Florida Agency for Health Care Administration

SFY 2023–2024 Encounter Data Validation Study: Aggregate Report

July 2024

HSAG HEALTH SERVICES ADVISORY GROUP

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Glossary of Acronyms

AHCA.. Agency for Health Care Administration
ARNP .... Advanced Registered Nurse Practitioner
CHIP..Children's Health Insurance Program
CMS..Centers for Medicare & Medicaid Services
CPT... Current Procedural Terminology
CRT ....Case Review Team
CY ....Calendar Year
DME .... Durable Medical Equipment
DOS ....Date of Service
DRG.. Diagnosis Related Group
DX ....Diagnosis
E&M...Evaluation and Management
EDV...Encounter Data Validation
EQR ....External Quality Review
FMMIS ....Florida Medicaid Management Information System
FQHC .... Federally Qualified Health Center
HCBS.. Home- and Community-Based Services
HCPCS ....Healthcare Common Procedure Coding System
HIPAA.. Health Insurance Portability and Accountability Act of 1996
HSAG .... Health Services Advisory Group, Inc.
ICD-10-CM .... International Classification of Diseases, 10th Revision, Clinical Modification
ICF/DD... Intermediate Care Facility/Developmentally Disabled
ICN .... Internal Control Number
ID... Identification
IRR ....Interrater Reliability
MM ....Member Months
MMA ....Managed Medical Assistance
MMIS ....Medicaid Management Information System
MRR ....Medical Record Review
NCCI ....National Correct Coding Initiative
NDC... National Drug Code
NPI... National Provider Identifier
PDO .... Participant Direction Option
PHI.. Personal Health Information
PML..Provider Master List
RHC.. Rural Health Clinic

Health Services Advisory Group, Inc. (HSAG), assessed the encounters submitted by the Florida Agency for Health Care Administration's (Agency's) contracted managed medical assistance (MMA) comprehensive plans and MMA plans and (collectively referred to as "plans"). The table below lists the contracted plans included in this study.

List of Contracted Plans

Plan Name	Plan Abbreviation	Shortened Name
MMA Comprehensive Plans		
Aetna Better Health of Florida, Inc.	AET-C	Aetna-C
Humana Medical Plan, Inc.	HUM-C	Humana-C
Molina Healthcare of Florida, Inc.	MOL-C	Molina-C
Simply Healthcare Plans, Inc.[1]	SIM-C	Simply-C
Sunshine State Health Plan, Inc.	SUN-C	Sunshine-C
UnitedHealthcare of Florida, Inc.	UNI-C	United-C
MMA Plans[2]		
AmeriHealth Caritas Florida, Inc.	AMH-M	AmeriHealth-M
South Florida Community Care Network, DBA Community Care Plan	CCP-M	Community Care Plan-M

[1] Vivida Health (Vivida-M) was acquired by Simply Healthcare Plans, Inc. as of November 1, 2022. As such, encounters submitted by Vivida Health are reported under Simply Healthcare Plans, Inc. Similarly, Lighthouse Health Plan, LLC merged with Simply Healthcare Plans, Inc. on February 2, 2021. Encounters associated with Lighthouse Health Plan are assessed under Simply Healthcare Plans, Inc. Simply Healthcare Plans, Inc. also purchased Miami Children's Health Plan, LLC and members were moved to Simply Healthcare Plans, Inc. effective May 2021. As such, encounters submitted by Miami Children's Health Plan, LLC are reported under Simply Healthcare Plans, Inc.

[2] Vivida Health was responsible for encounter data prior to being acquired by Simply Healthcare Plans, Inc. on November 1, 2022. Consequently, for the comparative analysis, Vivida Health managed all data extracts and communications, and the results were reported under Vivida Health. However, for the medical record review (MRR), members had to be continuously enrolled with the health plan for the entire year from January 1, 2022, through December 31, 2022. Members who were with Vivida Health prior to the acquisition did not qualify for inclusion (due to a gap beginning on November 1, 2022); hence, an MRR was not conducted for Vivida Health.

Introduction

Accurate and complete encounter data are critical to the success of a managed care program. State Medicaid agencies rely on the quality of the 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. Therefore, during state fiscal year (SFY) 2023–2024, the Agency continued to contract with HSAG to conduct an encounter data validation (EDV) study. The goal of the SFY 2023–2024 EDV study was to examine the extent to which institutional and professional encounters submitted to the Agency by its contracted MMA comprehensive plans and MMA plans (collectively referred to as plans) are complete and accurate.

Overview of Study

In alignment with 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,[1-1] HSAG conducted the following core evaluation activities for the EDV activity:

- Comparative analysis—Analysis of the Agency's electronic encounter data completeness and accuracy through a comparison between the Agency's electronic encounter data and the data extracted from the plans' data systems. The comparative analysis of the encounter data involved a series of analyses divided into two analytic sections:
  - First, HSAG assessed **record-level data completeness** using the following metrics for each encounter type (i.e., institutional, and professional):
    o The number and percentage of records present in the files submitted by the plans that were not found in the files submitted by the Agency (*record omission*).
    o The number and percentage of records present in the files submitted by the Agency but not found in the files submitted by the plans (*record surplus*).
  - Second, based on the number of records present in both data sources, HSAG examined **data element-level completeness and accuracy** for the key data elements based on the following metrics. Of note, element-level accuracy was limited to those records with values present in both the Agency's and the plans' submitted files:
    o The number and percentage of records with values present in the files submitted by the plans but not present in the files submitted by the Agency (*element omission*).
    o The number and percentage of records with values present in the files submitted by the Agency but not present in the files submitted by the plans (*element surplus*).

[1-1] 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:// https://www.medicaid.gov/sites/default/files/2023-03/2023-eqr-protocols.pdf. Accessed on: May 21, 2024.

o   The number and percentage of records with values missing from both the Agency and the plans' submitted files (***element missing values***).

o   The number and percentage of records with the same values in both the Agency's and the plans' submitted files (***element accuracy***).

o   The number and percentage of records present in both data sources with the same values for select data elements relevant to each encounter data type (***all-element accuracy***).

- Medical Record Review (MRR)—Analysis of the Agency's electronic encounter data completeness and accuracy through a comparison of the Agency's electronic encounter data to the information documented in the corresponding enrollees' medical records. HSAG used the below study indicators of data completeness and accuracy to report the record review results:

   – The percentage of key data elements (e.g., *Date of Service*) identified in the Agency's data warehouse that were not found in the enrollees' medical records (***medical record omission rate***).

   – The percentage of key data elements (e.g., *Date of Service*) identified in enrollees' medical records that were not found in the Agency's data warehouse (***encounter data omission rate***).

   – The percentage of diagnosis codes, procedure codes, and procedure code modifiers associated with validated dates of service from the electronic encounter data that were correctly coded based on the enrollees' medical records (***accuracy rate of coding***).

   – The percentage of dates of service present in both the Agency's encounter data and the medical records with the same values for all key data elements (***all-element accuracy rate***).

Snapshot of Findings, and Recommendations

Comparative Analysis

Record Completeness

Table 1-1 displays the statewide and plan range of record omission and record surplus rates by encounter type. Lower rates indicate better performance for both record omission and record surplus, and rates at or lower than 5.0 percent are generally considered low. Please note that this 5.0 percent threshold is defined by HSAG based on its experience and comparison of other states' results from similar activities. This benchmark is not set by a federal entity, nor is it a national average; rather, it reflects HSAG's understanding of acceptable performance levels in similar contexts. In Table 1-1, rates indicative of better performance are shaded green; rates indicative of worse performance are shaded pink.

Table 1-1—Encounter Data Completeness Summary

Encounter Type	Record Omission[1]		Record Surplus[2]	
	Statewide Rate	Plan Range	Statewide Rate	Plan Range
Institutional	34.0%	1.5%–59.7%	10.0%	2.2%–31.2%
Professional	30.6%	0.9%–55.7%	15.0%	0.4%–35.9%

[1] Records present in the plan-submitted files but not found in the Agency-submitted files.
[2] Records present in the Agency-submitted files but not found in the plan-submitted files.

Figure 1-1 displays a graphic to demonstrate the overall performance (by the number of plans) on record omission and record surplus rates for institutional encounters.
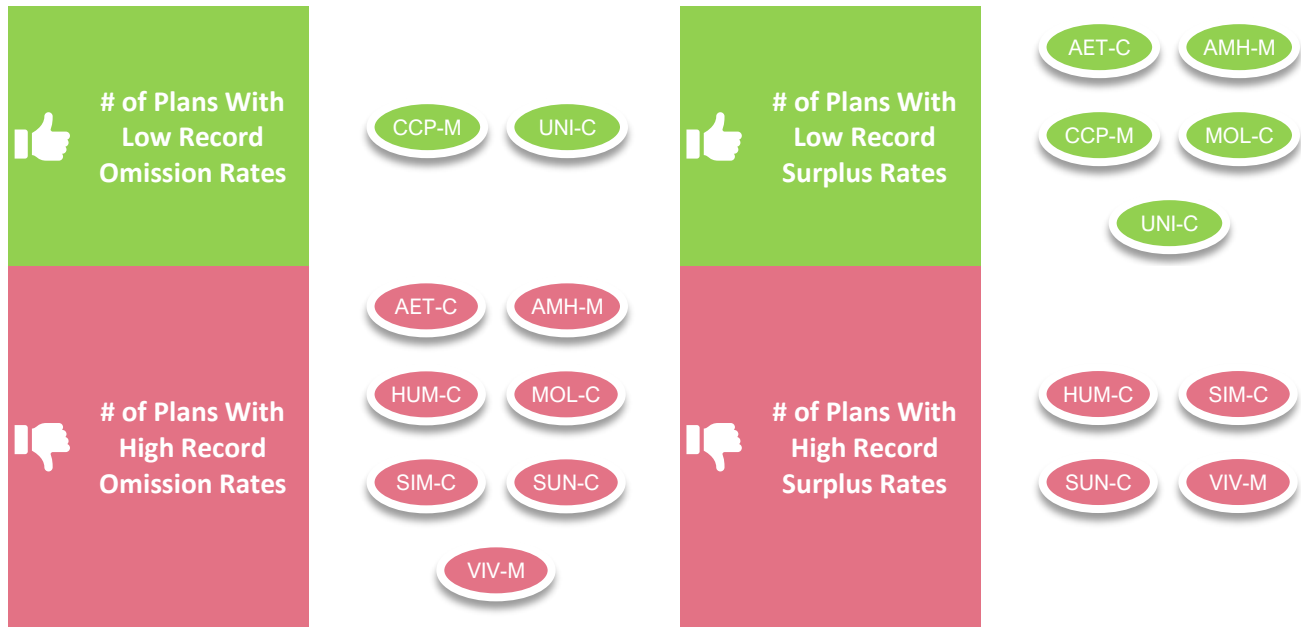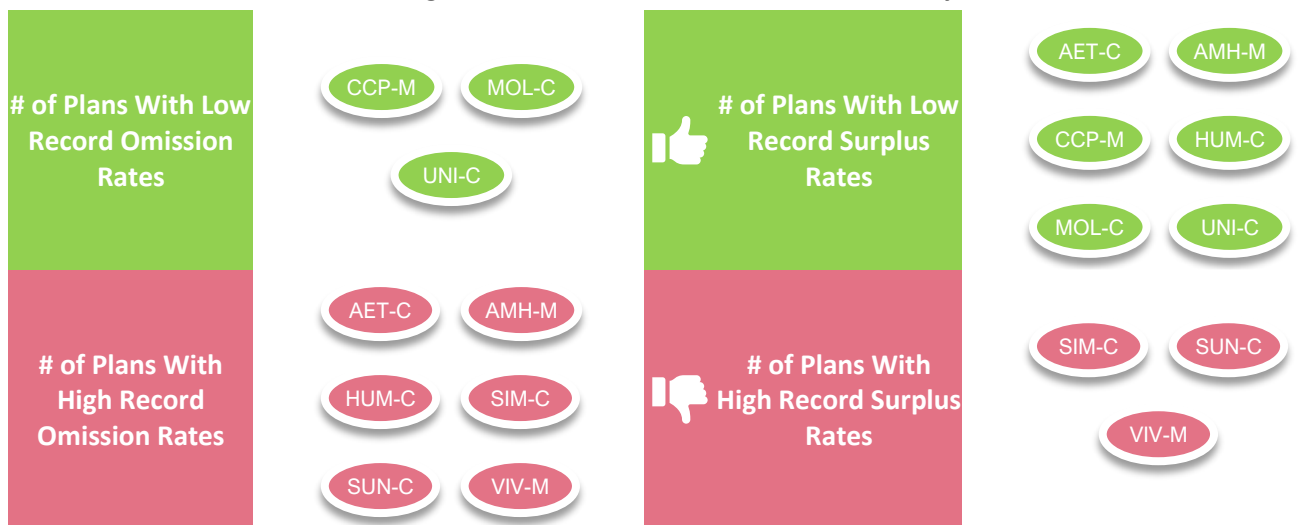
Figure 1-1—Institutional Encounter Summary

# of Plans With Low Record Omission Rates	# of Plans With Low Record Surplus Rates
CCP-M, UNI-C	AET-C, AMH-M, CCP-M, MOL-C, UNI-C

# of Plans With High Record Omission Rates	# of Plans With High Record Surplus Rates
AET-C, AMH-M, HUM-C, MOL-C, SIM-C, SUN-C, VIV-M	HUM-C, SIM-C, SUN-C, VIV-M

Figure 1-2 displays a graphic to demonstrate the overall performance (by the number of plans) on record omission and record surplus rates for professional encounters.

Figure 1-2—Professional Encounter Summary

# of Plans With Low Record Omission Rates	# of Plans With Low Record Surplus Rates
CCP-M, MOL-C, UNI-C	AET-C, AMH-M, CCP-M, HUM-C, MOL-C, UNI-C

# of Plans With High Record Omission Rates	# of Plans With High Record Surplus Rates
AET-C, AMH-M, HUM-C, SIM-C, SUN-C, VIV-M	SIM-C, SUN-C, VIV-M

Findings: The statewide record omission and surplus rates for institutional encounters were notably high (i.e., above 5.0 percent), suggesting discrepancies at the record level when comparing the plan-submitted files to the Agency-submitted files. Seven plans (Aetna-C, AmeriHealth-M, Humana-C, Molina-C, Simply-C, Sunshine-C, and Vivida-M) contributed to the high record omission rate, with two plans (Aetna-C and Sunshine-C) showing rates as high as 59.7 percent and 49.2 percent, respectively. Reasons for the high omission rates varied among plans, including exclusion of denied claim lines, plan-denied or voided encounters, and reporting errors. Similarly, four plans (Humana-C, Simply-C, Sunshine-C, and Vivida-M) contributed to the high record surplus rate, with reasons including system query errors, plan-denied records, and reporting inaccuracies related to claim statuses.

The statewide record omission and surplus rates for professional encounters were notably high (i.e., above 5.0 percent), suggesting discrepancies at the record level when comparing the plan-submitted files to the Agency-submitted files. Six plans (Aetna-C, AmeriHealth-M, Humana-C, Simply-C, Sunshine-C, and Vivida-M) contributed to the high record omission rate, with one plan (Sunshine-C) showing a particularly high rate at 55.7 percent. Reasons for the high omission rates varied, including exclusion of denied claim lines, plan-denied or voided encounters, and discrepancies in claim statuses. Three plans (Simply-C, Sunshine-C, and Vivida-M) contributed to the high statewide record surplus rate, with reasons including plan-denied encounters and discrepancies in transaction identification numbers. Additionally, one plan (Sunshine-C) noted discrepancies in claim statuses.

Data Element Completeness and Accuracy

Table 1-2 displays the statewide data element omission, surplus, and accuracy results for key data elements evaluated from the institutional and professional encounters. For data element omission and surplus, lower rates indicate better performance, whereas for element accuracy, higher rates indicate better performance. Generally, for element omission and element surplus, rates at or lower than 5.0 percent are considered low, whereas for element accuracy, rates at or greater than 95.0 percent are considered high. Please note that both the 5.0 percent threshold for data element omission and surplus and the 95.0 percent threshold for element accuracy are defined by HSAG based on its experience and comparison of other states' results from similar activities. These benchmarks are not set by a federal entity, nor are they national averages; rather, they reflect HSAG's understanding of acceptable performance levels in similar contexts. In Table 1-2, rates indicative of better performance are shaded green; rates indicative of worse performance are shaded pink.

Table 1-2—Element Omission, Surplus, and Accuracy Rates: Institutional and Professional Encounters

Key Data Element	Institutional			Professional		
	Omission	Surplus	Accuracy Rate	Omission	Surplus	Accuracy Rate
Enrollee ID	0.0%	0.0%	>99.9%	0.0%	0.0%	99.9%
Header Service From Date	0.0%	0.0%	99.9%	0.0%	0.0%	98.3%
Header Service To Date	0.0%	0.0%	99.0%	0.0%	0.0%	97.8%
Detail Service From Date	0.0%	<0.1%	99.0%	0.0%	0.0%	99.8%

Key Data Element	Institutional			Professional		
	Omission	Surplus	Accuracy Rate	Omission	Surplus	Accuracy Rate
Detail Service To Date	0.0%	<0.1%	98.7%	0.0%	<0.1%	99.8%
Admission Date	5.6%	<0.1%	>99.9%			
Billing Provider NPI	<0.1%	<0.1%	91.7%	<0.1%	<0.1%	73.3%
Attending Provider NPI	1.7%	<0.1%	98.2%			
Rendering Provider NPI				<0.1%	1.8%	97.6%
Referring Provider NPI	2.7%	0.0%	96.4%	21.6%	0.1%	94.6%
Primary Diagnosis Code	<0.1%	<0.1%	98.8%	<0.1%	0.0%	90.7%
Secondary Diagnosis Code[1]	4.9%	8.6%	61.1%	12.5%	<0.1%	61.5%
Procedure Code (Current Procedural Terminology [CPT]/Healthcare Common Procedure Coding System [HCPCS])	0.1%	<0.1%	>99.9%	<0.1%	0.0%	>99.9%
Procedure Code Modifier[2]	0.7%	<0.1%	98.8%	0.2%	<0.1%	99.1%
Units of Service	0.0%	0.0%	65.8%	0.0%	<0.1%	80.2%
Surgical Procedure Code[3]	<0.1%	1.5%	68.1%			
National Drug Code (NDC)	12.3%	0.0%	NA[4]	2.8%	0.0%	NA[4]
Revenue Code	0.0%	0.0%	99.8%			
Diagnosis Related Group (DRG)	1.1%	1.1%	31.6%			
Header Paid Amount	<0.1%	0.0%	95.5%	3.2%	0.0%	79.8%
Detail Paid Amount	<0.1%	0.0%	93.7%	3.2%	0.0%	83.3%

[1] All submitted secondary diagnosis codes were ordered and concatenated as a single data element.
[2] All submitted procedure code modifiers were ordered and concatenated as a single data element.
[3] All submitted surgical procedure codes were ordered and concatenated as a single data element.
[4] NA indicates not applicable since no records had values present in both data sources.
Note: Gray cells indicate that data elements were not evaluated for certain encounter types.

Findings: Overall, across both institutional and professional encounters, the completeness of encounter data elements was generally high, with low omission and surplus rates, mostly below 5.0 percent. However, some exceptions were noted. For institutional encounters, *Admission Date* and *NDC* data elements had high omission rates, while the *Secondary Diagnosis Code* data element had a high surplus rate.

The high omission rate for the *Admission Date* data element was due to one plan (AmeriHealth-M) including these values incorrectly and another plan (Molina-C) not including these values in its first encounter submission to Florida Medicaid Management Information System (FMMIS). Similarly, the *NDC* omission rate was attributed to the Agency's lack of data population.

Regarding professional encounters, both *Referring Provider NPI* and *Secondary Diagnosis Code* data elements showed relatively low completeness, with high overall omission rates. Four plans (Aetna-C, Humana-C, Molina-C, and Sunshine-C) contributed to the high *Referring Provider NPI* omission rate, citing various reasons such as incorrect logic in data processing and this data element not being required in original submissions. The *Secondary Diagnosis Code* omission rate was due to the Agency's limitation of four codes compared to plans' 25 codes.

Overall, accuracy for institutional encounters was high, with 13 of 19 key data elements showing an accuracy rate of at least 95.0 percent. For professional encounters, over half of the data elements assessed had high accuracy rates, with eight of 15 key data elements exceeding 95.0 percent accuracy.

For multiple plans, the accuracy issues in both institutional and professional encounters were attributed to various factors:

- *Billing Provider NPI*: Possible discrepancies arose due to reporting errors and to variations in the Provider Master List (PML) versions used by the plans. It is important to note that the Agency does not utilize the PML; instead, it relies on current data from FMMIS.

- *Referring Provider NPI*: Two plans (Aetna-C and Sunshine-C) experienced inaccuracies, with one plan (Aetna-C) citing incorrect data logic in pulling from the claims processing system.

- *Primary Diagnosis Code*: For professional encounters, accuracy issues affected eight plans (all plans except Sunshine-C), with reasons ranging from reporting errors and mismatches between submitted and required codes.

- *Secondary Diagnosis Code*: For professional encounters, all plans had inaccuracies; for institutional encounters, five plans (Aetna-C, Community Care Plan-M, Humana-C, Simply-C, and Vivida-M) had inaccuracies. Reasons varied, including discrepancies in the number of diagnosis codes submitted and errors in pulling data.

- *Units of Service*: All plans exhibited inaccuracies, including issues such as submitting invalid character values or mismatches between submitted and accepted units.

- *Surgical Procedure Code*: Three plans (Humana-C, Molina-C, and Simply-C) reported inaccuracies attributed to either data query errors or missing primary surgical codes.

- *DRG*: Inaccuracies affected five plans (Humana-C, Molina-C, Simply-C, Sunshine-C, and Vivida-M), partly due to discrepancies in the number of digits in submitted codes.

- *Header Paid Amount*: Five plans (Aetna-C, AmeriHealth-M, Molina-C, Sunshine-C, and United-C) had inaccuracies, with discrepancies due to the differences in handling capitated claims or differences in how amounts were calculated.

- *Detail Paid Amount*: Inaccuracies affected six plans (Aetna-C, AmeriHealth-M, Humana-C, Molina-C, Sunshine-C, and United-C), with issues such as data query errors and discrepancies in capitated amounts.

Recommendations: Based on the comparative analysis results, HSAG recommends the following to the Agency to improve encounter data completeness and accuracy:

- The comparative analysis indicated significant discrepancies at the record level between the plan-submitted files and the Agency-submitted files. HSAG recommends that the Agency closely collaborate with the plans to address these discrepancies. This includes continued efforts to monitor and verify encounter data submissions regularly.

- Several plans did not submit encounters identified as plan denied to the Agency. While a plan can deny encounters for various reasons (e.g., denial due to lack of prior authorization, out-of-network provider, or exclusion of service), in most instances, services were rendered to the enrollee and should be reported for utilization tracking. Although the previous contract stated that submitting denied encounters was optional, the Agency's new Statewide Medicaid Managed Care (SMMC) contracts require that these encounters be submitted. This change ensures accurate reporting of services provided, as recommended in the prior year's EDV activity.

- A few plans reported system query errors when extracting data for the EDV study. Plans should review and implement standard quality controls to ensure accurate data extracts from their respective systems. Standardizing data extraction procedures and enhancing quality controls will help reduce errors associated with data extraction.

- Discrepancies were observed due to reporting errors and to variations in the PML versions used by the plans. The Agency, however, does not utilize the PML when processing encounters, relying instead on current data from FMMIS. To maintain the accuracy of NPI information, HSAG recommends that plans ensure their provider information extracts are sourced directly from their claims systems.

- For professional encounters, discrepancies were noted regarding the Agency's limitation of capturing only four diagnosis codes. HSAG recommends that the Agency capture all diagnosis codes to ensure comprehensive enrollee information. This approach supports accurate risk adjustment, enhances clinical decision making, improves quality measures, facilitates detailed data analysis, promotes better coordination of care, and aids in the identification of health trends.

- While many key data elements showed high completeness and accuracy rates, some elements had low accuracy rates. HSAG recommends that the Agency work with the specific plans to resolve issues related to these data elements. This involves clarifying the requirements for submitting, collecting, and reporting these data elements to improve the overall data quality.

By implementing these recommendations, the Agency can increase the completeness and accuracy of encounter data, leading to more reliable reporting and enhanced data quality for better decision making.

Medical Record Review Findings

Encounter Data Completeness

Table 1-3 displays the statewide medical record omission and encounter data omission rates for each key data element from the MRR component.

Table 1-3—Encounter Data Completeness

Key Data Element	Medical Record Omission[1]		Encounter Data Omission[2]	
	All Plans' Rate	Plan Range	All Plans' Rate	Plan Range
Date of Service	8.2%	0.0%–29.0%	5.7%	1.0%–9.2%
Diagnosis Code	10.4%	2.3%–32.3%	3.6%	1.0%–5.6%
Procedure Code	13.7%	4.0%–33.3%	13.2%	4.8%–24.7%
Procedure Code Modifier	26.3%	14.9%–47.4%	3.1%	0.0%–8.6%

[1] Services documented in the encounter data but not supported by the enrollees' records.

[2] Services documented in the enrollees' records but not in the encounter data.

Findings: Omissions identified in the medical records (services reported in the encounter data but not supported in the medical records) and omissions identified in the encounter data (services documented in the medical records but not reported in the encounter data) illustrate discrepancies in completeness of the Agency's encounter data.

Overall, the data elements (i.e., *Date of Service, Diagnosis Code, Procedure Code*, and *Procedure Code Modifier*) within the Agency's encounter data were not well supported by the enrollees' medical records. This is evidenced by high medical record omission rates, ranging from 8.2 percent to 26.3 percent. Notably, these high medical record omission rates were significantly affected by the high non-submission rates of medical records for two of the eight plans (Sunshine-C and United-C). In the analysis, when no medical records were submitted, all data elements associated with the requested record were considered medical record omissions.

The overall encounter data omission rates show that three key data elements (i.e., *Date of Service, Diagnosis Code,* and *Procedure Code Modifier*) were well supported by the information found in the Agency's electronic encounter data, with omission rates of less than 6.0 percent. In contrast, the *Procedure Code* data element documented in the medical records was not well supported by the encounter data, as 13.2 percent of the procedure codes documented in the medical records were absent from the Agency's encounter data.

Encounter Data Accuracy

Table 1-4 displays the statewide accuracy rates for each key data element and the all-element accuracy rate.

Table 1-4—Encounter Data Accuracy Summary

Key Data Elements	All Plan Rate	Plan Range	Inaccuracy Reasons
Diagnosis Code	99.5%	98.8%–99.9%	Inaccurate Code: 93.3% Specificity Error: 6.7%
Procedure Code	97.8%	94.4%–99.8%	Inaccurate Code: 96.5% Higher Level of Service in Medical Record: 0.0% Lower Level of Service in Medical Record: 3.5%
Procedure Code Modifier	100%	100%–100%	—
All-Element Accuracy[1]	71.1%	62.7%–75.1%	—

[1] 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.

Findings: Overall, when key data elements (i.e., *Diagnosis Code, Procedure Code,* and *Procedure Code Modifier*) were present in both the Agency's encounter data and the enrollees' medical records and were evaluated independently, they were found to be highly accurate. Over 97.0 percent of each of these elements matched accurately at the statewide level, indicating a strong alignment between the encounter data and the enrollees' medical records when the data were present in both sources. However, overall, about 71.0 percent of the dates of service present in both sources accurately represented all three data elements (i.e., *Diagnosis Code, Procedure Code,* and *Procedure Code Modifier*) when compared to the enrollees' medical record. At the plan level, the all-element accuracy rate varied, ranging from 62.7 percent to 75.1 percent.

Recommendations: Based on MRR results, HSAG recommends the following to the Agency to improve encounter data completeness and continue to maintain accurate documentation.

- Medical record submission rates were low for two of six plans, impacting the medical record omission study indicators for all key data elements. Non-submission due to non-responsive providers was a common issue for most plans. Accurate medical records are crucial for analyses using the encounter data to reflect the actual care provided to enrollees. As such, the Agency should consider the following actions to strengthen oversight of medical record procurement requirements:
  - Collaborate with plans to educate providers on the importance of accurately documenting and coding services that occurred.
  - Enhance contract requirements to emphasize the need for providers' timely and responsive submission of medical records.

– Implement measures to ensure timely submission of medical records and encourage plans to actively communicate with non-responsive providers. Address noncompliant providers through appropriate measures.

- Since the results of the MRR are dependent on the plans' submission of complete and accurate supporting documentations, HSAG recommends that the Agency establish record submission standards. These standards will ensure plans are more responsive in procuring requested records, leading to more representative results of the actual documentation available.

- Accuracy rates were high and encounter data omission rates were low except for the *Procedure Code* element. HSAG recommends that the Agency and plans continue their current efforts in maintaining comprehensive and accurate encounter data information. Plans should use feedback from these findings to identify specific areas needing improvement.

By implementing these recommendations, the completeness and accuracy of encounter and medical record data can be enhanced. Addressing challenges in medical record procurement will lead to more comprehensive data for analyses, contributing to better-informed clinical decisions and enhanced healthcare outcomes for plan enrollees.

Background

Based on the approved scope of work, HSAG worked with the Agency's analytic team to develop the data submission requirements documents for conducting the EDV study. These documents included a brief description of the SFY 2023–2024 EDV study, a description of the review period, requested encounter data type(s), required data fields, and the procedures for submitting the requested data files to HSAG. Once finalized, the submission requirements were submitted to both the Agency and the plans to guide the extraction and collection of study data. The requested encounter data fields included key data elements evaluated in the EDV study. The Agency and the plans were required to submit all encounter data records with dates of service from January 1, 2022, through December 31, 2022, and submitted to the Agency on or before August 31, 2023. The anchor date of August 31, 2023, allowed enough time for calendar year (CY) 2022 encounters to be submitted, processed, and available for evaluation in the Agency's data warehouse. HSAG also requested that the Agency provide supporting data files related to enrollment, demographics, and providers associated with the encounter files.

The encounter files received from the Agency and the plans were used to examine the extent to which the data extracted and submitted were reasonable and complete. HSAG generated the Agency- and plan-specific file review reports, highlighting any major discrepancies, anomalies, or issues identified in the encounter data submissions. HSAG's review involved multiple methods and evaluated the following:

- Data extraction—Extracted based on the data requirements document.
- Percent present—Required data fields are present on the file and have values in those fields.
- Percent with valid values—The values are the expected values; e.g., valid International Classification of Diseases, 10th Revision, Clinical Modification (ICD-10-CM) codes in the diagnosis field.
- Evaluation of matching claim numbers—The percentage of claim numbers matching between the data extracted from the Agency's data warehouse and the plans' data submitted to HSAG.

Encounter Volume Completeness and Reasonableness

Capturing, sending, and receiving encounter data has historically been difficult and costly for the plans and Agency alike. The encounter data collection process is lengthy and has many steps wherein data can be lost, or errors can be introduced into submitted data elements. Assessment of the completeness and accuracy of encounter data provides insight into areas that need improvement for these processes and quantifies the general reliability of encounter data. These analyses were performed with the key data elements as individual units of assessment at the aggregate level for the encounter data sources (the plans' encounter systems and the Agency's encounter system) and stratified by individual plan.

Encounter Data Submission by the Agency and the Plans

HSAG received the initial set of data files from the plans in November 2023. All encounters submitted by the plans to HSAG underwent a preliminary file review to ensure that the submitted data files were generally comparable to the encounters extracted and submitted by the Agency. HSAG provided a preliminary file review results document to each plan identifying data file issues noted during the review. Additionally, HSAG provided example records in which discrepancies were identified when compared to the Agency-submitted files during the review of the plans' initial data submission.

Table 2-1 displays the encounter data volume submitted by the Agency and the initial/resubmitted data files submitted by the plans. The table highlights the number of records submitted by each source as well as the percentage difference in counts relative to Agency's data between the two sources. As noted in the "Encounter Data Validation Methodology" section, both the Agency and the plans were required to supply the same data (i.e., final status claims/encounters that were submitted to the Agency on or before August 31, 2023, for dates of service from January 1, 2022, through December 31, 2022).

Table 2-1—Encounter Data Submission by the Agency and the Plans (January 1, 2022–December 31, 2022)

Plan	Institutional			Professional		
	Records Submitted		Percent Difference (Relative to Agency Data)	Records Submitted		Percent Difference (Relative to Agency Data)
	Agency	Plan		Agency	Plan	
Comprehensive Plans						
AET-C	591,266	1,425,713	(141.1%)	3,358,614	4,183,537	(24.6%)
HUM-C	7,504,514	7,846,051	(4.6%)	19,787,652	20,797,630	(5.1%)
MOL-C	1,234,989	1,255,932	(1.7%)	2,864,663	2,860,239	0.2%
SIM-C	6,123,660	6,415,242	(4.8%)	19,969,282	19,729,197	1.2%
SUN-C	12,034,905	21,570,324	(79.2%)	36,154,115	55,040,507	(52.2%)
UNI-C	1,709,278	1,697,803	0.7%	7,215,541	7,476,540	(3.6%)
MMA Plans						
AMH-M	709,634	755,398	(6.4%)	2,450,898	2,774,334	(13.2%)
CCP-M	365,578	358,233	2.0%	1,092,590	1,085,273	0.7%
All Plans	**30,273,824**	**41,324,696**	**(36.5%)**	**92,893,355**	**113,947,257**	**(22.7%)**

Key Findings: Table 2-1

- For institutional encounters, the Agency submitted 36.5 percent fewer records than the plans. While most plans had relatively comparable numbers of institutional encounter records submitted for the study compared to the Agency-submitted records, Aetna-C and Sunshine-C both had relatively higher

percentages of records. The notable difference in record counts between Aetna-C and the Agency was attributed to Aetna-C's submission of denied claim lines to HSAG, which were excluded from the original submission to the Agency. Sunshine-C noted that its submitted data, which tied with financials, included statuses such as accepted, rejected, and submitted, and it also noted a few claims with a "scrubbed" status that should not have been included. "Scrubbed" typically refers to the process of cleaning or refining data to ensure accuracy, consistency, and compliance with regulations or standards.

- For professional encounters, the Agency submitted 22.7 percent fewer records than the plans. Similar to institutional encounters, most plans had relatively comparable numbers of professional encounters submitted for the study when compared to the Agency's submitted records. However, both Aetna-C and Sunshine-C had relatively higher percentages of records submitted, which contributed to the plans having more records compared to the Agency submissions.

Utilization Statistics

Examining the volume of encounters submitted by a plan can provide insights into the completeness of the Agency's encounter data. Lags in encounter submissions were accounted for in the data collection period by requesting only finalized records submitted to the Agency within the study period from participating plans. The evaluation of "encounters" in this section refers to the unique combination of plan, enrollee identification (ID), provider number/national provider identifier (NPI), and date of service. Since only unique combinations of these data elements were considered, duplicate records were removed.

Overall, the encounter counts reflect the number of encounters that a plan's enrollees experienced. Additionally, to normalize the encounter counts by the enrollee counts, the encounter counts per 1,000 member months (MM) were also calculated. The MM presented were calculated based on all enrollees enrolled with the participating plans.

Table 2-2 provides a general overview of the average utilization per enrollee by plan from the beginning of CY 2022 through December 31, 2022 (January 1, 2022, through December 31, 2022) for institutional and professional encounters.

Table 2-2—Encounter Data Overview

Plan	Average Number of Enrollees per Month[1]	Institutional		Professional	
		Total Number of Encounters[2]	Total Encounters per 1,000 MM[3]	Total Number of Encounters[2]	Total Encounters per 1,000 MM[3]
Comprehensive Plans					
AET-C	194,566	199,744	86	1,616,081	692
HUM-C	791,326	1,035,520	109	7,912,727	833
MOL-C	143,552	175,303	102	1,366,897	793
SIM-C	785,360	973,284	103	7,299,045	774
SUN-C	1,608,746	2,750,404	142	22,544,032	1,168
UNI-C	393,120	467,344	99	3,634,248	770

Plan	Average Number of Enrollees per Month[1]	Institutional		Professional	
		Total Number of Encounters[2]	Total Encounters per 1,000 MM[3]	Total Number of Encounters[2]	Total Encounters per 1,000 MM[3]
MMA Plans					
AMH-M	126,205	112,187	74	1,058,472	699
CCP-M	61,313	64,324	87	453,877	617
All Plans	**4,104,189**	**5,778,110**	**117**	**45,885,379**	**932**

[1] The average number of enrollees was calculated by dividing the total number of MM by 12 to align with the number of months in the encounter data for the review period of January 1, 2022, through December 31, 2022.

[2] An encounter was defined by a unique combination of plan, enrollee ID, provider ID number, and date of service in the encounter data for the review period of January 1, 2022, through December 31, 2022.

[3] The total encounters per 1,000 MM rate was calculated by dividing the total number of encounters by the total MM for the same review period and multiplying the results by 1,000.

Key Findings: Table 2-2

- For institutional encounters, nearly 5.8 million encounters occurred during the study period, averaging 117 institutional encounters per 1,000 MM. The encounters per 1,000 MM ranged from 74 (AmeriHealth-M) to 142 (Sunshine-C).

- For professional encounters, nearly 46 million encounters occurred during the study period, averaging 932 professional encounters per 1,000 MM. The encounters per 1,000 MM ranged from 617 (Community Care Plan-M) to 1,168 (Sunshine-C).

Monthly Variations of Encounters for Dates of Service

This section highlights the overall encounter data volume trends over time for the Agency and the plans for institutional and professional encounters.

Examination of the volume of encounters submitted each month provided additional insight into potential problems with data completeness observed in greater context in the comparative analysis and MRR portions of this assessment. The monthly assessment of encounter volume included only those encounters documented within the plans' systems and submitted to the Agency with a date of service during the study period. Figure 2-1 and Figure 2-2 illustrate the overall encounter data volume trends over time by the Agency and the plans. A unique combination of key data fields consisting of plan, enrollee ID, provider ID number, and date of service was used to uniquely define an encounter.
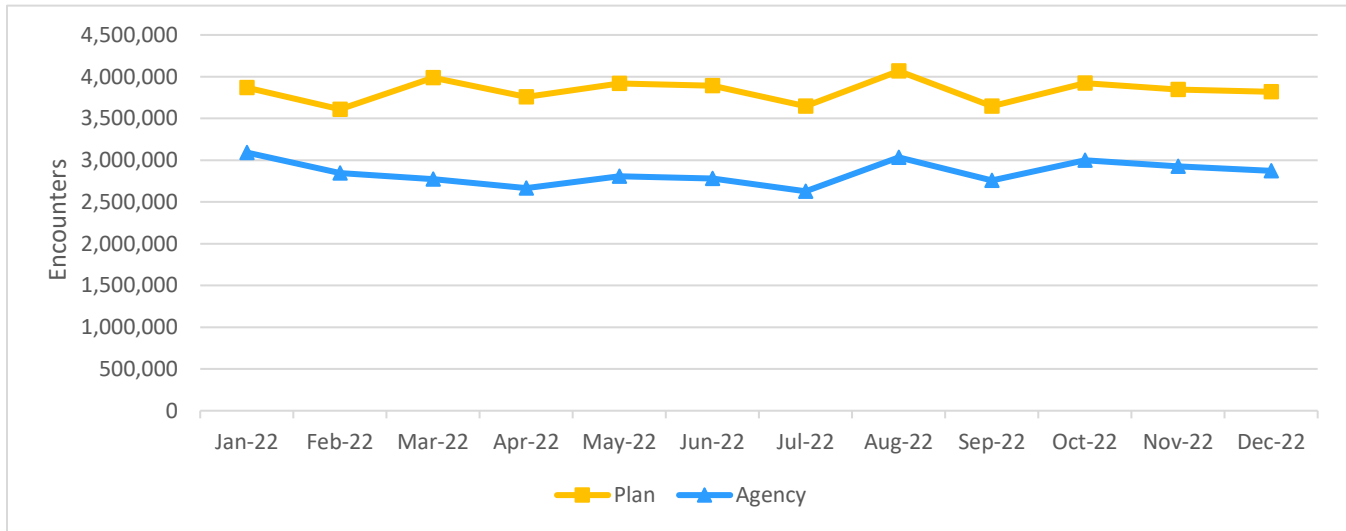
Figure 2-1—Monthly Variations in Institutional Encounters for the Agency and the Plans
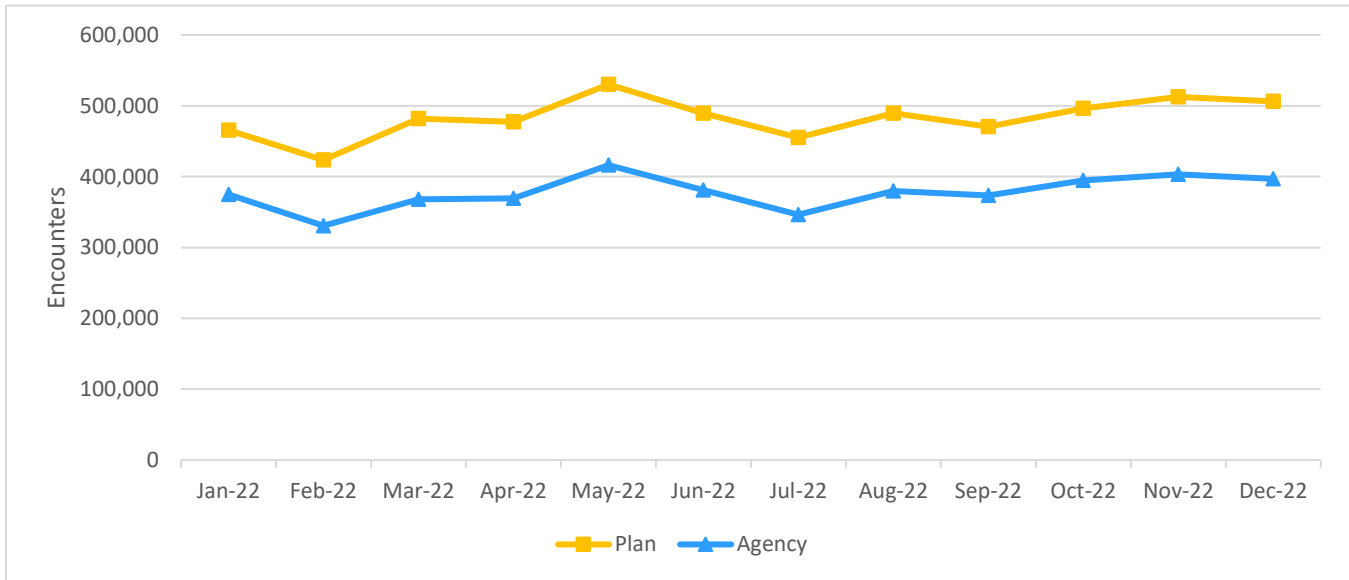
Key Findings: Figure 2-1

- Each month, there were consistently more plan-submitted institutional encounters compared to those submitted by the Agency. Notably, both sets of encounters, from the Agency and the plans, exhibited a similar monthly trend overall.

- The variance in the monthly encounter volume between the two sources (i.e., the Agency and plans) was primarily attributed to Aetna-C's and Sunshine-C's encounter submissions. Aetna-C's submission to HSAG included denied claim lines, which were excluded from its original submission to the Agency. Sunshine-C, on the other hand, submitted a substantially larger volume of institutional encounters compared to the Agency's submissions (21.6 million versus 12 million).

Figure 2-2—Monthly Variations in Professional Encounters for the Agency and the Plans

Key Findings: Figure 2-2

- Similar to the monthly variation in institutional encounters, there were more plan-submitted professional encounters compared to the Agency-submitted encounters each month. Of note, both the Agency and plan submissions exhibited a similar trend by month overall.

- The difference in the monthly encounter volume between the two sources (i.e., the Agency and plan) was mostly attributed to Aetna-C's and Sunshine-C's encounter submissions. Aetna-C submitted denied claim lines to HSAG but excluded those denied records from the original submission to the Agency. Sunshine-C, on the other hand, submitted a substantially larger volume of professional encounters compared to the Agency's submissions (55 million versus 36.2 million).

Encounter Field Completeness and Reasonableness

To determine the completeness and reasonableness of the Agency's and the plans' electronic claims/encounter data, HSAG examined the percentage of key data elements (e.g., *Provider NPI* and *Procedure Code*) that contained data and were populated with expected values. As discussed in the "Encounter Data Validation Methodology" section, the study was restricted to specific criteria with the assumption that encounters received from both sources were in their final status as requested in the data submission requirements document. Key data elements with values not populated were evaluated for completeness but did not contribute to the calculations for accuracy (i.e., percent not populated and percent valid). Accuracy rates were assessed based on whether submitted values were in the correct format and the data elements contained expected values (percent valid). For example, a record wherein the *Billing Provider NPI* was populated with a value of "000000000" would be considered to have a value present but not as having a valid value.

To determine the completeness and reasonableness of the Agency- and plan-submitted encounter data, HSAG evaluated each key data element based on the following metrics.

- Percent Not Populated: The required data elements were not present on the submitted file or, if data elements were present on the file, values were not populated in those data elements.

- Percent With Valid Values: The data elements have values present, which are the expected values.

Table 2-3 displays the key data elements and the associated criteria for validity for each encounter type included in this study.

Table 2-3—Key Encounter Data Elements

Key Data Element	Institutional	Professional	Criteria for Validity
Enrollee ID	√	√	In enrollment file supplied by the Agency
Header Service From Date	√	√	Header Service From Date is on or after the Paid Date, and on or before the Header Service To Date
Header Service To Date	√	√	Header Service To Date is on or after the Paid Date, and on or after the Header Service From Date
Detail Service From Date	√	√	Detail Service From Date is on or after the Paid Date, and on or before the Detail Service To Date
Detail Service To Date	√	√	Detail Service To Date is on or after the Paid Date, and on or after the Detail Service From Date
Diagnosis Code (1 through 4)	√	√	In ICD-10-CM diagnosis code set
Surgical Procedure Code (1 through 4)	√		In ICD-10-CM surgical procedure code set
Procedure Code (CPT/HCPCS)	√	√	In national CPT and HCPCS Procedure Code sets
NDC	√	√	In national NDC code sets
Revenue Code	√		In national revenue code sets
Billing Provider NPI	√	√	In provider file supplied by the Agency
Rendering Provider NPI		√	In provider file supplied by the Agency
Attending Provider NPI	√		In provider file supplied by the Agency
Referring Provider NPI	√	√	In provider file supplied by the Agency

Table 2-4 displays the percent not populated and valid rates for key data fields associated with the institutional encounters for data extracted from the Agency's and the plans' claims/encounter systems.

Table 2-4—Element Completeness (Percent Not Populated) and Accuracy (Percent Valid): Institutional Encounters

Data Element	Agency-Submitted Data		Plan-Submitted Data	
	Percent Not Populated	Percent Valid	Percent Not Populated	Percent Valid
Enrollee ID	0.0%	>99.9%	0.0%	87.4%
Header Service From Date	0.0%	100%	0.0%	100%
Header Service To Date	0.0%	>99.9%	0.0%	>99.9%
Detail Service From Date	0.0%	100%	<0.1%	>99.9%
Detail Service To Date	0.0%	100%	<0.1%	>99.9%
Billing Provider NPI	<0.1%	96.2%	<0.1%	98.4%
Attending Provider NPI[1]	2.0%	99.6%	0.4%	98.7%
Referring Provider NPI[1]	99.9%	98.5%	97.0%	96.9%
Procedure Code (CPT/HCPCS)[1]	23.2%	>99.9%	25.6%	99.8%
Revenue Code	0.0%	100%	<0.1%	>99.9%
NDC[1]	100%	NA	87.7%	98.0%
Diagnosis Code 1	<0.1%	>99.9%	<0.1%	>99.9%
Diagnosis Code 2[1]	29.3%	>99.9%	27.3%	>99.9%
Diagnosis Code 3[1]	52.3%	>99.9%	49.6%	>99.9%
Diagnosis Code 4[1]	66.7%	>99.9%	64.5%	99.9%
Surgical Procedure Code 1[1]	95.1%	>99.9%	95.7%	>99.9%
Surgical Procedure Code 2[1]	97.1%	>99.9%	97.5%	>99.9%
Surgical Procedure Code 3[1]	98.3%	>99.9%	98.5%	>99.9%
Surgical Procedure Code 4[1]	98.9%	>99.9%	99.1%	>99.9%

[1] *Attending Provider NPI, Referring Provider NPI, Procedure Code (CPT/HCPCS), NDC, Diagnosis Code 2, Diagnosis Code 3, Diagnosis Code 4, Surgical Procedure Code 1, Surgical Procedure Code 2, Surgical Procedure Code 3,* and *Surgical Procedure Code 4* data elements are situational (i.e., not required for every institutional transaction).

"NA" denotes that all records had values not populated for this data element; therefore, validity could not be assessed.

Key Findings: Table 2-4

- Data elements with values not populated within the Agency-submitted institutional encounters were relatively comparable to the plan-submitted institutional encounters for all data elements evaluated, except for the *NDC* data element.

- The Agency-submitted institutional encounters had 100 percent of values not populated for the *NDC* data element, while 87.7 percent of values were not populated in the plan-submitted encounters.
- Percent valid values were high for almost all evaluated data elements for both the Agency- and plan-submitted institutional encounters, except for the *Enrollee ID* data element.
  - The Agency-submitted institutional encounters had over 99.9 percent of values valid for the *Enrollee ID* data element, while only 87.4 percent of values were valid in the plan-submitted encounters.

Table 2-5 shows the percent not populated and valid rates for key data fields associated with the professional encounters for data extracted from the Agency's and the plans' claims/encounter systems.

Table 2-5—Element Completeness (Percent Not Populated) and Accuracy (Percent Valid): Professional Encounters

Data Element	Agency-Submitted Data		Plan-Submitted Data	
	Percent Not Populated	Percent Valid	Percent Not Populated	Percent Valid
Enrollee ID	0.0%	>99.9%	0.0%	76.9%
Header Service From Date	0.0%	>99.9%	0.0%	100%
Header Service To Date	0.0%	>99.9%	0.0%	>99.9%
Detail Service From Date	0.0%	>99.9%	0.0%	>99.9%
Detail Service To Date	0.0%	>99.9%	<0.1%	>99.9%
Billing Provider NPI	<0.1%	98.0%	<0.1%	99.6%
Rendering Provider NPI[1]	<0.1%	99.5%	1.3%	99.6%
Referring Provider NPI[1]	62.5%	99.4%	46.3%	97.5%
Procedure Code (CPT/HCPCS)	0.0%	>99.9%	<0.1%	>99.9%
NDC[1]	100%	NA	97.4%	94.1%
Diagnosis Code 1	<0.1%	>99.9%	0.0%	>99.9%
Diagnosis Code 2[1]	56.1%	>99.9%	53.4%	>99.9%
Diagnosis Code 3[1]	72.2%	>99.9%	69.4%	>99.9%
Diagnosis Code 4[1]	82.2%	>99.9%	79.8%	>99.9%

[1] *Rendering Provider NPI*, *Referring Provider NPI*, *NDC*, *Diagnosis Code 2*, *Diagnosis Code 3*, and *Diagnosis Code 4* data elements are situational (i.e., not required for every professional transaction).

"NA" denotes that all records had values not populated for this data element; therefore, validity could not be assessed.

Key Findings: Table 2-5

- The percent not populated values were comparable for many of the data elements in both the Agency-submitted and plan-submitted professional encounters, except for the *Referring Provider NPI*, and *NDC* data elements.
    - The Agency-submitted professional encounters had 62.5 percent of values not populated for the *Referring Provider NPI* data element, while 46.3 percent of values were not populated in the plan-submitted encounters.
    - For the *NDC* data element, the Agency-submitted professional encounters had 100 percent of values not populated, while 97.4 percent of values were not populated in the plan-submitted encounters.
- Percent valid values were high for almost all evaluated data elements in both the Agency- and plan-submitted professional encounters, except for the *Enrollee ID* data element.
    - The Agency-submitted professional encounters had over 99.9 percent of values valid for the *Enrollee ID* data element, while only 76.9 percent of values were valid in the plan-submitted encounters.

Background

This section presents findings from the results of the comparative analysis of encounter data maintained by the Agency and the plans. The analysis examined the extent to which encounters submitted by the plans and maintained in Florida's MMIS (and data subsequently extracted and submitted by the Agency to HSAG for the study) were accurate and complete when compared to data stored in the plans' data systems (which were extracted and submitted by the plans to HSAG for the study). Clarifications regarding defining "accurate" and "complete" are included in Appendix A. Encounter Data Validation Methodology.

HSAG requested both the Agency and the plans to submit the final status of the encounter in their data submissions for the study. The encounters included encounters that were transmitted via 837 Institutional (837I) or 837 Professional (837P) transactions. For purposes of this report, the encounters from the 837I and 837P transactions are referred to as "institutional" and "professional" encounters, respectively.

To compare the Agency's and the plans' submitted data, HSAG developed a match key, ensuring comparability between the two data sources. Data fields used in developing the match key may vary by plan and encounter type but generally included the *Internal Control Number* (*ICN*) field and the associated detail line sequence number. These data elements were concatenated to create a unique match key, which became the unique identifier for each encounter detail line in the Agency's and each plan's data. For records that did not match using the *ICN* field and the associated detail line sequence number, HSAG used the *Transaction Control Number* (*TCN*) along with the detail line sequence number to construct a second round of match key.

During the comparative analysis process, HSAG observed that the detail line numbers within the same claim did not align between the Agency and four of the plans (i.e., Aetna-C, AmeriHealth-M, Sunshine-C, and United-C), leading to lower accuracy rates for several key elements (e.g., *Procedure Code*, *Units of Service*, *Revenue Code*, *Detail Paid Amount*). To address this discrepancy, unique match keys were created by concatenating the *ICN* or *TCN* field with the *Procedure Code* for professional encounters, and the *Procedure Code* and *Revenue Code* fields for institutional encounters. These match keys are referred to as alternative match keys throughout the report.

Record Completeness

As described in the "Encounter Data Validation Methodology" section, two aspects of record completeness are used for each encounter data type—record omission and record surplus.

To assess discrepancies between two data sources (i.e., primary, and secondary), encounter record omission and surplus rates are utilized as summary metrics for analysis. The primary data source refers to data maintained by an organization (e.g., the plan) responsible for sending data to another organization (e.g., the Agency). The data acquired by the receiving organization is referred to as the secondary data

source. By comparing these two data sources (i.e., primary, and secondary) the analysis yields the percentage of records contained in one source and not the other, and vice versa. As such, encounter record omission refers to the percentage of encounters reported in the primary data source but missing from the secondary data source. For this analysis, the omission rate identifies the percentage of encounters reported by a plan but missing from the Agency's data. Similarly, the encounter record surplus refers to the percentage of encounters reported in the secondary data source (the Agency) but missing from the primary data source (the plan).

Encounter Data Record Omission and Record Surplus

Table 3-1 displays the number of plans by encounter type, with record omission rates (i.e., the percentage of records present in the files submitted by the plans that were not found in the Agency's files) based on rates at or lower than 5.0 percent (i.e., low) and higher than 5.0 percent (i.e., high).

Table 3-1 also displays the number of plans by encounter type, with record surplus rates (i.e., the percentage of records present in the Agency's files but not present in the files submitted by the plans) based on rates at or lower than 5.0 percent (i.e., low) and higher than 5.0 percent (i.e., high).

Lower rates indicate better performance for both record omission and record surplus. Green-shaded cells in the table indicate the number of plans with better performance, while pink-shaded cells indicate the number of plans with poorer performance. Fully detailed tables for each plan are provided in the plan-specific appendices.

Table 3-1—Record Omission and Record Surplus Rates by Encounter Type

Encounter Type	Record Omission		Record Surplus	
	Number of Plans With Rate ≤ 5%	Number of Plans With Rate > 5%	Number of Plans With Rate ≤ 5%	Number of Plans With Rate > 5%
Institutional	2	7	5	4
Professional	3	6	6	3

Key Findings: Table 3-1

- For institutional encounters, seven of the nine plans exhibited high record omission rates (i.e., exceeding 5.0 percent), with four of the nine plans showing high record surplus rates.
  - Seven plans (i.e., Aetna-C, AmeriHealth-M, Humana-C, Molina-C, Simply-C, Sunshine-C, and Vivida-M) had record omission rates greater than 5.0 percent (i.e., 59.7 percent, 9.9 percent, 17.5 percent, 5.3 percent, 16.0 percent, 49.2 percent, and 27.0 percent, respectively).
    - o Three plans (i.e., Aetna-C, AmeriHealth-M, and Humana-C) attributed their high record omission rates to the inclusion of denied claim lines in the data submitted to HSAG, which were excluded from their original submission to the Agency.
    - o After examining the discrepant example records provided to the plans, Molina-C clarified in its response that most of the record omission examples were reversals resulting from the

receipt of corrected claims. Additionally, Molina-C noted that the Agency appeared to have included only the final corrected claims in its submissions.

- o Simply-C reported that the missing encounters were either plan-denied, voided, or Agency-denied encounters.
- o Sunshine-C mentioned that its submitted data correlated with financials, with statuses listed as accepted, rejected, and submitted. Additionally, Sunshine-C highlighted that a few claims with a scrubbed status were erroneously included. Of note, HSAG observed that Sunshine-C submitted a substantially higher volume of institutional encounters compared to the Agency's submissions (21.6 million versus 12 million), which likely contributed to the high record omission rate.
- o Vivida-M attributed its high record omission rate to a reporting error, which has since been rectified.
- – Four plans (i.e., Humana-C, Simply-C, Sunshine-C, and Vivida-M) exhibited record surplus rates exceeding 5.0 percent (i.e., 13.7 percent, 12.0 percent, 9.0 percent, and 31.2 percent, respectively).
  - o Humana-C attributed the surplus to the system query used for pulling encounters with adjusted ICNs.
  - o Simply-C reported that the majority of the surplus records within the submitted files were plan denied.
  - o In its investigation, Sunshine-C claimed that surplus records were present in the submitted files. Sunshine-C noted that its submitted data aligned with financial statuses such as accepted, rejected, or submitted. Additionally, Sunshine-C noted the inclusion of a few claims with a scrubbed status that should have been excluded.
  - o Vivida-M acknowledged a reporting error as the cause of the high record surplus rate, confirming that the error had since been rectified.
- For professional encounters, six of the nine plans had high record omission rates, and three of the nine plans had high record surplus rates.
  - – Six plans (i.e., Aetna-C, AmeriHealth-M, Humana-C, Simply-C, Sunshine-C, and Vivida-M) had record omission rates greater than 5.0 percent (i.e., 22.6 percent, 12.0 percent, 6.3 percent, 6.2 percent, 55.7 percent, and 5.9 percent, respectively).
    - o Aetna-C, AmeriHealth-M, and Humana-C reported that the high record omission rates were due to the submission of denied claim lines to HSAG, which were excluded from their original submission to the Agency.
    - o Simply-C reported that the missing encounters were either plan-denied, voided, or agency-denied encounters.
    - o Sunshine-C stated that it was able to identify the omission records in the submitted files, noting that the submitted data correlated with financials having statuses as accepted, rejected, or submitted. Sunshine-C also reported that a few claims had a scrubbed status and should not have been included. Of note, HSAG observed that Sunshine-C submitted a substantially larger volume of professional encounters compared to the Agency's submissions (55 million versus 36 million), which likely contributed to the high record omission rate.

- o Vivida-M confirmed that the records matched the original encounter submission to the Agency, and Vivida-M found no discrepancies in its review.
- – Three plans (i.e., Simply-C, Sunshine-C, and Vivida-M) had record surplus rates greater than 5.0 percent (7.3 percent, 32.6 percent, and 35.9 percent, respectively).
  - o Simply-C mentioned that most surplus encounters were plan denied. In addition, Simply-C noted that if the encounter was submitted multiple times, the Agency would report the first transaction ICN instead of the most recent ICN, which may have contributed to the data discrepancy.
  - o Sunshine-C noted that its submitted data aligned with financials, having statuses as accepted, rejected, or submitted. Additionally, Sunshine-C reported that a few claims had a scrubbed status and should not have been included.
  - o Vivida-M confirmed that the records matched the original encounter submission to the Agency, and Vivida-M found no discrepancies in its review.

Data Element Completeness and Accuracy

Data element completeness measures were based on the number of records that matched in both the Agency's and plan's data files. Element omission and element surplus rates were evaluated to assess element-level completeness. The element omission rate represents the percentage of records with values present in the plan's submitted data files but not in the Agency's data files. Similarly, the element surplus rate reports the percentage of records with values present in the Agency's data files but not in the plan's submitted data files. The data elements are considered relatively complete when they have low element omission and surplus rates. Generally, based on HSAG's experience with other states, rates at or lower than 5.0 percent would be considered low at the element level.

This section also presents the data accuracy results by key data element and evaluates accuracy based on the percentage of records with values present in both data sources that contain the same values. Records with values missing in both data sources were not included in the denominator. The numerator is the number of records with the same non-missing values for a given data element. Higher data element accuracy rates indicate that the values populated for a data element in the Agency's submitted encounter data are more accurate.

Element Omission and Element Surplus

Table 3-2 displays the number of plans with data element omission and surplus rates for institutional encounters, based on rates at or lower than 5.0 percent (i.e., low) and higher than 5.0 percent (i.e., high). **For the element omission and element surplus indicators, lower rates indicate better performance**. Green-shaded cells in the table indicate the number of plans with better performance, while pink-shaded cells indicate the number of plans with poorer performance. Fully detailed tables for each plan are provided in the plan-specific appendices.

Table 3-2—Data Element Omission and Surplus: Institutional Encounters

Key Data Element	Omission		Surplus	
	Number of Plans With Rate ≤ 5%	Number of Plans With Rate > 5%	Number of Plans With Rate ≤ 5%	Number of Plans With Rate > 5%
Enrollee ID	9	0	9	0
Header Service From Date	9	0	9	0
Header Service To Date	9	0	9	0
Detail Service From Date	9	0	9	0
Detail Service To Date	9	0	9	0
Admission Date	7	2	9	0
Billing Provider NPI	9	0	9	0
Attending Provider NPI	7	2	9	0
Referring Provider NPI	9	0	9	0
Primary Diagnosis Code	9	0	9	0
Secondary Diagnosis Code[1]	5	4	8	1
Procedure Code (CPT/HCPCS)	9	0	9	0
Procedure Code Modifier[2]	9	0	9	0
Units of Service	9	0	9	0
Surgical Procedure Code[3]	9	0	9	0
NDC	1	8	9	0
Revenue Code	9	0	9	0
DRG	9	0	8	1
Header Paid Amount	9	0	9	0
Detail Paid Amount	9	0	9	0

[1] All submitted secondary diagnosis codes were ordered and concatenated as a single data element.

[2] All submitted procedure code modifiers were ordered and concatenated as a single data element.

[3] All submitted surgical procedure codes were ordered and concatenated as a single data element.

Key Findings: Table 3-2

- Overall, all plans had low omission rates (i.e., at or lower than 5.0 percent) for all data elements evaluated for the institutional encounters, except for *Admission Date*, *Attending Provider NPI*, *Secondary Diagnosis Code*, and *NDC* data elements.
  - AmeriHealth-M and Molina-C had high omission rates (i.e., above 5.0 percent) for the *Admission Date* data element (i.e., 84.5 percent and 76.3 percent, respectively). AmeriHealth-M indicated in its response that the plan incorrectly included the *Admission Date* values in the outpatient encounters. Molina-C noted that the *Admission Date* was not required in the original encounter submission to Florida Medicaid Management Information System (FMMIS), and therefore the values were absent from the Agency-submitted data.
  - Molina-C and Vivida-M had high omission rates for the *Attending Provider NPI* data element (i.e., 9.4 percent and 6.5 percent, respectively). Molina-C indicated that it was unable to determine why the *Attending Provider NPI* values were not included in the Agency data extract, and there appeared to be no issue from Molina-C's perspective. Conversely, Vivida-M acknowledged that the high omission rate was due to a reporting error, and that the error has since been rectified.
  - Aetna-C, Humana-C, Simply-C, and Vivida-M had high omission rates for the *Secondary Diagnosis Code* data element (i.e., 17.8 percent, 6.6 percent, 14.8 percent, and 11.9 percent, respectively).
    - During comparative analysis, HSAG noted that among records wherein *Secondary Diagnosis Code* values were only populated in Aetna-C-submitted encounters, approximately 50.1 percent had identical *Secondary Diagnosis Code* and *Primary Diagnosis Code* values. Aetna-C attributed the discrepancies to the method it used to create the HSAG data submission.
    - Humana-C indicated a system query issue used to pull the HSAG extract file. Humana-C also noted that its original encounter submission to FMMIS was accurate for this data element.
    - Vivida-M affirmed that the example discrepant records provided matched the encounter submissions to the Agency.
    - Based on investigation of the discrepant examples provided, Simply-C clarified that it mistakenly submitted the admitting diagnosis code as the primary diagnosis code (i.e., first diagnosis code), and the primary diagnosis code as the second diagnosis code. This resulted in the omission of the *Secondary Diagnosis Code* field, as Simply-C's *Secondary Diagnosis Code* field contained the principal diagnosis code, while the Agency did not include an additional diagnosis code.
  - Most plans showed high omission rates for the *NDC* data element, except for United-C (i.e., 4.4 percent). Among the other eight plans, the omission rates for this data element ranged from 9.2 percent to 14.2 percent. HSAG noted that there were no *NDC* values populated in the Agency-submitted institutional encounters. Based on investigation of the discrepant examples provided, most plans also confirmed that the *NDC* values submitted to HSAG were also present in their encounter submissions to the Agency.
- Overall, all plans had low surplus rates (i.e., at or lower than 5.0 percent) for all data elements evaluated for institutional encounters, except for the element surplus rates associated with the *Secondary Diagnosis Code* and *DRG* data elements.

- Humana-C exhibited a high surplus rate of 36.4 percent for the *Secondary Diagnosis Code* data element. Investigation based on the discrepant examples provided revealed that Humana-C's system query used to extract *Secondary Diagnosis Codes* contributed to the high surplus rate. Humana-C also confirmed that the original encounters submitted to FMMIS were accurate for this data element.
- Community Care Plan-M had a high surplus rate of 13.8 percent for the *DRG* data element. Community Care Plan-M indicated in its response that it intentionally omitted *DRG* values from the submission to HSAG. The plan further noted that according to the X12 guide, the *DRG* value is sourced from HI:DR, which is absent on the 837I transaction file submitted to the Agency.

Table 3-3 displays the number of plans with data element omission and surplus rates for professional encounters, based on rates at or lower than 5.0 percent (i.e., low) and higher than 5.0 percent (i.e., high). **For the element omission and element surplus indicators, lower rates indicate better performance**. Green-shaded cells in the table indicate the number of plans with better performance, while pink-shaded cells indicate the number of plans with poorer performance. Fully detailed tables for each plan are provided in the plan-specific appendices.

Table 3-3—Data Element Omission and Surplus: Professional Encounters

Key Data Element	Omission		Surplus	
	Number of Plans With Rate ≤ 5%	Number of Plans With Rate >5%	Number of Plans With Rate ≤ 5%	Number of Plans With Rate >5%
Enrollee ID	9	0	9	0
Header Service From Date	9	0	9	0
Header Service To Date	9	0	9	0
Detail Service From Date	9	0	9	0
Detail Service To Date	9	0	9	0
Billing Provider NPI	9	0	9	0
Rendering Provider NPI	9	0	8	1
Referring Provider NPI	5	4	9	0
Primary Diagnosis Code	9	0	9	0
Secondary Diagnosis Code[1]	0	9	9	0
Procedure Code (CPT/HCPCS)	9	0	9	0
Procedure Code Modifier[2]	9	0	9	0
Units of Service	9	0	9	0
NDC	9	0	9	0
Header Paid Amount	8	1	9	0
Detail Paid Amount	8	1	9	0

[1] All submitted secondary diagnosis codes were ordered and concatenated as a single data element.
[2] All submitted procedure code modifiers were ordered and concatenated as a single data element.

Key Findings: Table 3-3

- Overall, all plans had low omission rates (i.e., at or lower than 5.0 percent) for all data elements evaluated for the professional encounters, except for the *Referring Provider NPI*, *Secondary Diagnosis Code*, *Header Paid Amount*, and *Detail Paid Amount* data elements.
  - Four plans (i.e., Aetna-C, Humana-C, Molina-C, and Sunshine-C) had high omission rates (i.e., above 5.0 percent) for the *Referring Provider NPI* data element (i.e., 59.0 percent, 56.0 percent, 6.3 percent, and 14.5 percent, respectively). Based on investigation of the discrepant examples provided, Aetna-C reported that it was unable to access the data originally submitted to the Agency and linked encounter data to claims processing tables, resulting in incorrect referring provider details. Humana-C and Sunshine-C indicated that they submitted the appropriate values for the *Referring Provider NPI* data element on both the original encounters to FMMIS and the data extract file submitted to HSAG. Molina-C indicated in its response that the *Referring Provider NPI* values were not required for the original encounter data submitted to FMMIS.
  - All plans had high omission rates for the *Secondary Diagnosis Code* data element, with rates ranging from 5.8 percent to 23.0 percent. HSAG noted that the Agency captured up to four diagnosis codes for professional encounters, while plan-submitted encounters captured up to 25 diagnosis codes, which may contribute to the high omission rates across all plans. Plans provided the following explanations for the discrepancies:
    - Aetna-C believed the discrepancies were due to claim line number mismatches, as the plan included both paid and denied claim lines, whereas the Agency only included paid claim lines.
    - AmeriHealth-M noted that it incorrectly submitted header diagnosis codes for professional encounters, leading to the omission of the data element.
    - Community Care Plan-M and Sunshine-C reported that they submitted more secondary diagnosis codes than the Agency submitted. Community Care Plan-M submitted up to 12 diagnosis codes as permitted by the X12 guide, while Sunshine-C submitted up to 25 diagnosis codes, as requested in HSAG's data request. This discrepancy aligned with HSAG's observation that the Agency only captured up to four diagnosis codes.
    - Molina-C and United-C indicated that the values were correctly reported on both their original encounters submitted to FMMIS and the data extract file submitted to HSAG. United-C speculated that the Agency used diagnosis code pointers to assign the diagnosis codes per line.
    - Humana-C and Vivida-M acknowledged that they made errors. Humana-C noted that its system query inadvertently duplicated diagnosis codes for some encounters, while Vivida-M attributed the high omission rate to a reporting error that has since been corrected.
    - Simply-C indicated that it inserted the admitting diagnosis code as the primary diagnosis code, while the Agency removed the admitting diagnosis code. Consequently, Simply-C's *Secondary Diagnosis Code* field contained the primary diagnosis code, resulting in omissions, as the Agency did not have an additional diagnosis code.

- AmeriHealth-M's omission rates for the *Header Paid Amount* and *Detail Paid Amount* data elements both exceeded 99.9 percent. AmeriHealth-M reported that the paid amount values submitted in the data file were also present in the Agency's system.
- Overall, all plans had low surplus rates (i.e., at or lower than 5.0 percent) for all data elements evaluated for professional encounters, except for the *Rendering Provider NPI* data element.
  - Aetna-C's surplus rate for the *Rendering Provider NPI* data element was high at 40.8 percent. Aetna-C indicated in its response that *Rendering Provider NPI* details were not submitted to the Agency on encounters wherein the rendering provider was the same as the billing provider.

Element Accuracy

For data element accuracy, HSAG classified the accuracy rates based on the following:

- High performance: Rates at or higher than 95.0 percent
- Low performance: Rates at or higher than 85.0 percent and lower than 95.0 percent
- Very low performance: Rates lower than 85.0 percent

Table 3-4 displays the number of plans with data element accuracy rates for institutional encounters, based on rates at or higher than 95.0 percent (i.e., high) and lower than 95.0 percent (i.e., low, or very low). **For this indicator, higher rates indicate better performance**. Green-shaded cells in the table indicate the number of plans with better performance, while pink-shaded cells indicate the number of plans with poorer performance. Detailed tables for each plan are provided in the plan-specific appendices.

Table 3-4—Data Element Accuracy: Institutional Encounters

Key Data Element	Number of Plans With Accuracy Rate < 95% (Low/Very Low)	Number of Plans With Accuracy Rate ≥ 95% (High)
Enrollee ID	0	9
Header Service From Date	0	9
Header Service To Date	1	8
Detail Service From Date	2	7
Detail Service To Date	2	7
Admission Date	0	9
Billing Provider NPI	7	2
Attending Provider NPI	0	9
Referring Provider NPI[1]	0	6
Primary Diagnosis Code	1	8
Secondary Diagnosis Code[3]	5	4
Procedure Code (CPT/HCPCS)	0	9
Procedure Code Modifier[4]	1	8

Key Data Element	Number of Plans With Accuracy Rate < 95% (Low/Very Low)	Number of Plans With Accuracy Rate ≥ 95% (High)
Units of Service	8	1
Surgical Procedure Code[5]	3	6
NDC[2]	0	0
Revenue Code	0	9
DRG[1]	5	3
Header Paid Amount	1	8
Detail Paid Amount	1	8

[1] Some plans had no records with values present in both data sources (i.e., the Agency and plans). As such, the data element accuracy could not be evaluated for some of these plans.

[2] No plans had records with values present in both data sources (i.e., the Agency and plans). As such, the data element accuracy could not be evaluated for all plans.

[3] All submitted secondary diagnosis codes were ordered and concatenated as a single data element.

[4] All submitted procedure code modifiers were ordered and concatenated as a single data element.

[5] All submitted surgical procedure codes were ordered and concatenated as a single data element.

Key Findings: Table 3-4

- The accuracy rates for data elements that were evaluated for the institutional encounters were generally high for most plans. Data elements associated with *Header Service To Date*, *Detail Service From Date*, *Detail Service To Date*, *Billing Provider NPI*, *Primary Diagnosis Code*, *Secondary Diagnosis Code*, *Procedure Code Modifier*, *Units of Service*, *Surgical Procedure Code*, *DRG*, *Header Paid Amount*, and *Detail Paid Amount* showed low or very low accuracy rates (below 95.0 percent) for at least one plan.
  - Aetna-C exhibited a low accuracy rate (above 85.0 percent and below 95.0 percent) for the *Header Service To Date* data element at 93.4 percent. Aetna-C noted the line level dates were not matching, and that discrepancies may have stemmed from the Agency using the oldest line level *Service To Date* as the *Header Service To Date*, rather than the date mentioned at header level DTP*434.
  - Community Care Plan-M and United-C exhibited low accuracy rates for the *Detail Service From Date* data element (i.e., 90.5 percent and 92.0 percent, respectively). Community Care Plan-M noted that an error in the logic caused all dates for the service at the line level to default to the header date of service. Similarly, United-C noted that the discrepancy was caused by using the header date of service instead of the detail service date.
  - Community Care Plan-M and United-C also exhibited low accuracy rates for the *Detail Service To Date* data element (i.e., 88.0 percent and 88.2 percent, respectively). Similar to the findings noted above, Community Care Plan-M indicated that a logic error caused all line level dates to default to the header date of service, while United-C noted that the discrepancy was due to the plan using the header date of service instead of the detail service date.
  - Seven plans (i.e., AmeriHealth-M, Humana-C, Molina-C, Simply-C, Sunshine-C, United-C, and Vivida-M) exhibited low or very low accuracy rates for the *Billing Provider NPI* data element

(i.e., 91.1 percent, 93.3 percent, 89.6 percent, 93.0 percent, 91.5 percent, 86.4 percent, and 2.0 percent, respectively). HSAG noted that discrepancies could be attributed to the Agency and the plans using different versions of the PML when submitting the *Billing Provider NPI* values. The plans also provided responses to these discrepancies based on their investigations:

- o Six plans (i.e., AmeriHealth-M, Humana-C, Molina-C, Simply-C, Sunshine-C, and United-C) reported that the submitted *Billing Provider NPI* values matched those submitted to the Agency. AmeriHealth-M noted that the Provider ID in the Agency's PML was tied to more than one NPI, which led to the discrepancies. As such, AmeriHealth should encourage its providers to ensure a one-to-one match between their NPI and Medicaid ID or to thoroughly understand the NPI mapping logic. Simply-C noted that the *Billing Provider NPI*s submitted by the Agency were based on the current PML, while those submitted by Simply-C were based on the PML at the time of submission. It is important to note that the Agency does not utilize the PML when processing encounters; instead, it relies on current data from FMMIS.
- o One plan, Vivida-M, noted that it made a reporting error which caused the discrepancy, and that it has since corrected the error.
- – Simply-C exhibited a low accuracy rate for the *Primary Diagnosis Code* data element at 93.7 percent. Based on the investigation of the discrepancy, Simply-C noted that it inserted the admitting diagnosis code for the *Primary Diagnosis Code* data element, whereas the Agency inserted the principal diagnosis code for this data element.
- – Five plans (i.e., Aetna-C, Community Care Plan-M, Humana-C, Simply-C, and Vivida-M) exhibited very low accuracy rates (below 85.0 percent) for the *Secondary Diagnosis Code* data element (i.e., 7.1 percent, 81.7 percent, 4.1 percent, 3.3 percent, and 11.3 percent, respectively).
- o Aetna-C reported that the *Secondary Diagnosis Code* field was pulled at the claim level, and the same diagnosis codes were sent on each line of the claim, rather than segregating per line level. This resulted in all lines reflecting the entire list of diagnosis codes across each line on Aetna-C's submissions, while the Agency was able to segregate and apply the diagnosis codes per line, causing the discrepancies.
- o Community Care Plan-M's *Secondary Diagnosis Code* data element accuracy rate improved substantially from 56.6 percent to 81.7 percent after HSAG integrated supplementary diagnosis codes submitted by the Agency and recalculated the accuracy rate. Among the mismatched records, the Agency still had fewer secondary diagnosis codes compared to Community Care Plan-M for approximately 89.9 percent of the mismatches.
- o Humana-C indicated that its system query used to pull the secondary diagnosis codes contributed to the inaccuracies. Humana-C also noted that the original encounters submitted to FMMIS were accurate for this data element.
- o Simply-C noted that the plan inserted the admitting diagnosis code for the *Primary Diagnosis Code* data element, whereas the Agency inserted the principal diagnosis code for the *Primary Diagnosis Code* field and omitted the admitting diagnosis code from the *Secondary Diagnosis Code* data element, which led to discrepancies.
- o Vivida-M reported that it did not find any discrepancies, as the *Secondary Diagnosis Code* values matched those that were submitted to the Agency.

– Vivida-M exhibited a low accuracy rate for the *Procedure Code Modifier* data element at 89.4 percent. Based on its investigation, Vivida-M reported that it identified no discrepancies, as the *Procedure Code Modifier* values matched those that were submitted to the Agency.

– All plans except Simply-C exhibited low or very low accuracy rates (below 95.0 percent) for the *Units of Service* data element.

   o Prior to applying the alternative match key, Aetna-C's *Units of Service* accuracy rate was 81.7 percent. Aetna-C attributed the low accuracy to mismatched claim line numbers between the data extract for the EDV study and the encounter submissions. After HSAG applied an alternative match key, the accuracy rate improved substantially to 92.3 percent. HSAG noted that among records with mismatched *Units of Service* values, Aetna-C populated non-zero values while the Agency populated zero values for approximately 64.5 percent of the records.

   o AmeriHealth-M's *Units of Service* accuracy rate improved from 51.1 percent to 56.0 percent after applying the alternative match key. For records with mismatched *Units of Service* values, AmeriHealth-M populated zero values while the Agency populated non-zero values for approximately 97.7 percent of the records, which seemed to be the driving factor of the discrepancy.

   o Community Care Plan-M's accuracy rate for the data element was 0 percent. HSAG noted that all Community Care Plan-M-submitted institutional encounters had invalid values for *Units of Service*, with approximately 98.5 percent of the encounters populated with "UN." Of note, despite HSAG noting the discrepancy to Community Care Plan-M during the file review process, and Community Care Plan-M resubmitting the institutional encounters on January 4, 2024, the *Units of Service* values remained invalid.

   o Sunshine-C reported that the Agency submitted a zero value for *Units of Service* on rejected encounters, whereas Sunshine-C's data showed billed units. Sunshine-C also noted that in some instances, erroneous units were picked up.

   o The accuracy rates for Humana-C, Molina-C, and Vivida-M were at 23.5 percent, 78.5 percent, and 81.6 percent, respectively. All three plans claimed that they correctly submitted the *Units of Service* values on both the original encounter submitted to FMMIS and the HSAG extract and did not identify any issues.

   o Prior to applying the alternative match key, United-C's *Units of Service* accuracy rate was 86.0 percent. United-C acknowledged the low accuracy was due to claim line numbers mismatching between the data extracted for the EDV study and the encounter submissions. After applying the alternative match key, the accuracy rate improved slightly from 86.0 percent to 87.7 percent. HSAG noted that among records with mismatched *Units of Service* values, approximately 38.2 percent were Agency-denied records wherein the Agency populated zero values for *Units of Service*, while United-C populated non-zero values.

– Three plans (i.e., Humana-C, Molina-C, and Simply-C) exhibited low or very low accuracy rates for the *Surgical Procedure Code* data element (i.e., 0.0 percent, 88.6 percent, and 0.0 percent, respectively).

- o Humana-C reported that its system query, used to pull the surgical procedure codes for the HSAG extract file, contributed to the inaccuracies. Humana-C noted that its original encounter submission to FMMIS was accurate for this data element.
- o Molina-C's *Surgical Procedure Code* accuracy rate improved from 77.0 percent to 88.6 percent after HSAG integrated the supplementary surgical codes submitted by the Agency and repeated the comparison. Among the new discrepant records, the Agency-submitted encounters contained more surgical procedure codes than Molina-C submitted encounters.
- o Simply-C noted that it provided all surgical procedure codes except the primary surgical code, which likely led to the discrepancies between the Agency- and Simply-C-submitted encounters.
- – Five plans (i.e., Humana-C, Molina-C, Simply-C, Sunshine-C, and Vivida-M) exhibited very low accuracy rates (below 85.0 percent) for the *DRG* data element (i.e., 46.8 percent, 2.0 percent, 46.6 percent, 0.2 percent, and 0.0 percent, respectively).
  - o HSAG noted that the Agency-submitted *DRG* values consisted of three digits, while those submitted by three plans (Humana-C, Molina-C, and Simply-C) consisted of four digits. In addition, HSAG found substantial alignment between the Agency-submitted *DRG* values and the first three digits of the plan-submitted *DRG* values, suggesting a higher level of agreement than initially perceived. Molina-C confirmed that the plan-submitted *DRG* values were correctly reported on both the original encounters submitted to FMMIS and the HSAG extract. Molina-C also pointed out that the Agency appeared to extract the first three digits of the DRG codes and did not include the level of severity reported with the DRG codes on the outbound encounter.
  - o Two plans (i.e., Sunshine-C and Vivida-M) reported that the discrepancies were due to their errors. Sunshine-C indicated that the discrepancies were due to an incorrect query that selected the last three digits of the DRG values instead of the first three digits, while Vivida-M noted that the discrepancies were due to a reporting error which has since been corrected.
- – Sunshine-C exhibited a low accuracy rate for the *Header Paid Amount* data element at 90.0 percent. Upon investigating the discrepancy, Sunshine-C reported that the *Header Paid Amount* values in the Agency data were net of interest, while the values submitted by Sunshine-C were solely paid amounts.
- – Humana-C exhibited a very low accuracy rate for the *Detail Paid Amount* data element at 81.3 percent. Humana-C attributed the discrepancies to the system query used to pull the *Detail Paid Amount* values for the HSAG extract file, which was contributing to inaccuracies. Humana-C also noted that its original encounter submission to FMMIS was accurate on this data element.

Table 3-5 displays the number of plans with data element accuracy rates for professional encounters, based on rates at or higher than 95.0 percent (i.e., high) and lower than 95.0 percent (i.e., low, or very low). **For this indicator, higher rates indicate better performance**. Green-shaded cells in the table indicate the number of plans with better performance, while pink-shaded cells indicate the number of plans with poorer performance. Fully detailed tables for each plan are provided in the plan-specific appendices.

Table 3-5—Data Element Accuracy: Professional Encounters

Key Data Element	Number of Plans With Accuracy Rate < 95% (Low/Very Low)	Number of Plans With Accuracy Rate ≥ 95% (High)
Enrollee ID	0	9
Header Service From Date	1	8
Header Service To Date	1	8
Detail Service From Date	1	8
Detail Service To Date	1	8
Billing Provider NPI	8	1
Rendering Provider NPI	1	8
Referring Provider NPI	2	7
Primary Diagnosis Code	8	1
Secondary Diagnosis Code[2]	9	0
Procedure Code (CPT/HCPCS)	0	9
Procedure Code Modifier[3]	0	9
Units of Service	9	0
NDC[1]	0	0
Header Paid Amount	5	4
Detail Paid Amount	6	3

[1] No plans had records with values present in both data sources (i.e., the Agency and plans). As such, the data element accuracy could not be evaluated for all plans.

[2] All submitted secondary diagnosis codes were ordered and concatenated as a single data element.

[3] All submitted procedure code modifiers were ordered and concatenated as a single data element.

Key Findings: Table 3-5

- The accuracy rates for data elements evaluated for professional encounters were generally high for most plans. However, certain data elements, including *Header Service From Date*, *Header Service To Date*, *Detail Service From Date*, *Detail Service To Date*, *Billing Provider NPI*, *Rendering Provider NPI*, *Referring Provider NPI*, *Primary Diagnosis Code*, *Secondary Diagnosis Code*, *Units of Service*, *Header Paid Amount*, and *Detail Paid Amount* showed low or very low accuracy rates (below 95.0 percent) for at least one plan.
  - Sunshine-C exhibited low accuracy rates (above 85.0 percent and below 95.0 percent) for the *Header Service From Date* and *Header Service To Date* data elements at 94.8 percent and 93.2 percent, respectively. In its investigation of the discrepancies, Sunshine-C reported that it correctly populated header dates of service. However, the plan noted that the Agency was using the *Header Service To Date* values as the *Header Service From Date* values and using the *Detail Service To Date* values as the *Header Service to Date* values.
  - Community Care Plan-M exhibited low accuracy rates for the *Detail Service From Date* and *Detail Service To Date* data elements, with rates of 91.3 percent and 89.7 percent, respectively.

Upon investigation, Community Care Plan-M attributed the discrepancy to an error in query logic, causing all dates for the service at the line level to default to the maximum date of service among all lines in the claim.

– All plans except Simply-C exhibited low or very low accuracy rates (below 95.0 percent) for the *Billing Provider NPI* data element. HSAG identified potential discrepancies due to the Agency and the plans using different versions of the PML when submitting the *Billing Provider NPI* values. The plans provided responses to the discrepancies based on their investigative efforts.

   o Seven plans (i.e., Aetna-C, AmeriHealth-M, Community Care Plan-M, Humana-C, Molina-C, Sunshine-C, and United-C) reported that the submitted *Billing Provider NPI* values matched those submitted to the Agency. AmeriHealth-M noted discrepancies due to the Provider ID in the Agency's PML being tied to more than one NPI. As such, AmeriHealth should encourage providers to ensure a one-to-one match between their NPI and Medicaid ID or to thoroughly understand the NPI mapping logic.

   o Vivida-M acknowledged discrepancies due to a plan-related reporting error, which has since been rectified.

– Vivida-M exhibited a low accuracy rate (below 85.0 percent) for the *Rendering Provider NPI* data element, with a rate at 76.4 percent. Vivida-M attributed the discrepancies to a reporting error, which has since been corrected.

– Two plans (i.e., Aetna-C and Sunshine-C) exhibited low or very low accuracy rates for the *Referring Provider NPI* data element (i.e., 29.5 percent and 92.1 percent, respectively).

   o Aetna-C reported difficulties accessing the original submitted data from the encounter database when submitting encounters to HSAG. Incorrect referring provider details were pulled from the claims processing system due to the use of standard logic rather than plan-specific logic, leading to discrepancies.

   o Sunshine-C reported that the submitted *Referring Provider NPI* values matched those submitted to the Agency.

– All plans except Sunshine-C exhibited low or very low accuracy rates (below 95.0 percent) for the *Primary Diagnosis Code* data element.

   o Three plans (i.e., Community Care Plan-M, Molina-C, and United-C) noted in their responses that the *Primary Diagnosis Code* values were correctly reported on the original encounter submitted to FMMIS as well as the HSAG extract. United-C also suggested that the Agency might have used diagnosis code pointers to assign the diagnosis codes per line.

   o Three plans (i.e., AmeriHealth-M, Humana-C, and Vivida-M) attributed the discrepancies to their errors. AmeriHealth-M reported incorrectly submitted header diagnosis codes for professional claims. Humana-C mentioned discrepancies due to its system query used to pull primary diagnosis codes, noting that original encounter submissions to FMMIS were accurate for this data element. Vivida-M acknowledged errors in reporting, which has since been corrected.

   o Aetna-C believed the discrepancies were due to claim line number mismatches between the data extracted for the EDV study and encounter submissions, as the plan included both paid and denied claim lines, whereas encounter submissions to the Agency only included paid claim lines.

- o Simply-C noted discrepancies in the insertion of primary diagnosis codes, wherein the plan inserted the primary diagnosis code for the *Primary Diagnosis Code* data element, whereas the agency seemed to insert one of the other secondary diagnosis codes for the *Primary Diagnosis Code* data element.

- – All plans exhibited very low accuracy rates for the *Secondary Diagnosis Code* data element. HSAG noted that the Agency only captured up to four diagnosis codes for professional encounters, while plans captured up to 25 diagnosis codes, which may contribute to the low accuracy rates of the *Secondary Diagnosis Code* data element across all plans. The plans also provided responses to the discrepancies based on their investigations.

  - o Three plans (i.e., AmeriHealth-M, Humana-C, and Vivida-M) noted that the discrepancies were due to their errors. AmeriHealth-M noted that the plan had incorrectly submitted the header level secondary diagnosis codes for professional encounters. Humana-C reported that its system query used to pull the HSAG extract file inadvertently duplicated diagnosis codes for some encounters, which resulted in the discrepancies. Humana-C noted that its original encounter submissions to FMMIS were accurate for this data element. Vivida-M noted that the discrepancies were due to its reporting error, and that the plan has since corrected the error.

  - o Two plans (i.e., Molina-C and United-C) noted in their responses that the *Secondary Diagnosis Code* values were correctly reported on the original encounter submitted to FMMIS as well as the HSAG extract. United-C also noted that the Agency may have used diagnosis code pointers to assign the diagnosis codes per line.

  - o Aetna-C believed the discrepancies were due to claim line number mismatches between the EDV data extract and the encounter submissions, as the plan included both paid and denied claim lines, whereas the encounter submissions to the Agency only included paid claim lines.

  - o Simply-C noted that the plan inserted the admitting diagnosis code for the *Primary Diagnosis Code* data element, whereas the Agency omitted the admitting diagnosis code, which led to the discrepancies.

  - o Community Care Plan-M noted that the plan submitted up to 12 diagnosis codes as permitted by the X12 guide, while Sunshine-C indicated in its response that the plan submitted up to 25 diagnosis codes, as requested in the HSAG data request document.

- – All plans exhibited low or very low accuracy rates for the *Units of Service* data element.

  - o Three plans (Aetna-C, AmeriHealth-M, and United-C) reported that the discrepancies were due to claim line number mismatches between the EDV data extract and the encounter submissions. The mismatch occurred because the EDV data extract included both paid and denied claim lines, whereas the encounter submissions to the Agency only included paid claim lines.

  - o Three plans (i.e., Humana-C, Molina-C, and Vivida-M) noted in their responses that the *Units of Service v*alues were correctly reported on the original encounter submitted to FMMIS as well as the EDV data extract.

  - o Based on the investigation of the discrepant samples, Community Care Plan-M noted that the Agency populated a zero value for *Units of Service* when the Agency denied the line for approximately 60 percent of the samples. For the other 40 percent of the samples,

Community Care Plan-M believed the discrepancies may be attributed to reordering of line numbers during processing.

- o Simply-C noted in its response that the plan reported two types of units in the professional EDV file. The first type was the billed unit, which represented how the provider billed the units; the other type was the paid unit, which showed how Simply-C paid for the units. Simply-C believed that its paid units were compared to the Agency's billed units.
- o Sunshine-C reported that the Agency populated zero values for *Units of Service* for the rejected claims, while Sunshine-C populated billed units as the values. Sunshine-C also noted that there were instances wherein erroneous unit values were picked up.

– Five plans (i.e., Aetna-C, AmeriHealth-M, Molina-C, Sunshine-C, and United-C) exhibited low or very low accuracy rates for the *Header Paid Amount* data element (i.e., 93.6 percent, 2.6 percent, 85.9 percent, 47.8 percent, and 84.6 percent, respectively).

- o Aetna-C noted that the discrepancy mainly occurred on zero pay claims wherein Aetna-C was required to submit a fee-for-service equivalency as the paid amount on the encounters to the Agency, but the encounters were submitted with a zero paid amount to HSAG.
- o Although AmeriHealth-M had a low accuracy rate for this data element, it was insignificant since nearly all *Header Paid Amount* values were absent from the Agency-submitted data.
- o Molina-C noted in its response that the discrepancy was limited to the capitated provider claims with a downstream paid amount, indicated by the Contract Type indicator "05." For those claims, Molina-C reported a zero value as the *Header Paid Amount* on the EDV data extract rather than including the downstream paid amount, which was reported in the outbound encounter submission to the Agency.
- o Similar to Molina-C, United-C also claimed that the Agency data populated non-zero values for the *Header Paid Amount* field for capitated claims, while United-C excluded the capitated dollars when it submitted the encounters to HSAG.
- o Sunshine-C reported that the *Header Paid Amount* values in the Agency data were net amounts, including interest, while the values submitted by Sunshine-C were just paid amounts.

– Six plans (i.e., Aetna-C, AmeriHealth-M, Humana-C, Molina-C, Sunshine-C, and United-C) exhibited low or very low accuracy rates for the *Detail Paid Amount* data element (i.e., 93.8 percent, 9.2 percent, 50.4 percent, 86.4 percent, 92.1 percent, and 90.8 percent, respectively).

- o Prior to applying the alternative match key, Aetna-C's *Detail Paid Amount* accuracy rate was 82.4 percent. Aetna-C acknowledged that the low accuracy was due to claim line number mismatches between the EDV data extract and the encounter submissions. The *Detail Paid Amount* accuracy rate improved substantially from 82.4 percent to 93.8 percent after applying the alternative match key. HSAG noted that among records with mismatched *Detail Amount Paid* values, Aetna-C populated zero values for *Detail Paid Amount*, while the Agency populated non-zero values for approximately 94.7 percent of the records.
- o AmeriHealth-M's accuracy rate for the *Detail Paid Amount* data element was low at 9.2 percent. However, the low accuracy rate for the data element was insignificant since nearly all *Detail Paid Amount* values were absent from the Agency-submitted data.

- o Humana-C indicated that the system query used to pull the *Detail Paid Amount* values contributed to the inaccuracies. Humana-C also noted that the original encounters submitted to FMMIS were accurate on this data element.
- o Sunshine-C reported that the *Detail Paid Amount* values in the Agency data were net amounts, including interest, while the values submitted by Sunshine-C were just paid amounts.
- o Molina-C noted in its response that the discrepancy was limited to the capitated provider claims with a downstream paid amount, indicated by the Contract Type indicator "05." For those encounters, Molina-C reported a zero value for *Detail Paid Amount* on the EDV data extract rather than including the downstream paid amount, which was reported in the outbound encounter submission to the Agency.
- o Before applying the alternative match key, United-C's *Detail Paid Amount* accuracy rate was 86.1 percent. United-C acknowledged that the low accuracy rate was due to claim line number mismatches between the EDV data extract and the encounter submissions. The *Detail Paid Amount* accuracy rate improved from 86.1 percent to 90.8 percent after HSAG applied the alternative match key. HSAG noted that among records with mismatched *Detail Amount Paid* values, United-C populated zero values for *Detail Paid Amount*, while the Agency populated non-zero values for approximately 99.6 percent of the records.

All-Element Accuracy

Table 3-6 displays the all-element accuracy results for the percentage of records present in both data sources and with the same values (missing or non-missing) for all key data elements relevant to each encounter type. Green-shaded cells in the table indicate the number of plans with better performance, while pink-shaded cells indicate the number of plans with poorer performance.

Table 3-6—All-Element Accuracy

Encounter Type	Number of Plans With All-Element Accuracy Rate < 95% (Low/Very Low)	Number of Plans With All-Element Accuracy Rate >= 95% (High)
Institutional	9	0
Professional	9	0

Key Findings: Table 3-6

- All plans' all-element accuracy rates for institutional encounters were below 95 percent. The most notable reason was that most plans had low or very low accuracy rates for *Units of Service* and *Billing Provider NPI* data elements.
- All plans' all-element accuracy rates for professional encounters were below 95 percent, due to the accuracy rates of the *Secondary Diagnosis Code* and *Units of Service* data elements for all plans falling below 95 percent.

Background

Medical and clinical records are considered the "gold standard" for documenting Medicaid enrollees' access to and quality of services. The file review and comparative analysis components of the study seek to determine the completeness and accuracy of the Agency's encounter data and how comparable these data are to the plans' data from which they are based, respectively. The MRR further assesses data quality through investigating the completeness and accuracy of the Agency's encounters compared to the information documented in the corresponding medical records of Medicaid enrollees.

HSAG reviewed and compared enrollees' information between data sources (the Agency's encounters and provider submitted medical records) using a unique combination of the enrollees' Medicaid IDs and the NPIs of the rendering provider for specific dates of service.

Medical Record Procurement Status

Table 4-1 shows the medical record procurement status for each of the participating plans, detailing the number of medical records requested as well as the number and percentage of medical records submitted by each plan as indicated in the submitted tracking sheets.

Table 4-1—Record Submission

Plan	Number of Records Requested	Number of Records Submitted[1]	Percentage of Records Submitted
AET-C	263	246	93.5%
AMH-M	263	227	86.3%
CCP-M	263	232	88.2%
HUM-C	263	260	98.9%
MOL-C	263	222	84.4%
SIM-C	263	251	95.4%
SUN-C	263	161	61.2%
UNI-C	263	188	71.5%
All Plans	**2,104**	**1,787**	**84.9%**

[1] The number of records submitted was based on the plans' responses within the submitted tracking sheets.

Key Findings: Table 4-1

- HSAG requested records to be procured by all participating plans for a total of 2,104 cases (i.e., sample and oversample). All plans completed and submitted tracking sheets associated with the requested

cases; however, plans indicated in their tracking sheets that 84.9 percent of requested records were submitted. This submission rate varied considerably, ranging from 61.2 percent (Sunshine-C) to 98.9 percent (Humana-C).

- Medical records for a date of service that were not submitted would count as a medical record omission for all data elements (i.e., *Date of Service, Diagnosis Code, Procedure Code,* and *Procedure Code Modifier*) associated with that date of service. Therefore, plans with relatively low medical record submission rates would be expected to have higher medical record omission rates (i.e., poorer performance) for key data elements.

Table 4-2 highlights the key reasons medical record documentation was not submitted by each plan. Detailed tables for each plan are provided in the plan-specific appendices.

Table 4-2—Reasons for Missing Records

Non-Submission Reason	All Plans	
	Number	**Percent**
Non-responsive provider or provider did not respond in a timely manner.	203	64.0%
Medical record not located at this practice.	62	19.6%
Enrollee is not a patient of this practice.	19	6.0%
Enrollee is a patient of this practice; however, no documentation available for the date of service (DOS).	12	3.8%
Practice is permanently closed.	11	3.5%
Other.	10	3.2%
Totals*	**317**	**100%**

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

Key Findings: Table 4-2

- Of the requested 2,104 cases, 317 records were not submitted for various reasons. The most commonly cited reason for non-submission was *"Non-responsive provider or provider did not respond in a timely manner,"* accounting for 64.0 percent of the unsubmitted cases. United-C reported the greatest number of unsubmitted records with this reason (66 records). This was also the most common non-submission reason for all plans except Simply-C and Sunshine-C. For Sunshine-C, the most common non-submission reason was *"Medical record not located at this practice,"* while for Simply-C, *"Other"* was the most common non-submission reason.
  - Other commonly cited reasons included *"Medical record not located at this practice"* (19.6 percent) and *"Enrollee is not a patient of this practice"* (6.0 percent). Among the plans citing *"Medical record not located at this practice,"* Sunshine-C reported this reason for 49 out of 62 total records.
  - Plans cited *"Other"* as a reason for 10 records, with Simply-C reporting nine of these records. The most cited *"Other"* reason was that multiple requests were made for record procurement,

but the records were not received. This should align with the reason, *"Non-responsive provider or provider did not respond in a timely manner,"* although it is currently listed under *"Other."*

Table 4-3 displays the number and percentage of cases with one additional date of service selected and submitted for the study.

Table 4-3—Second Date of Service

Plan	Records With Second Date of Service	
	Number	**Percent**
AET-C	51	20.7%
AMH-M	143	63.0%
CCP-M	83	35.8%
HUM-C	158	60.8%
MOL-C	140	63.1%
SIM-C	167	66.5%
SUN-C	74	46.0%
UNI-C	8	4.3%
All Plans	**824**	**46.1%**

Key Findings: Table 4-3

- Among the 1,787 records submitted to HSAG, 824 records (46.1 percent) were submitted with a second date of service. This rate varied substantially between plans, ranging from 4.3 percent (United-C) to 66.5 percent (Simply-C). A 100 percent submission rate for a second date of service is not expected, as an enrollee may not have had a second date of service within the review period. However, for United-C enrollees whose records were not submitted with a second date of service, approximately 58 percent had a second date of service in the encounter data.

Encounter Data Completeness

HSAG evaluated encounter data completeness by identifying differences between key data elements from the Agency-based encounters and the corresponding enrollees' medical records. 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 the providers, plans, and the Agency.

A medical record omission occurred when an encounter data element (i.e., *Date of Service*, *Diagnosis Code*, *Procedure Code*, and *Procedure Code Modifier*) was not supported by documentation in an enrollee's medical record or the medical record could not be found. 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*, and *Procedure Code Modifier*) was documented in an enrollee's medical record but is not present in the associated electronic encounter data. Encounter data omissions suggest opportunities for improvement in the areas of claims submissions and/or processing routes among the providers, plans, and the Agency.

HSAG evaluated the medical record omission and the encounter data omission rates for each plan using dates of service selected by HSAG, and an additional date of service selected by the provider if one was available. If more than one additional date of service was available from the medical record, the provider was instructed to select the one closest to HSAG's selected date of service. **For both rates, lower values indicate better performance**.

Date of Service Completeness

Table 4-4 displays the percentage of dates of service identified in the encounter data that were not supported by the enrollees' medical records (i.e., medical record omission) and the percentage of dates of service from the enrollees' medical records that were not found in the encounter data (i.e., encounter data omission). HSAG conducted the analyses at the date-of-service level. Detailed tables for each plan are provided in the plan-specific appendices.

Table 4-4—Record Omission for Date of Service

Plan	Medical Record Omission		Encounter Data Omission	
	Number of Dates of Service Identified in the Encounter Data	Percent Not Supported by Enrollees' Records*	Number of Dates of Service Identified in Enrollees' Records	Percent Not Found in the Encounter Data*
AET-C	291	5.2%	291	5.2%
AMH-M	289	0.0%	300	3.7%
CCP-M	299	0.0%	302	1.0%
HUM-C	278	1.1%	303	9.2%
MOL-C	280	1.1%	304	8.9%
SIM-C	277	0.7%	300	8.3%
SUN-C	299	28.1%	228	5.7%
UNI-C	283	29.0%	207	2.9%
All Plans	**2,296**	**8.2%**	**2,235**	**5.7%**

*Lower rates indicate better performance.

Key Findings: Table 4-4

- Overall, 8.2 percent of dates of service within the Agency's encounter data were not supported by enrollee medical records (i.e., medical record omission), with plan rates ranging from 0.0 percent (AmeriHealth-M and Community Care Plan-M) to 29.0 percent (United-C).
  - United-C and Sunshine-C had the highest medical record omission rates compared to other plans. These plans also had the lowest medical record procurement rates as illustrated in Table 4-1. These trends were consistent, as a lower medical record submission rate generally corresponded to a higher medical record omission rate (i.e., poor performance).
- Overall, 5.7 percent of the dates of service in medical records were not found in the Agency's encounter data (i.e., encounter data omission), with plan rates ranging from 1.0 percent (Community Care Plan-M) to 9.2 percent (Humana-C).

Diagnosis Code Completeness

Table 4-5 displays the percentage of diagnosis codes identified in the encounter data that had no supporting documentation in the enrollees' medical records (i.e., medical record omission) and the percentage of diagnosis codes from the enrollees' medical records that were not found in the encounter data (i.e., encounter data omission). HSAG conducted the analysis at the diagnosis-code level.

Table 4-5—Record Omission and Encounter Data Omission for Diagnosis Code

Plan	Medical Record Omission		Encounter Data Omission	
	Number of Diagnosis Codes Identified in Encounter Data	Percent Not Supported by Enrollees' Records*	Number of Diagnosis Codes Identified in Enrollees' Records	Percent Not Found in the Encounter Data*
AET-C	771	7.7%	738	3.5%
AMH-M	727	2.3%	728	2.5%
CCP-M	845	3.2%	826	1.0%
HUM-C	730	3.4%	738	4.5%
MOL-C	700	2.4%	716	4.6%
SIM-C	770	2.6%	779	3.7%
SUN-C	790	28.1%	596	4.7%
UNI-C	752	32.3%	539	5.6%
All Plans	**6,085**	**10.4%**	**5,660**	**3.6%**

* Lower rates indicate better performance.

Key Findings: Table 4-5

- Overall, 10.4 percent of the diagnosis codes in the encounter data had no supporting documentation in the enrollees' medical records (i.e., medical record omission), with plan rates ranging from 2.3 percent (AmeriHealth-M) to 32.3 percent (United-C).
  - 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. In the analysis, 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. Therefore, plans with lower medical record submission rates had higher medical record omission rates for diagnosis codes, especially Sunshine-C and United-C. Additionally, plans with higher medical record omission rates for dates of service also tended to have higher medical record omission rates for diagnosis codes. Among records wherein diagnosis codes were considered medical record omissions, approximately 75.7 percent were due to HSAG not receiving medical records or the medical records not supporting the sampled date of service.
- For medical record omission, the top three diagnosis codes included in the encounter data but not supported in the enrollees' medical records included:
  - Z00.129: Encounter for routine child health examination without abnormal findings; Frequency = 34
  - Z23: Encounter for immunization; Frequency = 30
  - Z68.52: Body mass index [BMI] pediatric, 5th percentile to less than 85th percentile for age; Frequency = 23
- Overall, 3.6 percent of the diagnosis codes identified in medical records were not found in the encounter data (i.e., encounter data omission), with rates ranging from 1.0 percent (Community Care Plan-M) to 5.6 percent (United-C).
  - The overall encounter data omission rate for the *Diagnosis Code* data element (3.6 percent) was lower than the overall encounter data omission rate for the *Date of Service* data element (5.7 percent), indicating that the omission of dates of service from the encounter data may not be the primary factor contributing to diagnosis code encounter data omission. Other potential contributing factors include coding errors from provider billing offices or differences related to Agency-specific billing and reimbursement guidelines.

Procedure Code Completeness

Table 4-6 displays the percentage of procedure codes from the enrollees' medical records that had no supporting documentation in the enrollees' medical records (i.e., medical record omission) and the percentage of procedure codes from the enrollees' medical records that were not found in the encounter data (i.e., encounter data omission). HSAG conducted the analysis at the procedure code level.

Table 4-6—Record Omission and Encounter Data Omission for Procedure Code

Plan	Medical Record Omission		Encounter Data Omission	
	Number of Procedure Codes Identified in Encounter Data	**Percent Not Supported by Enrollees' Records***	**Number of Procedure Codes Identified in Enrollees' Records**	**Percent Not Found in the Encounter Data***
AET-C	600	8.8%	651	16.0%
AMH-M	514	7.8%	529	10.4%
CCP-M	782	8.3%	753	4.8%
HUM-C	499	7.6%	526	12.4%
MOL-C	531	6.0%	563	11.4%
SIM-C	450	4.0%	541	20.1%
SUN-C	625	33.3%	462	9.7%
UNI-C	527	31.7%	478	24.7%
All Plans	**4,528**	**13.7%**	**4,503**	**13.2%**

* Lower rates indicate better performance.

Key Findings: Table 4-6

- Overall, 13.7 percent of the procedure codes identified in the encounter data were not supported by the enrollees' medical records (i.e., medical record omission), with rates ranging from 4.0 percent (Simply-C) to 33.3 percent (Sunshine-C).
    - In the analysis, when no medical records were submitted for the sampled date of service, all procedure codes associated with that date service were treated as medical record omissions.
    - Among records wherein procedure codes were considered medical record omissions, approximately 56.0 percent were due to HSAG not receiving medical records or the medical records not supporting the sampled date of service.
    - For medical record omission, procedure codes that were frequently omitted from enrollees' medical records included:
        o 99213: Established patient office visit, 20–29 minutes; Frequency = 57
        o 90461: Immunization administration through 18 years via any route of administration, each additional vaccine; Frequency = 51
        o 99214: Established patient office visit, 30–39 minutes; Frequency = 40
        o 90460: Immunization administration through 18 years via any route of administration, with counseling by physician; Frequency = 35
        o 36415: Collection of venous blood by venipuncture; Frequency = 19
- Overall, 13.2 percent of the procedure codes identified in medical records were not found in the encounter data (i.e., encounter data omission), with rates ranging from 4.8 percent (Community Care Plan-C) to 24.7 percent (United-C).

– For encounter data omission, the following procedure codes accounted for 43.1 percent of omitted procedure codes from enrollees' medical records:

   o 90461: Immunization administration through 18 years via any route of administration, each additional vaccine; Frequency = 79

   o 90472: Immunization administration, each additional vaccine; Frequency = 59

   o 99213: Established patient office visit, 20–29 minutes; Frequency = 45

   o 90651: Human papillomavirus (HPV) 9-valent vaccine administration; Frequency = 41

   o 99214: Established patient office visit, 30–39 minutes; Frequency = 33

Procedure Code Modifier Completeness

Table 4-7 displays the percentage of procedure code modifiers identified in the encounter data that had no supporting documentation in the enrollees' medical records (i.e., medical record omission) and the percentage of procedure code modifiers from the enrollees' medical records that were not found in the encounter data (i.e., encounter data omission). HSAG conducted the analysis at the procedure code modifier level.

Table 4-7—Record Omission and Encounter Data Omission for Procedure Code Modifier

Plan	Medical Record Omission		Encounter Data Omission	
	Number of Procedure Code Modifiers Identified in Encounter Data	Percent Not Supported by Enrollees' Records*	Number of Procedure Code Modifiers Identified in Enrollees' Records	Percent Not Found in the Encounter Data*
AET-C	262	14.9%	224	0.4%
AMH-M	207	24.6%	160	2.5%
CCP-M	168	25.0%	133	5.3%
HUM-C	176	23.3%	139	2.9%
MOL-C	164	22.0%	140	8.6%
SIM-C	159	17.6%	137	4.4%
SUN-C	194	47.4%	104	1.9%
UNI-C	195	36.9%	123	0.0%
All Plans	**1,525**	**26.3%**	**1,160**	**3.1%**

* Lower rates indicate better performance.

Key Findings: Table 4-7

- Overall, 26.3 percent of the procedure code modifiers identified in the encounter data were not supported by the enrollees' medical records (i.e., medical record omission), with rates ranging from 14.9 percent (Aetna-C) to 47.4 percent (Sunshine-C).

- – The statewide medical record omission rate for the procedure code modifiers could have been attributed to several factors, including:
  - o Medical record non-submission, wherein subsequent procedure codes and procedure code modifiers were treated as medical record omissions.
  - o Omitted procedure codes, wherein associated procedure code modifiers were also omitted.
  - o Providers not documenting evidence related to the modifiers in the medical records despite submitting the modifiers to the plans.
- – The plans with the lowest medical procurement rates (Sunshine-C and United-C) also had the highest medical omission rates for procedure code modifiers.
- – The most common procedure code modifier found in the encounter data but not documented in enrollees' medical records was "25" (significant, separately identifiable evaluation and management [E&M] service by the same provider on the same day of the procedure or other service), which accounted for 54.4 percent of omissions.
- Overall, 3.1 percent of the procedure code modifiers identified in medical records were not supported in the encounter data (i.e., encounter data omission), with rates ranging from 0.0 percent (United-C) to 8.6 percent (Molina-C).
  - – Potential contributors to the procedure code modifier encounter data omissions included:
    - o Dates of service omitted from the encounter data, resulting in all procedure code modifiers associated with those dates of service being treated as encounter data omissions.
    - o Procedure codes were omitted from the encounter data, causing all associated procedure code modifiers to be treated as encounter data omissions.
    - o Provider coding errors or failure to submit the procedure code modifiers to the Agency despite providing the specific services.
  - – The most common procedure code modifier identified in enrollees' medical records but missing from the encounter data was "95" (synchronous telemedicine service rendered via a real-time interactive audio and video telecommunications system), which accounted for 58.3 percent of omissions.

Encounter Data Accuracy

Encounter data accuracy was evaluated for dates of service that existed in both the Agency's 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 records supported the values contained in the electronic encounter data. Higher accuracy rates for each data element indicate better performance.

Diagnosis Code Accuracy

Table 4-8 displays the percentage of diagnosis codes associated with validated dates of service from the encounter data that were correctly coded based on enrollees' medical records. In addition, errors found in the diagnosis coding were separated into two categories: inaccurate coding and specificity errors. An 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 the Agency's 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 diagnosis coding and specificity errors in the medical records were collectively considered as the denominator for the error type rates in Table 4-8. Detailed tables for each plan are provided in the plan-specific appendices.

Table 4-8—Accuracy Results and Error Types for Diagnosis Code

Plan	Accuracy Results		Inaccuracy Reasons
	Number of Diagnosis Codes Present in Both Sources	Accuracy Rate	
AET-C	712	99.2%	Inaccurate Code: 100%
AMH-M	710	99.6%	Inaccurate Code: 100%
CCP-M	818	99.8%	Inaccurate Code: 100%
HUM-C	705	99.9%	Specificity Error: 100%
MOL-C	683	98.8%	Inaccurate Code: 87.5% Specificity Error: 12.5%
SIM-C	750	99.5%	Inaccurate Code: 100%
SUN-C	568	99.5%	Inaccurate Code: 100%
UNI-C	509	99.4%	Inaccurate Code: 100%
All Plans	**5,455**	**99.5%**	**Inaccurate Code: 93.3% Specificity Error: 6.7%**

Key Findings: Table 4-8

- The overall accuracy rate for diagnosis codes, when present in both the Agency's encounter data and the medical records, was 99.5 percent, with each plan having similarly high accuracy rates (i.e., over 98.0 percent). This rate was calculated based on codes present in both the Agency's encounter data and medical records.

- Regarding diagnosis coding accuracy, 93.3 percent of the errors were attributed to discrepancies between submitted codes and the National Correct Coding Initiative (NCCI) coding standards rather than discrepancies associated with specificity errors.

Procedure Code Accuracy

Table 4-9 displays the percentage of procedure codes associated with validated dates of service from the encounter data that were correctly coded based on enrollees' medical records.

- 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. For example, a patient was seen by a physician for a follow-up appointment for a worsening earache. 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). With all key elements documented and 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.

Inaccurate coding, codes with higher levels of service, and codes with lower levels of service in medical records were collectively considered as the denominator for the error type rates in Table 4-9. Detailed tables for each plan are provided in the plan-specific appendices.

Table 4-9—Accuracy Results and Error Types for Procedure Code

Plan	Number of Procedure Codes Present in Both Sources	Accuracy Rate	Inaccuracy Reasons
	Accuracy Results		
AET-C	547	98.4%	Inaccurate Code: 88.9% Lower Level of Service in Medical Record: 11.1%
AMH-M	474	99.8%	Lower Level of Service in Medical Record: 100%
CCP-M	717	97.6%	Inaccurate Code: 100%
HUM-C	461	97.0%	Inaccurate Code: 92.9% Lower Level of Service in Medical Record: 7.1%
MOL-C	499	98.2%	Inaccurate Code: 100%
SIM-C	432	98.4%	Inaccurate Code: 100%
SUN-C	417	98.1%	Inaccurate Code: 100%
UNI-C	360	94.4%	Inaccurate Code: 100%
All Plans	**3,907**	**97.8%**	**Inaccurate Code: 96.5%** **Lower Level of Service in Medical Record: 3.5%**

Key Findings: Table 4-9

- Overall, 97.8 percent of the procedure codes were accurate when they were present in both the encounter data and the medical records, with each plan having rates of at least 94.4 percent.

- Regarding procedure coding accuracy, 96.5 percent of the errors were attributed to the use of inaccurate codes, while 3.5 percent of errors were associated with providers submitting codes for a higher level of service than was documented in enrollees' medical records (i.e., the procedure code was considered an error due to a lower level of service having been documented in the medical record).

Procedure Code Modifier Accuracy

Table 4-10 displays the percentage of procedure code modifiers associated with validated dates of service from the encounter data that were correctly coded based on enrollees' medical records. The errors for this data element could not be separated into subcategories and therefore are not presented in Table 4-10. Example errors for this data element include instances where 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 system) was present, but the documentation did not support telemedicine services.

Table 4-10—Accuracy Results and Error Types for Procedure Code Modifier

Plan	Number of Procedure Code Modifiers Present in Both Sources	Accuracy Rate
AET-C	223	100%
AMH-M	156	100%
CCP-M	126	100%
HUM-C	135	100%
MOL-C	128	100%
SIM-C	131	100%
SUN-C	102	100%
UNI-C	123	100%
All Plans	**1,124**	**100%**

Key Findings: Table 4-10

- Overall, 100 percent of the procedure modifier codes were accurate when they were present in both the encounter data and the medical records. Each individual plan had an accuracy rate of 100 percent as well.

All-Element Accuracy

Table 4-11 displays the percentage of dates of service present in both the Agency's encounter data and in the medical records with the same values for all key data elements listed in Table A-2. 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 the Agency's encounter data when compared to the medical records.

It is important to note that the denominator for the element accuracy rate for each data element was defined differently than 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. 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 categories of accurate and inaccurate. However, for the all-element accuracy rate, the denominator is the total number of dates of service that matched between the medical records and 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 are 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 4-11—All-Element Accuracy

Plan	Number of Dates of Service Present in Both Sources	Accuracy Rate
AET-C	276	72.8%
AMH-M	289	75.1%
CCP-M	299	64.2%
HUM-C	275	74.5%
MOL-C	277	73.3%
SIM-C	275	72.7%
SUN-C	215	71.6%
UNI-C	201	62.7%
All Plans	**2,107**	**71.1%**

Key Findings: Table 4-11

- Overall, 71.1 percent of the dates of service present in both data sources contained accurate values for all three key data elements (i.e., *Diagnosis Code, Procedure Code,* and *Procedure Code Modifier*). Rates ranged from 62.7 percent (United-C) to 75.1 percent (AmeriHealth-M). The inaccuracies were attributed to medical record omission, encounter data omission, or inaccurate codes when present in both sources, associated with one or more of the key data elements. The *Procedure Code* data element contributed the most to inaccuracies, followed by *Procedure Code Modifier* and *Diagnosis Code.*

Methodology

The goal of the SFY 2023–2024 EDV study is to examine the extent to which the encounters submitted to the Agency by its contracted MMA comprehensive plans and MMA plans (collectively referred to as plans) are complete and accurate.

In alignment with the CMS EQR *Protocol 5. Validation of Encounter Data Reported by the Medicaid and CHIP Managed Care Plan: An Optional EQR-Related Activity*, February 2023 (CMS EQR Protocol 5),[A-2] HSAG conducted the following core evaluation activities for the EDV activity:

- Comparative Analysis—Analysis of the Agency's electronic encounter data completeness and accuracy through a comparison between the Agency's electronic encounter data and the data extracted from the plans' data systems.
- Medical Record Review (MRR)—Analysis of the Agency's electronic encounter data completeness and accuracy through a comparison of the Agency's electronic encounter data to the information documented in the corresponding enrollees' medical records.

Comparative Analysis

The goal of the comparative analysis is to evaluate the extent to which encounters submitted to the Agency by the plans are complete and accurate based on corresponding information stored in the plans' data systems. This activity corresponds to *Activity 3: Analyze Electronic Encounter Data* in the CMS EQR Protocol 5. HSAG used data from both the Agency and the plans with dates of service from January 1, 2022, through December 31, 2022, to evaluate the accuracy and completeness of the encounter data. The encounter data are considered complete if the data provide a record of all services rendered to the enrollees, and all data in the plan's data set have been successfully transferred into the state's data system. For encounter data to be considered accurate, the data that the plans maintain represent actual services rendered; when they were rendered (the service date); to whom they were rendered (the enrollee); by whom they were rendered (the provider); and if a payment was rendered in connection to the service, how much was paid. Plans should also successfully map this information between themselves and the state to ensure that the data stored in the state's system match the data stored in the plan's system. The study included two encounter types (i.e., institutional and professional) submitted by both MMA and comprehensive plans for enrollees eligible for only MMA services.

[A-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 23, 2024.

The comparative analysis component involved three key steps:

- Development of data submission requirements documents outlining encounter data submission requirements for the Agency and the plans, including technical assistance sessions.
- Conduct a preliminary file review of submitted encounter data from the Agency and the plans.
- Conduct a comparative analysis of the encounter data.

Development of Data Submission Requirements and Technical Assistance

Following the Agency's approval of the scope of work, HSAG prepared and submitted data submission requirements documents to the Agency and the plans. These documents included a brief description of the SFY 2023–2024 EDV study, a description of the review period, requested encounter data type(s), required data fields, and the procedures for submitting the requested data files to HSAG. The requested encounter data fields included key data elements to be evaluated in the EDV study. The Agency and the plans were requested to submit all encounter data records with dates of service from January 1, 2022, through December 31, 2022, and submitted to the Agency on or before August 31, 2023. This anchor date allowed enough time for calendar year 2022 encounters to be submitted, processed, and available for evaluation in the Agency's data warehouse.

HSAG conducted a technical assistance session with the plans to facilitate the accurate and timely submission of data. The technical assistance session was conducted approximately one week after distributing the data submission requirements document, thereby allowing the plans time to review and prepare their questions for the session. During this technical assistance session, HSAG's EDV team introduced the SFY 2023–2024 EDV study, reviewed the data submission requirements document, and addressed all questions related to data preparation and extraction. Both the Agency and the plans had approximately one month to extract and prepare the requested files for submission to HSAG.

Preliminary File Review

Following receipt of the Agency's and the plans' encounter data submissions, HSAG conducted a preliminary file review to determine if any data issues existed in the data files that would warrant a resubmission. The preliminary file review included the following checks:

- Data extraction—Extracted based on the data requirements document.
- Percent present—Required data fields are present on the file and have values in those fields.
- Percent of valid values—The values are the expected values, e.g., valid ICD-10-CM codes in the diagnosis field.
- Evaluation of matching claim numbers—The percentage of claim numbers matching between the data extracted from the Agency's data warehouse and the plans' data submitted to HSAG.

Based on the results of the preliminary file review, HSAG generated the Agency and plan-specific file review reports, highlighting any major discrepancies, anomalies, or issues identified in the encounter data submissions. The plans or the Agency were subsequently required to resubmit data, if necessary.

Conduct the Comparative Analyses

Once final data from the Agency and the plans were received and processed, HSAG conducted a series of analyses. To facilitate the presentation of findings, the comparative analyses were divided into two analytic sections.

First, HSAG assessed record-level data completeness using the following metrics for each encounter type:

- The number and percentage of records present in the files submitted by the plans that were not found in the files submitted by the Agency (*record omission*).
- The number and percentage of records present in the files submitted by the Agency but not found in the files submitted by the plans (*record surplus*).

Second, based on the number of records present in both data sources, HSAG further examined completeness and accuracy for key data elements listed in Table A-1. The analyses focused on an element-level comparison for each data element.

Table A-1—Key Data Elements for Comparative Analysis

Key Data Elements	Institutional	Professional
Enrollee ID	√	√
Header Service From Date	√	√
Header Service To Date	√	√
Detail Service From Date	√	√
Detail Service To Date	√	√
Admission Date	√	
Discharge Date	√	
Billing Provider NPI	√	√
Attending Provider NPI	√	
Rendering Provider NPI		√
Referring Provider NPI	√	√
Primary Diagnosis Code	√	√
Secondary Diagnosis Code	√	√
Procedure Code (CPT/HCPCS)	√	√
Procedure Code Modifier	√	√
Units of Service	√	√
Primary Surgical Procedure Code	√	
NDC	√	√
Revenue Code	√	
DRG	√	

Key Data Elements	Institutional	Professional
Header Paid Amount	√	√
Detail Paid Amount	√	√

For matching records between the Agency and the plans, HSAG evaluated element-level completeness focusing on the following metrics:

- The number and percentage of records with values present in the files submitted by the plans but not present in the files submitted by the Agency (*element omission*).
- The number and percentage of records with values present in the files submitted by the Agency but not present in the files submitted by the plans (*element surplus*).
- The number and percentage of records with values missing from both the Agency's and the plans' submitted files (*element missing values*).

Element-level accuracy was limited to those records with values present in both the Agency's and the plans' submitted files. For a particular data element, HSAG determined:

- The number and percentage of records with the same values in both the Agency's and the plans' submitted files (*element accuracy*).
- The number and percentage of records present in both data sources with the same values for select data elements relevant to each encounter data type (***all-element accuracy***).

Technical Assistance

As a follow-up to the comparative analysis activity, HSAG provided technical assistance to the plans regarding the issues identified from the comparative analysis. First, HSAG drafted plan-specific encounter data discrepancy reports highlighting key areas for investigation. Second, upon the Agency's review and approval, HSAG distributed the data discrepancy reports to the plans, along with data samples to assist the plans with their internal investigations. Based on their internal investigations, plans were required to identify potential root cause(s) of the key issues and provide written responses to the data discrepancy reports. Lastly, once HSAG reviewed the written responses, it followed up with the plans, for any further clarification, if appropriate.

Medical Record Review

As outlined in the CMS EQR Protocol 5, MRR is a complex and resource-intensive process. Medical and clinical records are considered the "gold standard" for documenting Medicaid enrollees' access to and quality of services. The second component of the EDV study assessed data quality through investigating the completeness and accuracy of the Agency's encounters compared to the information documented in the corresponding medical records of Medicaid enrollees.

The review of medical records included physician services rendered from January 1, 2022, through December 31, 2022. The MRR component of the study answered the following question:

- *Are the data elements in Table A-2 found on the professional encounters complete and accurate when compared to information contained within the medical records?*

Table A-2—Key Data Elements for MRR

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

To answer the study questions, HSAG conducted the following steps:

- Identified the eligible population and generated samples from data submitted by the Agency for the study.
- Provided technical assistance to the plans to support the procurement of medical records from their providers, as appropriate.
- Reviewed medical records against the Agency's encounter data.
- Calculated study indicators based on the reviewed/abstracted data.
- Drafted the report based on study results.

Study Population

To be eligible for the MRR, an enrollee had to be continuously enrolled in the same plan during the study period (i.e., from January 1, 2022, through December 31, 2022), and had to have at least one physician visit during the same period. For plans that did not have enrollees enrolled with the same plan continuously during the study period, HSAG adjusted the continuous enrollment accordingly. In addition, enrollees with Medicare or other insurance coverage were excluded from the eligible population since the Agency does not have complete encounter data for all services they received. In this study, HSAG refers to "physician visits" as the services that met all criteria in Table A-3. In addition, after reviewing the encounter data from the Agency's data warehouse, HSAG discussed additional changes to these criteria with the Agency, as needed.

Table A-3—Criteria for Physician Visits Included in the Study

Data Element	Criteria
Claim Type	Claim Type Code = M (i.e., medical/clinical)
Provider Type	Provider types shall include but are not limited to: 25—Physician (M.D.) 26—Physician (D.O.) 27—Podiatrist

Data Element	Criteria
	29—Physician Assistant 30—Nurse Practitioner–Advanced Registered Nurse Practitioner (ARNP) 31—Registered Nurse/Registered Nurse First Assistant 34—Licensed Midwife 36—Medical Assistant 66—Rural Health Clinic (RHC) 68—Federally Qualified Health Center (FQHC)
Place of Service	02—Telehealth 11—Office 20—Urgent Care Facility 49—Independent Clinic 50—FQHC 71—Public Health Clinic 72—RHC
Procedure Code	If all detail lines for a visit have one of the following procedure codes, the visit was excluded from the study since these procedure codes are for services outside 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," "D," "K," or "V" • Procedure codes including A0021 through A0999 (i.e., codes for transportation services) • Procedure codes including A4206 through A9999 (i.e., codes for medical and surgical supplies, miscellaneous, and investigational) • Procedure codes including T4521 through T4544 (i.e., codes for incontinence supplies) • Procedure codes including L0112 through L4631 (i.e., codes for orthotic devices and procedures) • Procedure codes including L5000 through L9900 (i.e., codes for prosthetic devices and procedures) • Procedure codes with an "F" in the fifth digit
Trading Partner Identifier (TPID)	TPIDs as provided by the Agency

Sampling Strategy

Encounter data, enrollment and demographic data, and provider data from the Agency used in the comparative analyses were used to select the MRR samples. HSAG used a two-stage sampling technique to select samples based on the data received from the Agency. HSAG first identified all enrollees who met the study population eligibility criteria. HSAG then randomly selected the enrollees by plan based on the required sample size. Then, for each selected sample enrollee, HSAG used the SURVEYSELECT

procedure in SAS®[A-3] to randomly select one physician visit[A-4] that occurred in the study period (i.e., January 1, 2022, through December 31, 2022). Additionally, to evaluate whether any of the dates of service were omitted from the Agency's data, HSAG reviewed a second date of service rendered by the same provider during the review period. The providers selected the second date of service that was closest to the selected date of service from the medical records for each sampled enrollee. If a sampled enrollee had no additional visits with the same provider during the review period, HSAG evaluated only one date of service for that enrollee.

Medical Record Procurement

Upon receiving the final sample list from HSAG, plans were responsible for procuring the sampled enrollees' medical records from their contracted providers for services that occurred during the study period. In addition, plans were responsible for submitting the documentation to HSAG. To improve the procurement rate, HSAG conducted a one-hour technical assistance session with the plans to review the EDV project and the procurement protocols after distributing the sample list. Plans were instructed to submit the medical records electronically via HSAG's Secure Access File Exchange (SAFE) site to ensure the protection of personal health information (PHI). During the procurement process, HSAG worked with the plans to answer questions and monitor the number of medical records submitted. For example, HSAG provided an initial submission update when 40 percent of the documentation was expected to be submitted and a final submission status update followed completion of the procurement period.

All electronic medical records that HSAG received were maintained on a secure HSAG 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 had implemented 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

To successfully complete the study, the project lead worked with the case review team (CRT) beginning with the methodology phase. The CRT is involved in the tool design and testing phases to ensure that the abstracted data are complete and accurate. Based on the study methodology, clinical guidelines, and the tool design/testing results, the CRT drafted an abstraction instruction training document specific to the study. Concurrent with record procurement activities, the CRT trained its review staff on specific study protocols and conducted interrater reliability (IRR) and rater-to-standard testing. All reviewers were required to achieve a 95 percent accuracy rate prior to reviewing medical records and collecting data for the study. IRR among reviewers and reviewer accuracy were evaluated regularly throughout the study.

[A-3] SAS and all other SAS Institute Inc. product or service names are registered trademarks or trademarks of SAS Institute Inc. in the USA and other countries. ® indicates USA registration.

[A-4] 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 were consolidated into one visit for sampling.

Issues and decisions raised during this evaluation process were documented in the abstraction instruction training document and communicated to all reviewers in a timely manner.

During the MRR activity, HSAG's trained reviewers collected and documented findings in an HSAG-designed electronic data collection tool. The tool was designed with edits to assist in the accuracy of data collection. The validation included a review of specific data elements identified in sample cases and compared to corresponding documentation in the medical record.

HSAG's trained reviewers first verified whether the sampled date of service from the Agency encounter data could be found in the enrollee's medical record. If so, the reviewers documented the date of service as valid; if not, the reviewers reported the date of service as a *medical record omission*. The reviewers then reviewed the services provided on the selected date of service and validated the data elements listed in Table A-2. Reviewers entered all findings into the electronic tool to ensure data integrity.

After the reviewers evaluated the sampled date of service, they determined if the medical record contains documentation for a second date of service in the study period. If the documentation for a second date of service was available, the reviewer evaluated the services rendered on this date and validated the data elements in Table A-2 associated with the second date of service. If the documentation contained more than one second date of service, the reviewer selected the date closest to the sampled date of service to validate. If the second date of service was missing from the Agency data warehouse, it was reported as an *encounter data omission*. The missing values associated with this visit were listed as an omission for each key data element, respectively.

MRR Study Indicators and Findings

Once the record review was completed, HSAG analysts exported the information collected from the electronic tool, reviewed the data, and conducted the analysis. Table A-4 displays the study indicators used to report the MRR results.

Table A-4—Criteria for Physician Visits Included in the Study

Study Indicator	Denominator	Numerator
Medical Record Procurement Rate: Percentage of medical records submitted. Additionally, the reasons for missing medical records were presented.	Total number of requested sample cases.	Number of requested sample cases with medical records submitted for either the sampled date of service 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.
Medical Record Omission Rate: Percentage of data elements (e.g., *Date of Service*) identified in the	Total number of data elements (e.g., *Date of Service*) identified in the Agency's data warehouse (i.e.,	Number of data elements (e.g., *Date of Service*) in the

Study Indicator	Denominator	Numerator
Agency's data warehouse that are not found in the enrollees' medical records. HSAG calculated the study indicator for each data element listed in Table A-2.	based on the sample dates of service and the second dates of service that are found in the Agency's data warehouse).	denominator but not found in the medical records.
Encounter Data Omission Rate: Percentage of data elements (e.g., *Date of Service*) identified in enrollees' medical records but not found in the Agency's data warehouse. HSAG calculated the study indicator for each data element listed in Table A-2.	Total number of data elements (e.g., *Date of Service*) identified in enrollees' 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 the Agency's data warehouse.
Diagnosis Code Accuracy: Percentage of diagnosis codes supported by the medical records. Additionally, the frequency counts of associated reasons for inaccuracy were presented.	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 the Agency's encounter data and the medical records. • Diagnosis codes present for both the Agency's encounter data and the medical records.	Number of diagnosis codes supported by the medical records.
Procedure Code Accuracy: Percentage of procedure codes supported by the medical records. Additionally, the frequency counts of associated reasons for inaccuracy were presented.	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 the Agency's encounter data and the medical records. • Procedure codes present for both the Agency's 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.	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	Number of procedure code modifiers supported by the medical records.

Study Indicator	Denominator	Numerator
	of service) that exist in both the Agency's' encounter data and the medical records. • Procedure code modifiers present for both the Agency's encounter data and the medical records.	
All-Element Accuracy Rate: Percentage of dates of service present in both the Agency's encounter data and the medical records, with the same values for all data elements listed in Table A-2.	Total number of dates of service (i.e., including both the sample dates of service and second dates of service) that are in both the Agency's 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.

Study Limitations

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

- The comparative analysis results presented in this study are dependent on the quality of the encounter data submitted by the Agency and the plans. Any substantial and systematic errors in the extraction and transmission of the encounter data may bias the results and compromise the validity and reliability of the study findings.

- The primary focus of the comparative analysis component of the EDV study is to assess the extent and magnitude of record and data element discrepancies between the Agency- and plan-submitted encounter data. When possible, HSAG conducted supplemental analyses into the characteristics of the omitted/surplus records when discrepancies were identified. However, these secondary investigations were limited and should be used for information only.

- The findings from the comparative analysis and MRR were associated with encounters from January 1, 2022, through December 31, 2022. As such, the results may not reflect the current quality of the Agency's encounter data and changes implemented after the study began.

- For the MRR, accurate evaluation of the completeness and accuracy of the Agency's encounter data depends on the plans' ability to procure enrollees' complete and accurate medical records. Therefore, validation results may have been affected by a 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 enrollees' medical records; therefore, results are dependent on the overall quality of physicians' medical records. For example, a physician may have performed a service but not documented it in the enrollee's medical

record. As such, HSAG would have counted this oversight 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 MRR findings from this study are associated with physician visits and may not be applicable to other claim types.

This appendix contains results and findings for Aetna Better Health of Florida, Inc. (Aetna-C/AET-C).

Comparative Analysis Results

This section presents Aetna-C's results for the comparative analysis. Based on study findings from the comparative analysis component, HSAG initiated follow-up activities designed to assist the plans in addressing the major encounter data issues identified from this study. First, HSAG distributed the data discrepancy reports to each plan, which included a description of key issues for the plans to review. Additionally, samples of encounters highlighting identified issues were also distributed to further assist the plans in reviewing the results.

Second, the plans were required to submit written responses on any required resolutions or follow-up items identified and noted in the discrepancy reports. These next sections present the comparative analysis results as reported in the data discrepancy report for Aetna-C. Additionally, the images of Aetna-C's responses based on its investigative efforts on the example discrepant records are provided later in this appendix.

During the comparative analysis, HSAG found that the detail line numbers between the Agency- and Aetna-C-submitted encounters did not appear to align accordingly within the same claim for both professional and institutional encounters. The misalignment led to lower accuracy rates of several key elements (e.g., *Procedure Code (CPT/HCPCS)*, *Units of Service*, *Revenue Code*, *Detail Paid Amount*). To address this issue, HSAG developed an alternative match key that did not include the detail line number, allowing for a more accurate comparison between the Agency- and plan-submitted data. Additionally, to ensure a thorough assessment of the completeness and accuracy of diagnoses and surgical procedure codes, the Agency provided HSAG with supplementary diagnosis and surgical procedure codes for the institutional encounters. HSAG incorporated these supplementary data and reassessed the encounter data completeness and accuracy using the alternative match key.

Record Completeness

There are two aspects of record completeness—record omission and record surplus. A record omission occurs when a record is present in the plan's submitted data files for the study but not in the Agency's data files. Similarly, a record surplus occurs when a record is present in the Agency's data files but not in the plan's submitted data files. The Agency encounter data are considered relatively complete when the record omission and record surplus rates are low.

Table B-1 displays the percentage of records present in the Aetna-C-submitted files that were not found in the Agency-submitted files (record omission) and the percentage of records present in the Agency-submitted files but not present in the Aetna-C-submitted files (record surplus) for the institutional and

professional encounters. **Lower rates indicate better performance for both record omission and record surplus**. Rates considered as better performance are shaded green; worse rates are shaded pink.

Table B-1—Record Omission and Surplus

Encounter Type	Omission (Missing in the Agency's Files)	Surplus (Missing in AET-C's Files)
Institutional Encounters	59.7%	2.9%
Professional Encounters	22.6%	3.6%

Key Findings: Table B-1

- The record omission rate for institutional encounters remained at 59.7 percent, with a record surplus rate of 2.9 percent after reassessment.

- The record omission rate for professional encounters was 22.6 percent, with a record surplus rate of 3.6 percent after reassessment.

Data Element Completeness and Accuracy

Institutional Encounters

Table B-2 displays Aetna-C's data element omission, surplus, absent, and accuracy rates for the institutional encounters. Lower rates indicate better performance for element omission and surplus indicators. For the element absent indicator, lower or higher rates do not indicate better or worse performance. Higher rates indicate better performance for element accuracy. Rates considered as better performance are shaded green; worse rates are shaded pink.

Table B-2—Data Element Completeness and Accuracy for Institutional Encounters

Key Data Elements	Element Omission	Element Surplus	Element Absent	Element Accuracy
Enrollee ID	0.0%	0.0%	0.0%	>99.9%
Header Service From Date	0.0%	0.0%	0.0%	99.6%
Header Service To Date	0.0%	0.0%	0.0%	93.4%
Detail Service From Date	0.0%	0.0%	0.0%	98.5%
Detail Service To Date	0.0%	0.0%	0.0%	98.5%
Admission Date	4.1%	0.0%	88.3%	>99.9%
Billing Provider NPI	0.0%	0.2%	0.0%	96.1%
Attending Provider NPI	1.5%	<0.1%	<0.1%	98.0%
Referring Provider NPI	1.7%	0.0%	98.3%	NA[1]
Primary Diagnosis Code	<0.1%	0.0%	0.0%	99.8%
Secondary Diagnosis Code[2]	17.8%	0.0%	0.5%	7.1%

Key Data Elements	Element Omission	Element Surplus	Element Absent	Element Accuracy
Procedure Code (CPT/HCPCS)	0.0%	0.0%	17.5%	100%
Procedure Code Modifier[3]	0.6%	<0.1%	78.1%	99.4%
Units of Service	0.0%	0.0%	0.0%	92.3%
Surgical Procedure Code[4]	0.0%	0.0%	96.6%	98.2%
NDC	11.2%	0.0%	88.8%	NA[1]
Revenue Code	0.0%	0.0%	0.0%	100%
DRG	0.2%	0.1%	95.0%	97.5%
Header Paid Amount	0.0%	0.0%	0.0%	99.9%
Detail Paid Amount	0.0%	0.0%	0.0%	99.5%

[1] NA indicates not applicable since no records had values present in both data sources to assess accuracy.
[2] All submitted secondary diagnosis codes were ordered and concatenated as a single data element.
[3] All submitted procedure code modifiers were ordered and concatenated as a single data element.
[4] All submitted surgical procedure codes were ordered and concatenated as a single data element.

Key Findings: Table B-2

- After reassessment, the data element omission and surplus rates were generally low (i.e., at or lower than 5.0 percent) for most evaluated institutional encounter data elements, except for the *Secondary Diagnosis Code* and *NDC* data elements.
    - The omission rate for the *Secondary Diagnosis Code* data element was high at 17.8 percent.
    - The omission rate for the *NDC* data element was high at 11.2 percent, and further investigation revealed that the Agency-submitted encounters did not have any *NDC* values populated.
- After reassessment, the accuracy rates for most evaluated institutional encounter data elements were high (i.e., at or above 95.0 percent), except for the *Header Service To Date*, *Secondary Diagnosis Code*, and *Units of Service* data elements.
    - The accuracy rate for the *Header Service To Date* data element was low at 93.4 percent.
    - The accuracy rate for the *Secondary Diagnosis Code* data element was very low at 7.1 percent.
    - The accuracy rate for the *Units of Service* data element improved from 81.7 percent to 92.3 percent.

Professional Encounters

Table B-3 displays Aetna-C's data element omission, surplus, absent, and accuracy rates for the professional encounters. Lower rates indicate better performance for element omission and surplus indicators. For the element absent indicator, lower or higher rates do not indicate better or worse performance. Higher rates indicate better performance for element accuracy. Rates considered as better performance are shaded green; worse rates are shaded pink.

Table B-3-Data Element Completeness and Accuracy for Professional Encounters

Key Data Elements	Element Omission	Element Surplus	Element Absent	Element Accuracy
Enrollee ID	0.0%	0.0%	0.0%	>99.9%
Header Service From Date	0.0%	0.0%	0.0%	99.8%
Header Service To Date	0.0%	0.0%	0.0%	99.7%
Detail Service From Date	0.0%	0.0%	0.0%	99.7%
Detail Service To Date	0.0%	0.0%	0.0%	99.7%
Billing Provider NPI	0.0%	0.0%	0.0%	92.9%
Rendering Provider NPI	0.0%	40.8%	0.0%	97.0%
Referring Provider NPI	59.0%	3.6%	36.9%	29.5%
Primary Diagnosis Code	<0.1%	0.0%	0.0%	87.4%
Secondary Diagnosis Code[2]	16.9%	<0.1%	34.4%	70.7%
Procedure Code (CPT/HCPCS)	0.0%	0.0%	0.0%	100%
Procedure Code Modifier[3]	0.3%	0.3%	62.1%	99.6%
Units of Service	0.0%	0.0%	0.0%	93.0%
NDC	2.9%	0.0%	97.1%	NA[1]
Header Paid Amount	0.1%	0.0%	0.0%	93.6%
Detail Paid Amount	0.1%	0.0%	0.0%	93.8%

[1] NA indicates not applicable since no records had values present in both data sources to assess accuracy.
[2] All submitted secondary diagnosis codes were ordered and concatenated as a single data element.
[3] All submitted procedure code modifiers were ordered and concatenated as a single data element.

Key Findings: Table B-3

- After reassessment, the data element omission and surplus rates were generally low (i.e., at or lower than 5.0 percent) for most evaluated professional encounter data elements, except for the *Rendering Provider NPI*, *Referring Provider NPI*, and *Secondary Diagnosis Code* data elements.
  – The surplus rate for the *Rendering Provider NPI* data element was high at 40.8 percent.
  – The omission rate for the *Referring Provider NPI* data element was high at 59.0 percent.
  – The omission rate for the *Secondary Diagnosis Code* data element was high at 16.9 percent.

- After reassessment, the accuracy rates were high for some of the evaluated professional encounter data elements (i.e., at or above 95.0 percent), except for *Billing Provider NPI*, *Referring Provider NPI*, *Primary Diagnosis Code*, *Secondary Diagnosis Code*, *Units of Service*, *Header Paid Amount*, and *Detail Paid Amount* data elements.
  - The accuracy rate for the *Billing Provider NPI* data element was low at 92.9 percent.
  - The accuracy rate for the *Referring Provider NPI* data element was very low at 29.5 percent.
  - The accuracy rate for the *Primary Diagnosis Code* data element was low at 87.4 percent.
  - The accuracy rate for the *Secondary Diagnosis Code* data element was low at 70.7 percent.
  - The accuracy rate for the *Units of Service* data element improved from 89.5 percent to 93.0 percent.
  - The accuracy rate for the *Header Paid Amount* data element was low at 93.6 percent.
  - The accuracy rate for the *Detail Paid Amount* data element improved from 82.4 percent to 93.8 percent.

The image below presents Aetna's-C's investigative efforts and explanations from the data discrepancy report.

Table	Discrepancy Item	AET-C's Investigation Efforts and Explanations
Table 1	Institutional encounter record omission rate (59.7 percent)	This discrepancy is due to Denied lines being included in the HSAG audit data. We suppress Denied lines in our Paid encounter submission to the state. This is the major reason for discrepancies between the two sets of data.

Table	Discrepancy Item	AET-C's Investigation Efforts and Explanations
Table 1	Professional encounter record omission rate (21.6 percent)	This discrepancy is due to Denied lines being included in the HSAG audit data. We suppress Denied lines in our Paid encounter submission to the state. This is the major reason for discrepancies between the two sets of data.
Table 2	*Header Service To Date* accuracy rate (93.4 percent) for institutional encounter data	Although the date we submitted for audit matches with the 837's Header Service To Date in DTP*834, finding that the line level dates are not showing the same date. Looks like the state is considering the oldest date on Line Level Service To Date as the Header Service To Date, rather than the date mentioned at header level DTP*434
Table 2	*Detail Service From Date* and *Detail Service To Date* accuracy rates (at 90.0 percent each) for institutional encounter data	This discrepancy is due to Claim Line Numbers mismatching between the HSAG audit data and the encounter submissions. The mismatch is occurring because the HSAG audit data included both paid and denied claim lines whereas the encounter submissions to the State only include paid claim lines. Currently our Encounters Reporting Database does not enable us to pull the claim line level data (such as claim line number, DX codes, Surgery codes, hcpc/cp/ndc codes, line paid amount etc). Due to this, we are pulling these details from our claims processing system. In this scenario the claim line number in the claims processing system does not always match with the claim line number submitted to the state on the encounter because the encounters omit denied lines. We are working on including claim line level data in our encounters reporting database going forward to eliminate these discrepancies in the future.
Table 2	*Secondary Diagnosis Code* omission rate (17.7 percent) and accuracy rate (6.0 percent) for institutional encounter data	Primary/Principal Diagnosis code is being sent as DX1, while the remaining diagnosis codes are sent as diag2-diag25 across all the lines on HSAG submissions. This data is pulled at claim level and the same data is sent on each and every line of the claim, rather than segregating per line level. Hence all lines of the claim reflect the same/entire list of DX codes across each line on AET-C's submissions, while State is having the ability to segregate/apply them per line although the 837 file mentions these DX codes at header level rather than line level.

Table	Discrepancy Item	AET-C's Investigation Efforts and Explanations
Table 2	*Procedure Code (CPT/HCPCS)* surplus rate (5.3 percent) and accuracy rate (61.1 percent) for institutional encounters	This discrepancy is due to Claim Line Numbers mismatching between the HSAG audit data and the encounter submissions. The mismatch is occurring because the HSAG audit data included both paid and denied claim lines whereas the encounter submissions to the State only include paid claim lines. Currently our Encounters Reporting Database does not enable us to pull the claim line level data (such as claim line number, DX codes, Surgery codes, hcpc/cp/ndc codes, line paid amount etc). Due to this, we are pulling these details from our claims processing system. In this scenario the claim line number in the claims processing system does not always match with the claim line number submitted to the state on the encounter because the encounters omit denied lines. We are working on including claim line level data in our encounters reporting database going forward to eliminate these discrepancies in the future.
Table 2	*Procedure Code Modifier* surplus rate (10.3 percent) and accuracy rate (87.3 percent) for institutional encounters	This discrepancy is due to Claim Line Numbers mismatching between the HSAG audit data and the encounter submissions. The mismatch is occurring because the HSAG audit data included both paid and denied claim lines whereas the encounter submissions to the State only include paid claim lines. Currently our Encounters Reporting Database does not enable us to pull the claim line level data (such as claim line number, DX codes, Surgery codes, hcpc/cp/ndc codes, line paid amount etc). Due to this, we are pulling these details from our claims processing system. In this scenario the claim line number in the claims processing system does not always match with the claim line number submitted to the state on the encounter because the encounters omit denied lines. We are working on including claim line level data in our encounters reporting database going forward to eliminate these discrepancies in the future.

Table	Discrepancy Item	AET-C's Investigation Efforts and Explanations
Table 2	*Units of Service* accuracy rate (81.7 percent) for institutional encounter data	This discrepancy is due to Claim Line Numbers mismatching between the HSAG audit data and the encounter submissions. The mismatch is occurring because the HSAG audit data included both paid and denied claim lines whereas the encounter submissions to the State only include paid claim lines. Currently our Encounters Reporting Database does not enable us to pull the claim line level data (such as claim line number, DX codes, Surgery codes, hcpc/cp/ndc codes, line paid amount etc). Due to this, we are pulling these details from our claims processing system. In this scenario the claim line number in the claims processing system does not always match with the claim line number submitted to the state on the encounter because the encounters omit denied lines. We are working on including claim line level data in our encounters reporting database going forward to eliminate these discrepancies in the future.
Table 2	*Surgical Procedure Code* accuracy rate (82.2 percent) for institutional encounter data	This discrepancy is due to Claim Line Numbers mismatching between the HSAG audit data and the encounter submissions. The mismatch is occurring because the HSAG audit data included both paid and denied claim lines whereas the encounter submissions to the State only include paid claim lines. Currently our Encounters Reporting Database does not enable us to pull the claim line level data (such as claim line number, DX codes, Surgery codes, hcpc/cp/ndc codes, line paid amount etc). Due to this, we are pulling these details from our claims processing system. In this scenario the claim line number in the claims processing system does not always match with the claim line number submitted to the state on the encounter because the encounters omit denied lines. We are working on including claim line level data in our encounters reporting database going forward to eliminate these discrepancies in the future.

Table	Discrepancy Item	AET-C's Investigation Efforts and Explanations
Table 2	*NDC* omission rate (11.4 percent) for institutional encounter data	This discrepancy is due to Claim Line Numbers mismatching between the HSAG audit data and the encounter submissions. The mismatch is occurring because the HSAG audit data included both paid and denied claim lines whereas the encounter submissions to the State only include paid claim lines. Currently our Encounters Reporting Database does not enable us to pull the claim line level data (such as claim line number, DX codes, Surgery codes, hcpc/cp/ndc codes, line paid amount etc). Due to this, we are pulling these details from our claims processing system. In this scenario the claim line number in the claims processing system does not always match with the claim line number submitted to the state on the encounter because the encounters omit denied lines. We are working on including claim line level data in our encounters reporting database going forward to eliminate these discrepancies in the future.
Table 2	*Revenue Code* accuracy rate (66.8 percent) for institutional encounter data	This discrepancy is due to Claim Line Numbers mismatching between the HSAG audit data and the encounter submissions. The mismatch is occurring because the HSAG audit data included both paid and denied claim lines whereas the encounter submissions to the State only include paid claim lines. Currently our Encounters Reporting Database does not enable us to pull the claim line level data (such as claim line number, DX codes, Surgery codes, hcpc/cp/ndc codes, line paid amount etc). Due to this, we are pulling these details from our claims processing system. In this scenario the claim line number in the claims processing system does not always match with the claim line number submitted to the state on the encounter because the encounters omit denied lines. We are working on including claim line level data in our encounters reporting database going forward to eliminate these discrepancies in the future.

Table	Discrepancy Item	AET-C's Investigation Efforts and Explanations
Table 2	*Detail Paid Amount* accuracy rate (74.2 percent) for institutional encounter data	This discrepancy is due to Claim Line Numbers mismatching between the HSAG audit data and the encounter submissions. The mismatch is occurring because the HSAG audit data included both paid and denied claim lines whereas the encounter submissions to the State only include paid claim lines. Currently our Encounters Reporting Database does not enable us to pull the claim line level data (such as claim line number, DX codes, Surgery codes, hcpc/cp/ndc codes, line paid amount etc). Due to this, we are pulling these details from our claims processing system. In this scenario the claim line number in the claims processing system does not always match with the claim line number submitted to the state on the encounter because the encounters omit denied lines. We are working on including claim line level data in our encounters reporting database going forward to eliminate these discrepancies in the future.
Table 5	*Billing Provider NPI* accuracy rate (93.1 percent) for professional encounter data	The billing provider NPI we submitted for the HSAG Audit does match with the billing provider NPI we are submitting to the state on the 837 files so we are not sure why there was a discrepancy with the State data submitted for the audit.
Table 5	*Rendering Provider NPI* surplus rate (41.6 percent) for professional encounter data	Rendering Provider details are not submitted to the state on these encounters, hence audit records did not contain this detail. In sync with the existing business rule that Rendering Provider details are not submitted on the encounters where it is the same as the Billing Provider. All the encounters in list fall into this scenario.
Table 5	*Referring Provider NPI* omission rate (58.2 percent) and accuracy rate (29.5 percent) for professional encounter data	Due to the inability of accessing originally submitted data from the encounter database, we are linking to the claims processing tables for these details, in this pursuit incorrect referring provider details are pulled from the claims processing system due to the usage of standard logic rather than the plan specific logic.

Table	Discrepancy Item	AET-C's Investigation Efforts and Explanations
Table 5	*Primary Diagnosis Code* accuracy rate (86.1 percent) for professional encounter data	This discrepancy is due to Claim Line Numbers mismatching between the HSAG audit data and the encounter submissions. The mismatch is occurring because the HSAG audit data included both paid and denied claim lines whereas the encounter submissions to the State only include paid claim lines. Currently our Encounters Reporting Database does not enable us to pull the claim line level data (such as claim line number, DX codes, Surgery codes, hcpc/cp/ndc codes, line paid amount etc). Due to this, we are pulling these details from our claims processing system. In this scenario the claim line number in the claims processing system does not always match with the claim line number submitted to the state on the encounter because the encounters omit denied lines. We are working on including claim line level data in our encounters reporting database going forward to eliminate these discrepancies in the future.
Table 5	*Secondary Diagnosis Code* omission rate (16.7 percent) and accuracy rate (70.7 percent) for professional encounter data	This discrepancy is due to Claim Line Numbers mismatching between the HSAG audit data and the encounter submissions. The mismatch is occurring because the HSAG audit data included both paid and denied claim lines whereas the encounter submissions to the State only include paid claim lines. Currently our Encounters Reporting Database does not enable us to pull the claim line level data (such as claim line number, DX codes, Surgery codes, hcpc/cp/ndc codes, line paid amount etc). Due to this, we are pulling these details from our claims processing system. In this scenario the claim line number in the claims processing system does not always match with the claim line number submitted to the state on the encounter because the encounters omit denied lines. We are working on including claim line level data in our encounters reporting database going forward to eliminate these discrepancies in the future.

Table	Discrepancy Item	AET-C's Investigation Efforts and Explanations
Table 5	*Procedure Code (CPT/HCPCS)* accuracy rate (83.6 percent) for professional encounter data	This discrepancy is due to Claim Line Numbers mismatching between the HSAG audit data and the encounter submissions. The mismatch is occurring because the HSAG audit data included both paid and denied claim lines whereas the encounter submissions to the State only include paid claim lines. Currently our Encounters Reporting Database does not enable us to pull the claim line level data (such as claim line number, DX codes, Surgery codes, hcpc/cp/ndc codes, line paid amount etc). Due to this, we are pulling these details from our claims processing system. In this scenario the claim line number in the claims processing system does not always match with the claim line number submitted to the state on the encounter because the encounters omit denied lines. We are working on including claim line level data in our encounters reporting database going forward to eliminate these discrepancies in the future.
Table 5	*Units of Service* accuracy rate (89.5 percent) for professional encounter data	This discrepancy is due to Claim Line Numbers mismatching between the HSAG audit data and the encounter submissions. The mismatch is occurring because the HSAG audit data included both paid and denied claim lines whereas the encounter submissions to the State only include paid claim lines. Currently our Encounters Reporting Database does not enable us to pull the claim line level data (such as claim line number, DX codes, Surgery codes, hcpc/cp/ndc codes, line paid amount etc). Due to this, we are pulling these details from our claims processing system. In this scenario the claim line number in the claims processing system does not always match with the claim line number submitted to the state on the encounter because the encounters omit denied lines. We are working on including claim line level data in our encounters reporting database going forward to eliminate these discrepancies in the future.
Table 5	*Header Paid Amount* accuracy rate (93.6 percent) for professional encounter data	Currently our Encounters Reporting Database does not enable us to pull the claim line level data (such as claim line number, DX codes, Surgery codes, hcpc/cp/ndc codes, line paid amount etc). Due to this, we are pulling these details from our claims processing system. The discrepancy is mainly occurring on zero pay claims where we are required to submit a fee for service equivalency as the paid amount on the encounter but the claims were submitted with 0 amount on the HSAG data.

Table	Discrepancy Item	AET-C's Investigation Efforts and Explanations
Table 5	*Detail Paid Amount* accuracy rate (82.4 percent) for professional encounter data	This discrepancy is due to Claim Line Numbers mismatching between the HSAG audit data and the encounter submissions. The mismatch is occurring because the HSAG audit data included both paid and denied claim lines whereas the encounter submissions to the State only include paid claim lines. Currently our Encounters Reporting Database does not enable us to pull the claim line level data (such as claim line number, DX codes, Surgery codes, hcpc/cp/ndc codes, line paid amount etc). Due to this, we are pulling these details from our claims processing system. In this scenario the claim line number in the claims processing system does not always match with the claim line number submitted to the state on the encounter because the encounters omit denied lines. We are working on including claim line level data in our encounters reporting database going forward to eliminate these discrepancies in the future.

Medical Record Review Results

Medical Record Procurement Status

Table B-4 shows the medical record submission status for Aetna-C, detailing the number of medical records requested as well as the number and percentage of medical records submitted by Aetna-C as indicated in its submitted tracking sheets.

Table B-4—Medical Record Procurement Status for Aetna-C

Plan	Number of Records Requested	Number of Records Submitted		Records Submitted With Second Date of Service	
		Number	Percent	Number	Percent
AET-C	263	246	93.5%	51	20.7%
All Plans	**2,104**	**1,787**	**84.9%**	**824**	**46.1%**

Table B-5 highlights the key reasons Aetna-C did not submit medical records.

Table B-5—Reasons for Missing Medical Records for Aetna-C

Non-Submission Reason	Count	Percent
Non-responsive provider or provider did not respond in a timely manner.	9	52.9%
Enrollee is not a patient of this practice.	6	35.3%
Practice is permanently closed.	1	5.9%

Non-Submission Reason	Count	Percent
Enrollee is a patient of this practice; however, no documentation available for DOS.	1	5.9%
Total	**17**	**100%**

Encounter Data Completeness

Table B-6 displays the record omission and encounter data omission rates for each key data element for Aetna-C. Using the *Diagnosis Code* data element as an example, the list below shows the specifications for the denominator and numerator:

- Medical record omission rate: The denominator for the medical record omission rate is the number of diagnosis codes identified in the Agency's electronic encounter data, and the numerator is the number of diagnosis codes identified in the Agency's electronic encounter data that were not found (i.e., not supported) in the enrollees' medical records.

  In the analysis, when no medical records were submitted for a sampled date of service, all other key data elements associated with that date of service were treated as medical record omissions.

- Encounter data omission rate: The denominator for the encounter data omission rate is the number of diagnosis codes identified in the enrollees' medical records, and the numerator is the number of diagnosis codes from the enrollees' medical records that were not found in the Agency's electronic encounter data.

Table B-6—Encounter Data Completeness Summary for Aetna-C

Data Element	Medical Record Omission*			Encounter Data Omission*		
	Denominator	Numerator	Rate	Denominator	Numerator	Rate
Date of Service	291	15	5.2%	291	15	5.2%
Diagnosis Code	771	59	7.7%	738	26	3.5%
Procedure Code	600	53	8.8%	651	104	16.0%
Procedure Code Modifier	262	39	14.9%	224	1	0.4%

* Lower rates indicate better performance.

Encounter Data Accuracy

Table B-7 displays the element accuracy rates for each key data element and the all-element accuracy rate for Aetna-C. Encounter data accuracy was evaluated for dates of service that existed in both the Agency's encounter data and the submitted medical records, with values present in both data sources for the evaluated data element. Using the *Diagnosis Code* data element as an example, the list below shows the specifications for the denominator and the numerator:

- Denominator: The denominator for the accuracy rate is the number of diagnosis codes associated with dates of service that existed in both the Agency's electronic encounter data and the enrollees' medical records. In addition, both data sources had values for the *Diagnosis Code* data element.
- Numerator: The numerator for the accuracy rate is the number of diagnosis codes in the denominator that were correctly coded based on the enrollees' medical records submitted for the study.

Table B-7—Encounter Data Accuracy Summary for Aetna-C

Data Element	Denominator	Numerator	Rate	Error Type Percentages
Diagnosis Code	712	706	99.2%	Inaccurate Code: 100%
Procedure Code	547	538	98.4%	Inaccurate Code: 88.9% Lower Level of Service in Medical Record: 11.1%
Procedure Code Modifier	223	223	100%	—
All-Element Accuracy	276	201	72.8%	—

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

Conclusions

Based on results from the comparative analysis and MRR, HSAG identified the areas of strength and opportunities for improvement. Along with each opportunity for improvement, HSAG has also provided a recommendation to help target improvement efforts.

Table B-8 highlights Aetna-C's strengths, weaknesses, and recommendations, as applicable, that were identified from the EDV study. The green highlighted rows represent descriptions associated with the comparative analysis, while the non-highlighted rows pertain to the MRR descriptions.

Strengths and Weaknesses

Table B-8—Strengths and Weaknesses for Aetna-C

Strength/ Weakness	Description
➕	**Strength:** For both sets of encounters, a high level of element completeness (i.e., low element omission and surplus rates) was generally exhibited among encounters that could be matched between the Agency-submitted encounters and Aetna-C-submitted encounters.
➕	**Strength:** Encounter data omission rates were generally low for *Date of Service*, *Diagnosis Code*, and *Procedure Code Modifier* data elements, ranging from 0.4 percent (*Procedure Code Modifier*) to 5.2 percent (*Date of Service*). Medical record omission rates were moderately low for *Date of Service*, *Diagnosis Code*, and *Procedure Code* data elements, ranging from 5.2 percent (*Date of Service*) to 8.8 percent (*Procedure Code*). These findings indicate that the encounter data were supported by the medical records, allowing for confident future analyses. Additionally, they suggest that providers are accurately documenting and submitting encounters to Aetna-C.

Strength/ Weakness	Description
⊕	**Strength:** When key data elements were present in both the encounter data and the enrollees' medical records and were evaluated independently, the data element values were found to be accurate, each with rates of at least 98 percent.
⊖	**Weakness:** The record omission rates for both sets of encounters were above 5.0 percent. Based on Aetna-C's response, the plan's submission included denied claim lines to HSAG, which were excluded from the plan's original submission to the Agency. **Recommendation:** HSAG recommends that Aetna-C work with the Agency to ensure that all plan-denied encounters are submitted in compliance with the new SMMC contract requirements. This will ensure accurate reporting and compliance with the updated guidelines.
⊖	**Weakness:** For professional encounters, the element accuracy rates for several key data elements were low. **Recommendation:** HSAG recommends that Aetna-C work with the Agency to determine the root cause of these discrepancies.
⊖	**Weakness:** 14.9 percent of procedure code modifiers identified in the encounter data were not supported by enrollees' medical records, and 16.0 percent of procedure codes within enrollee's medical records were not found in the encounter data. **Recommendation:** Aetna-C should investigate the root cause of these omissions and consider performing periodic MRRs of submitted claims to verify appropriate coding and data completeness. Findings from these reviews should be shared with providers through periodic education and training regarding encounter data submissions, medical record documentation, and coding practices.

This appendix contains results and findings for Humana Medical Plan, Inc. (Humana-C/HUM-C).

Comparative Analysis Results

This section presents Humana-C's results for the comparative analysis. Based on study findings from the comparative analysis component, HSAG initiated follow-up activities designed to assist the plans in addressing the major encounter data issues identified from this study. First, HSAG distributed the data discrepancy reports to each plan, which included a description of key issues for the plans to review. Additionally, samples of encounters highlighting identified issues were also distributed to further assist the plans in reviewing the results.

Second, the plans were required to submit written responses on any required resolutions or follow-up items identified and noted in the discrepancy reports. These next sections present the comparative analysis results as reported in the data discrepancy report for Humana-C. Additionally, the images of Humana-C's responses based on its investigative efforts on the example discrepant records are provided later in this appendix.

To ensure rigorous assessment of the completeness and accuracy of the encounters, the Agency provided HSAG with the supplementary diagnosis codes and surgical procedure codes for institutional encounters. HSAG then reassessed the completeness and accuracy of the *Secondary Diagnosis Code* and *Surgical Procedure Code* data elements, incorporating the Agency's supplementary data.

Record Completeness

There are two aspects of record completeness—record omission and record surplus. A record omission occurs when a record is present in the plan's submitted data files for the study but not in the Agency's data files. Similarly, a record surplus occurs when a record is present in the Agency's data files but not in the plan's submitted data files. The Agency encounter data are considered relatively complete when the record omission and record surplus rates are low.

Table C-1 displays the percentage of records present in the Humana-C-submitted files that were not found in the Agency-submitted files (record omission) and the percentage of records present in the Agency-submitted files but not present in the Humana-C-submitted files (record surplus) for the institutional and professional encounters. **Lower rates indicate better performance for both record omission and record surplus**. Rates considered as better performance are shaded green; worse rates are shaded pink.

Table C-1—Record Omission and Surplus

Encounter Type	Omission (Missing in the Agency's Files)	Surplus (Missing in HUM-C's Files)
Institutional Encounters	17.5%	13.7%
Professional Encounters	6.3%	1.5%

Key Findings: Table C-1

- The record omission and surplus rates for institutional encounters were 17.5 percent and 13.7 percent, respectively, exceeding the 5.0 percent threshold. While HSAG was unable to identify any specific patterns for the record omissions, HSAG observed that approximately 96.7 percent of the surplus records were denied by the Agency.

- The record omission rate for professional encounters was 6.3 percent, also exceeding the 5.0 percent threshold. HSAG was unable to identify any patterns for this discrepancy. However, the record surplus rate was 1.5 percent, with no major concerns noted.

Data Element Completeness and Accuracy

Institutional Encounters

Table C-2 displays Humana-C's data element omission, surplus, absent, and accuracy rates for the institutional encounters. Lower rates indicate better performance for element omission and surplus indicators. For the element absent indicator, lower or higher rates do not indicate better or worse performance. Higher rates indicate better performance for element accuracy. Rates considered as better performance are shaded green; worse rates are shaded pink.

Table C-2—Data Element Completeness and Accuracy for Institutional Encounters

Key Data Elements	Element Omission	Element Surplus	Element Absent	Element Accuracy
Enrollee ID	0.0%	0.0%	0.0%	>99.9%
Header Service From Date	0.0%	0.0%	0.0%	99.8%
Header Service To Date	0.0%	0.0%	0.0%	98.7%
Detail Service From Date	0.0%	0.1%	0.0%	>99.9%
Detail Service To Date	0.0%	0.1%	0.0%	>99.9%
Admission Date	0.0%	<0.1%	80.0%	100%
Billing Provider NPI	<0.1%	0.0%	0.0%	93.3%
Attending Provider NPI	1.5%	0.2%	<0.1%	98.0%
Referring Provider NPI	2.7%	0.0%	97.3%	100%
Primary Diagnosis Code	<0.1%	0.0%	<0.1%	>99.9%

Key Data Elements	Element Omission	Element Surplus	Element Absent	Element Accuracy
Secondary Diagnosis Code[2]	6.6%	36.4%	6.8%	4.1%
Procedure Code (CPT/HCPCS)	0.4%	<0.1%	24.8%	>99.9%
Procedure Code Modifier[3]	0.7%	<0.1%	84.7%	99.5%
Units of Service	0.0%	0.0%	0.0%	23.5%
Surgical Procedure Code[4]	<0.1%	3.6%	89.1%	0.0%
NDC	13.2%	0.0%	86.8%	NA[1]
Revenue Code	0.0%	0.0%	0.0%	99.5%
DRG	2.3%	2.2%	85.0%	46.8%
Header Paid Amount	<0.1%	0.0%	0.0%	98.7%
Detail Paid Amount	<0.1%	0.0%	0.0%	81.3%

[1] NA indicates not applicable since no records had values present in both data sources to assess accuracy.
[2] All submitted secondary diagnosis codes were ordered and concatenated as a single data element.
[3] All submitted procedure code modifiers were ordered and concatenated as a single data element.
[4] All submitted surgical procedure codes were ordered and concatenated as a single data element.

Key Findings: Table C-2

- The data element omission and surplus rates were generally low (i.e., at or lower than 5.0 percent) for most evaluated institutional encounter data elements, except for the *Secondary Diagnosis Code* and *NDC* data elements.
  - The omission rate for the *Secondary Diagnosis Code* data element was relatively high at 6.6 percent. HSAG was unable to identify any specific patterns for this discrepancy.
  - The omission rate for the *NDC* data element was also notably high at 13.2 percent. Further investigation revealed that the Agency-submitted encounters did not have any *NDC* values populated.
- The data element accuracy rates were generally high (i.e., at or above 95.0 percent) for most evaluated institutional encounter data elements, except for the *Billing Provider NPI*, *Secondary Diagnosis Code*, *Units of Service*, *Surgical Procedure Code*, *DRG*, and *Detail Paid Amount* data elements.
  - The accuracy rate for the *Billing Provider NPI* data element was low at 93.3 percent, indicating a potential discrepancy due to the Agency and Humana-C using different versions of the PML when submitting the *Billing Provider NPI* values, resulting in different NPI values for the same provider information.
  - Following reassessment, the accuracy rate for the *Secondary Diagnosis Code* data element was very low at 4.1 percent. Humana-C indicated that its system query used to pull the secondary diagnosis codes contributed to the inaccuracies.
  - The accuracy rate for the *Units of Service* data element was low at 23.5 percent. Further investigation revealed that among records with discrepancies, the Agency submitted zero values

for *Units of Service* for 99.7 percent of the encounters, while Humana-C submitted non-zero values.

– After reassessment, the accuracy rate for the *Surgical Procedure Code* data element was very low at 0.0 percent. Humana-C reported that its system query, used to pull the surgical procedure codes for the HSAG extract file, contributed to the inaccuracies.

– The accuracy rate for the *DRG* data element was low at 46.8 percent. Further investigation showed that in 63.0 percent of records that did not match, Humana-C submitted a four-digit DRG code. Among these, the first three digits matched the Agency submission 96.9 percent of the time. Humana-C indicated that within its claims processing system, there may be instances in which an extra digit is included in reporting the *DRG* values that reflects severity. This insight suggests that although the complete *DRG* values may differ, a substantial alignment exists at the level of the first three digits, indicating a higher level of agreement than perceived.

– The accuracy rate for the *Detail Paid Amount* data element was low at 81.3 percent, with Humana-C submitting zero values for *Detail Paid Amount* for more than 99.9 percent of records, while the Agency submitted non-zero values for these records.

Professional Encounters

Table C-3 displays Humana-C's data element omission, surplus, absent, and accuracy rates for the professional encounters. Lower rates indicate better performance for element omission and surplus indicators. For the element absent indicator, lower or higher rates do not indicate better or worse performance. Higher rates indicate better performance for element accuracy. Rates considered as better performance are shaded green; worse rates are shaded pink.

Table C-3—Data Element Completeness and Accuracy for Professional Encounters

Key Data Elements	Element Omission	Element Surplus	Element Absent	Element Accuracy
Enrollee ID	0.0%	0.0%	0.0%	>99.9%
Header Service From Date	0.0%	0.0%	0.0%	99.8%
Header Service To Date	0.0%	0.0%	0.0%	99.9%
Detail Service From Date	0.0%	0.0%	0.0%	>99.9%
Detail Service To Date	0.0%	<0.1%	0.0%	>99.9%
Billing Provider NPI	0.0%	0.0%	0.0%	92.6%
Rendering Provider NPI	<0.1%	0.0%	0.0%	97.4%
Referring Provider NPI	56.0%	0.0%	43.0%	96.4%
Primary Diagnosis Code	<0.1%	0.0%	0.0%	86.5%
Secondary Diagnosis Code[2]	10.3%	<0.1%	42.7%	28.5%
Procedure Code (CPT/HCPCS)	<0.1%	0.0%	0.0%	>99.9%
Procedure Code Modifier[3]	0.1%	<0.1%	66.1%	99.1%

Key Data Elements	Element Omission	Element Surplus	Element Absent	Element Accuracy
Units of Service	0.0%	0.0%	0.0%	58.9%
NDC	3.2%	0.0%	96.8%	NA[1]
Header Paid Amount	0.4%	0.0%	0.0%	96.3%
Detail Paid Amount	0.4%	0.0%	0.0%	50.4%

[1] NA indicates not applicable since no records had values present in both data sources to assess accuracy.
[2] All submitted secondary diagnosis codes were ordered and concatenated as a single data element.
[3] All submitted procedure code modifiers were ordered and concatenated as a single data element.

Key Findings: Table C-3

- The data element omission and surplus rates were low (i.e., at or lower than 5.0 percent) for most evaluated professional encounter data elements, except for the *Referring Provider NPI* and the *Secondary Diagnosis Code* data elements.
  - The omission rate for the *Referring Provider NPI* data element was notably high at 56.0 percent, and HSAG was unable to identify any patterns for the discrepancy.
  - The omission rate for the *Secondary Diagnosis Code* data element was also high at 10.3 percent. Among records wherein the *Secondary Diagnosis Code* data element was populated only in the Humana-C-submitted data, the *Primary Diagnosis Code* values did not align between the Humana-C-submitted encounters and the Agency-submitted encounters for approximately 99.8 percent of the records.
    - o Within this subset of encounters wherein the *Primary Diagnosis Code* values between the Agency and Humana-C differed, the *Secondary Diagnosis Code* values submitted by Humana-C had the same values as the *Primary Diagnosis Code* values submitted by the Agency for almost all encounters.
    - o HSAG also observed that the Humana-C-submitted encounters contained duplicate *Secondary Diagnosis Code* values for approximately 71.9 percent of records that only had the *Secondary Diagnosis Code* data element populated in the Humana-C-submitted data.
- The data element accuracy rates were high (i.e., at or above 95.0 percent) for most evaluated professional encounter data elements, except for the *Billing Provider NPI*, *Primary Diagnosis Code*, *Secondary Diagnosis Code*, *Units of Service*, and *Detail Paid Amount* data elements.
  - The accuracy rate for the *Billing Provider NPI* data element was low at 92.6 percent. One potential cause could be attributed to the Agency and Humana-C using different versions of the PML when submitting the *Billing Provider NPI* values, resulting in different NPI values for the same provider information.
  - The accuracy rate for the *Primary Diagnosis Code* data element was low at 86.5 percent. Among records with discrepancies, approximately 99.1 percent of the *Primary Diagnosis Code* values submitted by the Agency were found in the *Secondary Diagnosis Code* field in the Humana-C-submitted encounters.
  - The accuracy rate for the *Secondary Diagnosis Code* data element was low at 28.5 percent. Further investigation revealed that among records with discrepancies, Humana-C submitted

encounters containing duplicate *Secondary Diagnosis Code* values for approximately 94.5 percent of records.

– The accuracy rate for the *Units of Service* data element was low at 58.9 percent. Further investigation revealed that among records with discrepancies, approximately 94.1 percent were Agency-denied encounters. Of those Agency-denied encounters, the Agency populated zero values for *Units of Service*, while Humana-C populated non-zero values.

– The accuracy rate for the *Detail Paid Amount* data element was low at 50.4 percent. Further investigation revealed that among records with discrepancies, Humana-C submitted zero values for *Detail Paid Amount*, while the Agency submitted non-zero values for almost all encounters.

The image below presents Humana-C's investigative efforts and explanations from the data discrepancy report.

Table	Discrepancy Item	HUM-C's Investigation Efforts and Explanations
Table 1	Institutional encounter record omission rate (17.5 percent)	Upon review of the samples provided, Humana believes that the majority of the omissions identified were encounters related to plan denials. Please advise if these encounters should be reported differently for studies.
Table 1	Institutional encounter record surplus rate (13.7 percent)	Upon review of the samples provided, Humana believes that the surplus is related to the system query used to pull encounters with adjusted ICNs. Please advise if these encounters should be reported differently for studies.
Table 1	Professional encounter record omission rate (6.3 percent)	Upon review of the samples provided, Humana believes that the majority of the omissions identified were encounters related to plan denials. Please advise if these encounters should be reported differently for studies.

Table	Discrepancy Item	HUM-C's Investigation Efforts and Explanations
Table 2	*Billing Provider NPI* accuracy rate (93.3 percent) for institutional encounter data	Upon review, Humana submitted the NPI identified on the Provider Master List (PML) file as published on the date of claims adjudication.
Table 2	*Secondary Diagnosis Code* omission rate (6.6 percent), surplus rate (36.4 percent), and accuracy rate (4.3 percent) for institutional encounter data	Our review of the samples identified that the system query used to pull the Secondary Diagnosis Codes contributed to the appearance of omissions, surpluses, and inaccuracies. Please note that the original encounters submitted to FMMIS were accurate.
Table 2	*Units of Service* accuracy rate (23.5 percent) for institutional encounter data	Our review of the samples confirmed that Humana submitted the appropriate non-zero Units of Service values on both the original encounter submitted to FMMIS, as well as the data extract file submitted to HSAG. We do not believe that this is a Humana issue.
Table 2	*Surgical Procedure Code* accuracy rate (0.1 percent) for institutional encounter data	Our review of the samples identified that the system query used to pull the Surgical Procedure Codes contributed to the appearance of inaccuracies. Please note that the original encounters submitted to FMMIS were accurate.
Table 2	*NDC* omission rate (13.2 percent) for institutional encounter data	Our review of the samples confirmed that Humana submitted the appropriate NDC values on both the original encounters to FMMIS, as well as the data extract file submitted to HSAG. We do not believe that this is a Humana system issue.
Table 2	*DRG* accuracy rate (46.8 percent) for institutional encounter data	Humana agrees with your feedback that although the complete DRG values may differ, a substantial alignment exists at the level of the first three digits, indicating a higher level of agreement than perceived.
Table 2	*Detail Paid Amount* accuracy rate (81.3 percent) for institutional encounter data	Our review of the samples identified that the system query used to pull the Detail Paid Amounts contributed to the appearance of inaccuracies. Please note that the original encounters submitted to FMMIS were accurate.
Table 3	*Billing Provider NPI* accuracy rate (92.6 percent) for professional encounter data	Upon review, Humana submitted the NPI identified on the Provider Master List (PML) file as published on the date of claims adjudication.
Table 3	*Referring Provider NPI* omission rate (56.0 percent) for professional encounter data	Our review of the samples confirmed that Humana submitted the appropriate values for Referring Provider NPI on both the original encounters to FMMIS, as well as the data extract file submitted to HSAG. We do not believe that this is a Humana system issue.
Table 3	*Primary Diagnosis Code* accuracy rate (86.5 percent) for professional encounter data	Our review of the samples identified that the system query used to pull these Primary Diagnosis Codes contributed to the appearance of inaccuracies. Please note that the original encounters submitted to FMMIS were accurate.

Table	Discrepancy Item	HUM-C's Investigation Efforts and Explanations
Table 3	*Secondary Diagnosis Code* omission rate (10.3 percent) and accuracy rate (28.5 percent) for professional encounter data	Our review of the samples identified that the system query used to pull the HSAG extract file inadvertently duplicated Diagnosis Codes for some encounters which resulted in the appearance of omissions and inaccuracies. Please note that the original encounters submitted to FMMIS were accurate.
Table 3	*Units of Service* accuracy rate (58.9 percent) for professional encounter data	Our review of the samples confirmed that Humana submitted the appropriate non-zero Units of Service values on both the original encounter submitted to FMMIS, as well as the data extract file submitted HSAG. We do not believe that this is a Humana system issue.
Table 3	*Detail Paid Amount* accuracy rate (50.4 percent) for professional encounter data	Our review of the samples identified that the system query used to pull the Detail Paid Amounts contributed to the appearance of inaccuracies. Please note that the original encounters submitted to FMMIS were accurate.

Medical Record Review Results

Medical Record Procurement Status

Table C-4 shows the medical record submission status for Humana-C, detailing the number of medical records requested as well as the number and percentage of medical records submitted by Humana-C as indicated in its submitted tracking sheets.

Table C-4—Medical Record Procurement Status for Humana-C

Plan	Number of Records Requested	Number of Records Submitted		Records Submitted With Second Date of Service	
		Number	Percent	Number	Percent
HUM-C	263	260	98.9%	158	60.8%
All Plans	**2,104**	**1,787**	**84.9%**	**824**	**46.1%**

Table C-5 highlights the key reasons Humana-C did not submit medical records.

Table C-5—Reasons for Missing Medical Records for Humana-C

Non-Submission Reason	Count	Percent
Non-responsive provider or provider did not respond in a timely manner.	2	66.7%
Practice is permanently closed.	1	33.3%
Total	**3**	**100%**

Encounter Data Completeness

Table C-6 displays the record omission and encounter data omission rates for each key data element for Humana-C. Using the *Diagnosis Code* data element as an example, the list below shows the specifications for the denominator and numerator:

- Medical record omission rate: The denominator for the medical record omission rate is the number of diagnosis codes identified in the Agency's electronic encounter data, and the numerator is the number of diagnosis codes identified in the Agency's electronic encounter data that were not found (i.e., not supported) in the enrollees' medical records.

  In the analysis, when no medical records were submitted for a sampled date of service, all other key data elements associated with that date of service were treated as medical record omissions.

- Encounter data omission rate: The denominator for the encounter data omission rate is the number of diagnosis codes identified in the enrollees' medical records, and the numerator is the number of diagnosis codes from the enrollees' medical records that were not found in the Agency's electronic encounter data.

Table C-6—Encounter Data Completeness Summary for Humana-C

Data Element	Medical Record Omission*			Encounter Data Omission*		
	Denominator	Numerator	Rate	Denominator	Numerator	Rate
Date of Service	278	3	1.1%	303	28	9.2%
Diagnosis Code	730	25	3.4%	738	33	4.5%
Procedure Code	499	38	7.6%	526	65	12.4%
Procedure Code Modifier	176	41	23.3%	139	4	2.9%

* Lower rates indicate better performance.

Encounter Data Accuracy

Table C-7 displays the element accuracy rates for each key data element and the all-element accuracy rate for Humana-C. Encounter data accuracy was evaluated for dates of service that existed in both the Agency's encounter data and the submitted medical records, with values present in both data sources for the evaluated data element. Using the *Diagnosis Code* data element as an example, the list below shows the specifications for the denominator and the numerator:

- Denominator: The denominator for the accuracy rate is the number of diagnosis codes associated with dates of service that existed in both the Agency's electronic encounter data and the enrollees' medical records. In addition, both data sources had values for the *Diagnosis Code* data element.

- Numerator: The numerator for the accuracy rate is the number of diagnosis codes in the denominator that were correctly coded based on the enrollees' medical records submitted for the study.

Table C-7—Encounter Data Accuracy Summary for Humana-C

Data Element	Denominator	Numerator	Rate	Error Type Percentages
Diagnosis Code	705	704	99.9%	Specificity Error: 100%
Procedure Code	461	447	97.0%	Inaccurate Code: 92.9% Lower Level of Service in Medical Record: 7.1%
Procedure Code Modifier	135	135	100%	—
All-Element Accuracy	275	205	74.5%	—

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

Conclusions

Based on results from the comparative analysis and MRR, HSAG identified the areas of strength and opportunities for improvement. Along with each opportunity for improvement, HSAG has also provided a recommendation to help target improvement efforts.

Table C-8 highlights Humana-C's strengths, weaknesses, and recommendations, as applicable, that were identified from the EDV study. The green highlighted rows represent descriptions associated with the comparative analysis, while the non-highlighted rows pertain to the MRR descriptions.

Strengths and Weaknesses

Table C-8—Strengths and Weaknesses for Humana-C

Strength/ Weakness	Description
+	**Strength:** For both sets of encounters, a high level of element completeness (i.e., low element omission and surplus rates) was generally exhibited among encounters that could be matched between the Agency-submitted encounters and Humana-C-submitted encounters.
+	**Strength:** Encounter data omission rates were generally low for *Date of Service, Diagnosis Code,* and *Procedure Code Modifier* data elements, ranging from 2.9 percent (*Procedure Code Modifier*) to 9.2 percent (*Date of Service*). Medical record omission rates were moderately low for *Date of Service*, *Diagnosis Code*, and *Procedure Code* data elements, ranging from 1.1 percent (*Date of Service*) to 7.6 percent (*Procedure Code*). These findings indicate that the encounter data were supported by the medical records, allowing for confident future analyses. Additionally, they suggest that providers are accurately documenting and submitting encounters to Humana-C.
+	**Strength:** When key data elements were present in both the encounter data and the enrollees' medical records and were evaluated independently, the data element values were found to be accurate, each with rates of at least 97 percent.

Strength/ Weakness	Description
⊖	**Weakness:** The record omission rates for both sets of encounters were above 5.0 percent. Based on Humana-C's response, the plan's submission included denied claim lines to HSAG, which were excluded from its original submission to the Agency. **Recommendation:** HSAG recommends that Humana-C work with the Agency to ensure that all plan-denied encounters are submitted in compliance with the new SMMC contract requirements. This will ensure accurate reporting and compliance with the updated guidelines.
⊖	**Weakness:** For both sets of encounters, the element accuracy rates for several key data elements were low. Humana-C noted that the root causes for several key data elements were due to erroneous system query when pulling the encounters for HSAG. **Recommendation:** HSAG recommends that Humana-C consider review of standard quality controls to verify accurate data extracts from its respective systems. Standard data extraction procedures and quality control should reduce the number of errors associated with extracted data.
⊖	**Weakness:** 23.3 percent of procedure code modifiers identified in the encounter data were not supported by enrollees' medical records, while 12.4 percent of procedure codes within enrollees' medical records were not found in the encounter data. **Recommendation:** Humana-C should investigate the root cause of these omissions and consider performing periodic MRRs of submitted claims to verify appropriate coding and data completeness. Findings from these reviews should be shared with providers through periodic education and training regarding encounter data submissions, medical record documentation, and coding practices.

This appendix contains results and findings for Molina Healthcare of Florida, Inc. (Molina-C/MOL-C).

Comparative Analysis Results

This section presents Molina-C's results for the comparative analysis. Based on study findings from the comparative analysis component, HSAG initiated follow-up activities designed to assist the plans in addressing the major encounter data issues identified from this study. First, HSAG distributed the data discrepancy reports to each plan, which included a description of key issues for the plans to review. Additionally, samples of encounters highlighting identified issues were also distributed to further assist the plans in reviewing the results.

Second, the plans were required to submit written responses on any required resolutions or follow-up items identified and noted in the discrepancy reports. These next sections present the comparative analysis results as reported in the data discrepancy report for Molina-C. Additionally, the images of Molina-C's responses based on its investigative efforts on the example discrepant records are provided later in this appendix.

To ensure rigorous assessment of the completeness and accuracy of the encounters, the Agency provided HSAG with the supplementary diagnosis codes and surgical procedure codes for institutional encounters. HSAG then reassessed the completeness and accuracy of the *Secondary Diagnosis Code* and *Surgical Procedure Code* data elements, incorporating the Agency's supplementary data.

Record Completeness

There are two aspects of record completeness—record omission and record surplus. A record omission occurs when a record is present in the plan's submitted data files for the study but not in the Agency's data files. Similarly, a record surplus occurs when a record is present in the Agency's data files but not in the plan's submitted data files. The Agency encounter data are considered relatively complete when the record omission and record surplus rates are low.

Table D-1 displays the percentage of records present in the Molina-C-submitted files that were not found in the Agency-submitted files (record omission) and the percentage of records present in the Agency-submitted files but not present in the Molina-C-submitted files (record surplus) for the institutional and professional encounters. **Lower rates indicate better performance for both record omission and record surplus**. Rates considered as better performance are shaded green; worse rates are shaded pink.

Table D-1—Record Omission and Surplus

Encounter Type	Omission (Missing in the Agency's Files)	Surplus (Missing in MOL-C's Files)
Institutional Encounters	5.3%	3.7%
Professional Encounters	2.2%	2.3%

Key Findings: Table D-1

- The record omission rate for institutional encounters was 5.3 percent, which was slightly higher than the 5.0 percent threshold. HSAG was unable to identify any pattern(s) for the discrepancy. The record surplus rate was 3.7 percent, with no major concerns noted.

- There were no major issues noted regarding the record omission and surplus rates for professional encounters, with rates of 2.2 percent and 2.3 percent, respectively.

Data Element Completeness and Accuracy

Institutional Encounters

Table D-2 displays Molina-C's data element omission, surplus, absent, and accuracy rates for the institutional encounters. Lower rates indicate better performance for element omission and surplus indicators. For the element absent indicator, lower or higher rates do not indicate better or worse performance. Higher rates indicate better performance for element accuracy. Rates considered as better performance are shaded green; worse rates are shaded pink.

Table D-2—Data Element Completeness and Accuracy for Institutional Encounters

Key Data Elements	Element Omission	Element Surplus	Element Absent	Element Accuracy
Enrollee ID	0.0%	0.0%	0.0%	>99.9%
Header Service From Date	0.0%	0.0%	0.0%	99.9%
Header Service To Date	0.0%	0.0%	0.0%	98.9%
Detail Service From Date	0.0%	0.0%	0.0%	100%
Detail Service To Date	0.0%	0.0%	0.0%	100%
Admission Date	76.3%	0.0%	0.0%	100%
Billing Provider NPI	0.0%	0.0%	0.0%	89.6%
Attending Provider NPI	9.4%	0.0%	<0.1%	95.1%
Referring Provider NPI	1.8%	0.0%	97.9%	96.2%
Primary Diagnosis Code	0.0%	0.0%	0.0%	100%
Secondary Diagnosis Code[2]	0.0%	0.0%	12.3%	>99.9%
Procedure Code (CPT/HCPCS)	0.3%	0.0%	23.4%	100%

Key Data Elements	Element Omission	Element Surplus	Element Absent	Element Accuracy
Procedure Code Modifier[3]	1.3%	0.0%	83.2%	99.4%
Units of Service	0.0%	0.0%	0.0%	78.5%
Surgical Procedure Code[4]	<0.1%	0.0%	88.7%	88.6%
NDC	11.6%	0.0%	88.4%	NA[1]
Revenue Code	0.0%	0.0%	0.0%	99.7%
DRG	0.4%	<0.1%	84.9%	2.0%
Header Paid Amount	0.0%	0.0%	0.0%	99.1%
Detail Paid Amount	0.0%	0.0%	0.0%	>99.9%

[1] NA indicates not applicable since no records had values present in both data sources to assess accuracy.
[2] All submitted secondary diagnosis codes were ordered and concatenated as a single data element.
[3] All submitted procedure code modifiers were ordered and concatenated as a single data element.
[4] All submitted surgical procedure codes were ordered and concatenated as a single data element.

Key Findings: Table D-2

- The data element omission and surplus rates were generally low (i.e., at or lower than 5.0 percent) for most evaluated institutional encounter data elements, except for the *Admission Date*, *Attending Provider NPI*, and *NDC* data elements.
  - The omission rate for the *Admission Date* data element was high at 76.3 percent, and HSAG was unable to identify any patterns for the discrepancy.
  - The omission rate for the *Attending Provider NPI* data element was high at 9.4 percent, and HSAG was unable to identify any patterns for the discrepancy.
  - The omission rate for the *NDC* data element was high at 11.6 percent. Further investigation revealed that the Agency-submitted encounters did not have any *NDC* values populated.
- The accuracy rates for most evaluated institutional encounter data elements were high (i.e., at or above 95.0 percent), except for the *Billing Provider NPI*, *Units of Service*, *Surgical Procedure Code*, and *DRG* data elements.
  - The accuracy rate for the *Billing Provider NPI* data element was low at 89.6 percent. This discrepancy could be attributed to the Agency and Molina-C using different versions of the PML when submitting the *Billing Provider NPI* values, resulting in different NPI values for the same provider information.
  - Following reassessment, the accuracy rate for the *Secondary Diagnosis Code* data element improved substantially from 62.0 percent to greater than 99.9 percent, and it was no longer a major concern.
  - The accuracy rate for the *Units of Service* data element was low at 78.5 percent. Further investigation showed that among records with discrepancies, the Agency submitted zero values for *Units of Service*, while Molina-C submitted non-zero values for 98.7 percent of the encounters.
  - After reassessment, the accuracy rate for the *Surgical Procedure Code* data element improved substantially from 77.0 percent to 88.6 percent.

– The accuracy rate for the *DRG* data element was very low at 2.0 percent. Further investigation revealed that among records wherein the data element did not match, the Agency-submitted *DRG* values consisted of three digits, while those submitted by Molina-C consisted of four digits in approximately 98.3 percent of the records. Moreover, within this subset, the first three digits of the Molina-C-submitted *DRG* values matched the Agency-submitted *DRG* values in approximately 98.9 percent of the records wherein the *DRG* data element did not match. Molina-C indicated that the first three digits represent the base DRG, while the last digit signifies the severity. This insight suggests that although the complete *DRG* values may differ, a substantial alignment exists at the level of the first three digits, indicating a higher level of agreement than perceived.

Professional Encounters

Table D-3 displays Molina-C's data element omission, surplus, absent, and accuracy rates for the professional encounters. Lower rates indicate better performance for element omission and surplus indicators. For the element absent indicator, lower or higher rates do not indicate better or worse performance. Higher rates indicate better performance for element accuracy. Rates considered as better performance are shaded green; worse rates are shaded pink.

Table D-3—Data Element Completeness and Accuracy for Professional Encounters

Key Data Elements	Element Omission	Element Surplus	Element Absent	Element Accuracy
Enrollee ID	0.0%	0.0%	0.0%	>99.9%
Header Service From Date	0.0%	0.0%	0.0%	99.8%
Header Service To Date	0.0%	0.0%	0.0%	99.8%
Detail Service From Date	0.0%	0.0%	0.0%	100%
Detail Service To Date	0.0%	0.0%	0.0%	100%
Billing Provider NPI	0.0%	0.0%	<0.1%	90.6%
Rendering Provider NPI	0.0%	0.0%	<0.1%	98.1%
Referring Provider NPI	6.3%	0.0%	43.6%	95.6%
Primary Diagnosis Code	0.0%	0.0%	0.0%	89.4%
Secondary Diagnosis Code[2]	14.5%	0.0%	40.0%	69.8%
Procedure Code (CPT/HCPCS)	<0.1%	0.0%	0.0%	99.8%
Procedure Code Modifier[3]	0.1%	0.0%	60.6%	99.3%
Units of Service	0.0%	0.0%	0.0%	84.9%
NDC	4.0%	0.0%	96.0%	NA[1]
Header Paid Amount	0.0%	0.0%	0.0%	85.9%
Detail Paid Amount	0.0%	0.0%	0.0%	86.4%

[1] NA indicates not applicable since no records had values present in both data sources to assess accuracy.
[2] All submitted secondary diagnosis codes were ordered and concatenated as a single data element.
[3] All submitted procedure code modifiers were ordered and concatenated as a single data element.

Key Findings: Table D-3

- The data element omission and surplus rates were generally low (i.e., at or lower than 5.0 percent) for most evaluated professional encounter data elements, except for the *Referring Provider NPI* and *Secondary Diagnosis Code* data elements.
  - The omission rate for the *Referring Provider NPI* data element was high at 6.3 percent, and HSAG was unable to identify any patterns for the discrepancy.
  - The omission rate for the *Secondary Diagnosis Code* data element was high at 14.5 percent. Among records that only had the *Secondary Diagnosis Code* data element populated in the Molina-C-submitted data, the *Primary Diagnosis Code* values did not match between the Molina-C-submitted encounters and the Agency-submitted encounters for approximately 57.3 percent of the records.
    - Within those 57.3 percent of encounters wherein the *Primary Diagnosis Code* values differed between the Agency and Molina-C, the *Secondary Diagnosis Code* values submitted by Molina-C contained the *Primary Diagnosis Code* values submitted by the Agency.
- The data element accuracy rates for most evaluated professional encounter data elements were high (i.e., at or above 95.0 percent), except for the *Billing Provider NPI*, *Primary Diagnosis Code*, *Secondary Diagnosis Code*, *Units of Service*, *Header Paid Amount*, and *Detail Paid Amount* data elements.
  - The accuracy rate for the *Billing Provider NPI* data element was low at 90.6 percent. This discrepancy could be attributed to the Agency and Molina-C using different versions of the PML when submitting the *Billing Provider NPI* values, leading to variations in NPI values for the same provider information.
  - The accuracy rate for the *Primary Diagnosis Code* data element was low at 89.4 percent. Among records with discrepancies, all *Primary Diagnosis Code* values submitted by the Agency were found in the *Secondary Diagnosis Code* field in the Molina-C-submitted encounters.
  - The accuracy rate for the *Secondary Diagnosis Code* data element was low at 69.8 percent. Further investigation revealed that in records with discrepancies, the Molina-C-submitted data had more secondary diagnosis codes populated compared to the Agency-submitted data for 95.9 percent of the records.
  - The accuracy rate for the *Units of Service* data element was low at 84.9 percent. Further investigation revealed that among records with discrepancies, approximately 78.7 percent were Agency-denied encounters. Of those Agency-denied encounters, the Agency populated zero values for *Units of Service*, while Molina-C populated non-zero values for the field.
  - The accuracy rate for the *Header Paid Amount* data element was low at 85.9 percent. Further investigation revealed that among the records with discrepancies, Molina-C submitted zero values for *Header Paid Amount*, while the Agency submitted non-zero values for 99.4 percent of the encounters.
  - The accuracy rate for the *Detail Paid Amount* data element was low at 86.4 percent. Further investigation revealed that among the records with discrepancies, Molina-C submitted zero values for *Detail Paid Amount*, while the Agency submitted non-zero values for 99.9 percent of the encounters.

The image below presents Molina C's investigative efforts and explanations from the data discrepancy report.

Table	Discrepancy Item	MOL-C's Investigation Efforts and Explanations
Table 1	Institutional encounter record omission rate (5.3 percent)	Molina has completed the review and investigation into this reported issue. We identified that the majority of the examples were reversals due to receipt of corrected claims. It would appear that the Agency extract only included the final corrected claim. Although the final corrected claim, and the reversal have different claim numbers in our system, we can adjust our extract logic for future HSAG submissions to include only the final corrected claim.

Table	Discrepancy Item	MOL-C's Investigation Efforts and Explanations
Table 2	*Admission Date* omission rate (76.3 percent) for institutional encounter data	Molina has completed the review into this issue. It was determined that the Admission Date was not required for the original encounters submitted to FMMIS, so therefore was absent from Agency data, however was included in the HSAG data. We can exclude from future submissions to align to Agency submission requirements.
Table 2	*Billing Provider NPI* accuracy rate (89.6 percent) for institutional encounter data	The example claims show as being correctly reported on the original encounter submitted to FMMIS as well as the HSAG extract. There seems to be no issue from Molina's perspective.
Table 2	*Attending Provider NPI* omission rate (9.4 percent) for institutional encounter data	The example claims show as being correctly reported on the original encounter submitted to FMMIS as well as the HSAG extract. Molina is unable to determine why it was not included in the Agency data extract. There seems to be no issue from Molina's perspective.
Table 2	*Secondary Diagnosis Code* accuracy rate (62.0 percent) for institutional encounter data	The example claims show as being correctly reported on the original encounter submitted to FMMIS as well as the HSAG extract. It appears that the state extract was limited to the first three (3) secondary Diagnoses but MCOs can submit up to 24 and do, when present on the claim. There seems to be no issue from Molina's perspective. We can adjust future HSAG extracts to any limit utilized for future Agency extracts.
Table 2	*Units of Service* accuracy rate (78.5 percent) for institutional encounter data	The example claims show as being correctly reported on the original encounter submitted to FMMIS as well as the HSAG extract. There seems to be no issue from Molina's perspective.
Table 2	*Surgical Procedure Code* accuracy rate (77.0 percent) for institutional encounter data	The example claims show as being correctly reported on the original encounter submitted to FMMIS as well as the HSAG extract. It appears that the state extract was limited to the first four (4) Surgical Procedures but MCOs can submit up to X and do, when present on the claim. There seems to be no issue from Molina's perspective. We can adjust future HSAG extracts to any limit utilized for future Agency extracts.
Table 2	*NDC* omission rate (11.6 percent) for institutional encounter data	The example claims show as being correctly reported on the original encounter submitted to FMMIS as well as the HSAG extract. There seems to be no issue from Molina's perspective.

Table	Discrepancy Item	MOL-C's Investigation Efforts and Explanations
Table 2	*DRG* accuracy rate (2.0 percent) for institutional encounter data	The example claims show as being correctly reported on the original encounter submitted to FMMIS as well as the HSAG extract. It appears that the state extract was limited to the first three (3) digits of the DRG and did not include the level of severity reported with the DRG on the outbound encounter. There seems to be no issue from Molina's perspective. We can adjust future HSAG extracts to remove the level of severity reported if requested.
Table 3	*Billing Provider NPI* accuracy rate (90.6 percent) for professional encounter data	The example claims show as being correctly reported on the original encounter submitted to FMMIS as well as the HSAG extract. There seems to be no issue from Molina's perspective.
Table 3	*Referring Provider NPI* omission rate (6.3 percent) for professional encounter data	Molina has completed the review into this issue. It was determined that Referring Provider data was submitted to HSAG for some claims, which was not a required information on the original encounters submitted to FMMIS.
Table 3	*Primary Diagnosis Code* accuracy rate (89.4 percent) for professional encounter data	The example claims show as being correctly reported on the original encounter submitted to FMMIS as well as the HSAG extract. There seems to be no issue from Molina's perspective.
Table 3	*Secondary Diagnosis Code* omission rate (14.5 percent) and accuracy rate (69.8 percent) for professional encounter data	The example claims show as being correctly reported on the original encounter submitted to FMMIS as well as the HSAG extract. There seems to be no issue from Molina's perspective.
Table 3	*Units of Service* accuracy rate (84.9 percent) for professional encounter data	The example claims show as being correctly reported on the original encounter submitted to FMMIS as well as the HSAG extract. There seems to be no issue from Molina's perspective.
Table 3	*Header Paid Amount* accuracy rate (85.9 percent) for professional encounter data	Molina's investigation shows this issue was limited to the Capitated provider claims with a downstream paid amount, indicated by the Contract type indicator of "05". These were $0 reported on header paid on HSAG extract rather than including the downstream paid amount which was reported in the outbound encounter submission to the Agency. We can generate a new report, if requested to include what was on the outbound encounter submission per Agency guidelines.

Table	Discrepancy Item	MOL-C's Investigation Efforts and Explanations
Table 3	*Detail Paid Amount* accuracy rate (86.4 percent) for professional encounter data	Molina's investigation shows this issue was limited to the Capitated provider claims with a downstream paid amount, indicated by the Contract type indicator of "05". These were $0 reported on detail paid on HSAG extract rather than including the downstream paid amount which was reported in the outbound encounter submission to the Agency. We can generate a new report, if requested to include what was on the outbound encounter submission per Agency guidelines.

Medical Record Review Results

Medical Record Procurement Status

Table D-4 shows the medical record submission status for Molina-C, detailing the number of medical records requested as well as the number and percentage of medical records submitted by Molina-C as indicated in its submitted tracking sheets.

Table D-4—Medical Record Procurement Status for Molina-C

Plan	Number of Records Requested	Number of Records Submitted		Records Submitted With Second Date of Service	
		Number	Percent	Number	Percent
MOL-C	263	222	84.4%	140	63.1%
All Plans	**2,104**	**1,787**	**84.9%**	**824**	**46.1%**

Table D-5 highlights the key reasons Molina-C did not submit medical records.

Table D-5—Reasons for Missing Medical Records for Molina-C

Non-Submission Reason	Count	Percent
Non-responsive provider or provider did not respond in a timely manner.	34	82.9%
Medical record not located at this practice.	3	7.3%
Enrollee is a patient of this practice; however, no documentation available for DOS.	2	4.9%
Enrollee is not a patient of this practice.	1	2.4%
Practice is permanently closed.	1	2.4%
Total	**41**	**100%**

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

Encounter Data Completeness

Table D-6 displays the record omission and encounter data omission rates for each key data element for Molina-C. Using the *Diagnosis Code* data element as an example, the list below shows the specifications for the denominator and numerator:

- Medical record omission rate: The denominator for the medical record omission rate is the number of diagnosis codes identified in the Agency's electronic encounter data, and the numerator is the number of diagnosis codes identified in the Agency's electronic encounter data that were not found (i.e., not supported) in the enrollees' medical records.

In the analysis, when no medical records were submitted for a sampled date of service, all other key data elements associated with that date of service were treated as medical record omissions.

- Encounter data omission rate: The denominator for the encounter data omission rate is the number of diagnosis codes identified in the enrollees' medical records, and the numerator is the number of diagnosis codes from the enrollees' medical records that were not found in the Agency's electronic encounter data.

Table D-6—Encounter Data Completeness Summary for Molina-C

Data Element	Medical Record Omission*			Encounter Data Omission*		
	Denominator	Numerator	Rate	Denominator	Numerator	Rate
Date of Service	280	3	1.1%	304	27	8.9%
Diagnosis Code	700	17	2.4%	716	33	4.6%
Procedure Code	531	32	6.0%	563	64	11.4%
Procedure Code Modifier	164	36	22.0%	140	12	8.6%

* Lower rates indicate better performance.

Encounter Data Accuracy

Table D-7 displays the element accuracy rates for each key data element and the all-element accuracy rate for Molina-C. Encounter data accuracy was evaluated for dates of service that existed in both the Agency's encounter data and the submitted medical records, with values present in both data sources for the evaluated data element. Using the *Diagnosis Code* data element as an example, the list below shows the specifications for the denominator and the numerator:

- Denominator: The denominator for the accuracy rate is the number of diagnosis codes associated with dates of service that existed in both the Agency's electronic encounter data and the enrollees' medical records. In addition, both data sources had values for the *Diagnosis Code* data element.
- Numerator: The numerator for the accuracy rate is the number of diagnosis codes in the denominator that were correctly coded based on the enrollees' medical records submitted for the study.

Table D-7—Encounter Data Accuracy Summary for Molina-C

Data Element	Denominator	Numerator	Rate	Error Type Percentages
Diagnosis Code	683	675	98.8%	Inaccurate Code: 87.5% Specificity Error: 12.5%
Procedure Code	499	490	98.2%	Inaccurate Code: 100%
Procedure Code Modifier	128	128	100%	—
All-Element Accuracy	277	203	73.3%	—

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

Conclusions

Based on results from the comparative analysis and MRR, HSAG identified the areas of strength and opportunities for improvement. Along with each opportunity for improvement, HSAG has also provided a recommendation to help target improvement efforts.

Table D-8 highlights Molina-C's strengths, weaknesses, and recommendations, as applicable, that were identified from the EDV study. The green highlighted rows represent descriptions associated with the comparative analysis, while the non-highlighted rows pertain to the MRR descriptions.

Strengths and Weaknesses

Table D-8—Strengths and Weaknesses for Molina-C

Strength/ Weakness	Description
+	**Strength:** Molina-C's professional encounters exhibited high levels of completeness with low record omission and record surplus rates.
+	**Strength:** For both sets of encounters, a high level of element completeness (i.e., low element omission and surplus rates) was generally exhibited among encounters that could be matched between the Agency-submitted encounters and Molina-C-submitted encounters.
+	**Strength:** Encounter data omission rates were generally low for *Date of Service*, *Diagnosis Code*, and *Procedure Code Modifier* data elements, ranging from 4.6 percent (*Diagnosis Code*) to 8.9 percent (*Date of Service*). Medical record omission rates were moderately low for *Date of Service*, *Diagnosis Code*, and *Procedure Code* data elements, ranging from 1.1 percent (*Date of Service*) to 6.0 percent (*Procedure Code*). These findings indicate that the encounter data were supported by the medical records, allowing for confident future analyses. Additionally, they suggest that providers are accurately documenting and submitting encounters to Molina-C.
+	**Strength:** When key data elements were present in both the encounter data and the enrollees' medical records and were evaluated independently, the data element values were found to be accurate, each with rates of at least 98 percent.
−	**Weakness:** For both sets of encounters, the element accuracy rates for several key data elements were low. **Recommendation:** HSAG recommends that Molina-C work with the Agency to determine the root cause of these discrepancies.
−	**Weakness:** 84.4 percent of requested medical records were submitted. Of the medical records not submitted, approximately 83 percent were not submitted due to non-responsive providers. **Recommendation:** Molina-C should emphasize to contracted providers the importance of the MRR for EDV activities. Providers should be held accountable for responding to medical record requests for auditing, inspection, and oversight. HSAG recommends that Molina-C consider strengthening and/or enforcing its contract requirements with providers in providing the requested documentation to ensure future data requests can be met.

Strength/ Weakness	Description
➖	**Weakness:** 22.0 percent of procedure code modifiers identified in the encounter data were not supported by enrollees' medical records, while 11.4 percent of procedure codes within enrollees' medical records were not found in the encounter data.
	Recommendation: Molina-C should investigate the root cause of these omissions and consider performing periodic MRRs of submitted claims to verify appropriate coding and data completeness. Findings from these reviews should be shared with providers through periodic education and training regarding encounter data submissions, medical record documentation, and coding practices.

This appendix contains results and findings for Simply Healthcare Plans, Inc. (Simply-C/SIM-C).

Comparative Analysis Results

This section presents Simply-C's results for the comparative analysis. Based on study findings from the comparative analysis component, HSAG initiated follow-up activities designed to assist the plans in addressing the major encounter data issues identified from this study. First, HSAG distributed the data discrepancy reports to each plan, which included a description of key issues for the plans to review. Additionally, samples of encounters highlighting identified issues were also distributed to further assist the plans in reviewing the results.

Second, the plans were required to submit written responses on any required resolutions or follow-up items identified and noted in the discrepancy reports. These next sections present the comparative analysis results as reported in the data discrepancy report for Simply-C. Additionally, the images of Simply-C's responses based on its investigative efforts on the example discrepant records are provided later in this appendix.

To ensure rigorous assessment of the completeness and accuracy of the encounters, the Agency provided HSAG with the supplementary diagnosis codes and surgical procedure codes for institutional encounters. HSAG then reassessed the completeness and accuracy of the *Secondary Diagnosis Code* and *Surgical Procedure Code* data elements, incorporating the Agency's supplementary data.

Record Completeness

There are two aspects of record completeness—record omission and record surplus. A record omission occurs when a record is present in the plan's submitted data files for the study but not in the Agency's data files. Similarly, a record surplus occurs when a record is present in the Agency's data files but not in the plan's submitted data files. The Agency encounter data are considered relatively complete when the record omission and record surplus rates are low.

Table E-1 displays the percentage of records present in the Simply-C-submitted files that were not found in the Agency-submitted files (record omission) and the percentage of records present in the Agency-submitted files but not present in the Simply-C-submitted files (record surplus) for the institutional and professional encounters. **Lower rates indicate better performance for both record omission and record surplus**. Rates considered as better performance are shaded green; worse rates are shaded pink.

Table E-1—Record Omission and Surplus

Encounter Type	Omission (Missing in the Agency's Files)	Surplus (Missing in SIM-C's Files)
Institutional Encounters	16.0%	12.0%
Professional Encounters	6.2%	7.3%

Key Findings: Table E-1

The institutional encounter record omission rate and record surplus rate were 16.0 percent and 12.0 percent, respectively, both exceeding the 5.0 percent threshold.

- Among records found only in the Simply-C-submitted data, approximately 77.0 percent had missing *ICN* values. Among records found only in the Agency-submitted data, approximately 86.5 percent had "72" as the first two digits of the ICNs. Simply-C informed HSAG that the plan would not have those ICNs, as the encounters were plan denied and were not returned on 835 files. Among the surplus encounters with "72" as the first two digits of the ICNs, 93.1 percent had missing *TCN* values. Consequently, since either the *ICN* or *TCN* was used as part of the unique key to match the two data sources, and values were absent in the Simply-C data or the Agency data, respectively, this led to records not being found in either data source, thereby resulting in the high record omission and record surplus rates.
- The professional encounter record omission and surplus rates were 6.2 percent and 7.3 percent, respectively. Both rates were higher than the 5.0 percent threshold. HSAG was unable to identify any pattern(s) for the discrepancy.

Data Element Completeness and Accuracy

Institutional Encounters

Table E-2 displays Simply-C's data element omission, surplus, absent, and accuracy rates for the institutional encounters. Lower rates indicate better performance for element omission and surplus indicators. For the element absent indicator, lower or higher rates do not indicate better or worse performance. Higher rates indicate better performance for element accuracy. Rates considered as better performance are shaded green; worse rates are shaded pink.

Table E-2—Data Element Completeness and Accuracy for Institutional Encounters

Key Data Elements	Element Omission	Element Surplus	Element Absent	Element Accuracy
Enrollee ID	0.0%	0.0%	0.0%	>99.9%
Header Service From Date	0.0%	0.0%	0.0%	99.8%
Header Service To Date	0.0%	0.0%	0.0%	98.4%
Detail Service From Date	0.0%	0.0%	0.0%	100%

Key Data Elements	Element Omission	Element Surplus	Element Absent	Element Accuracy
Detail Service To Date	0.0%	0.0%	0.0%	100%
Admission Date	0.0%	0.0%	84.5%	100%
Billing Provider NPI	<0.1%	0.0%	0.0%	93.0%
Attending Provider NPI	1.1%	0.0%	<0.1%	97.7%
Referring Provider NPI	1.8%	0.0%	98.1%	96.0%
Primary Diagnosis Code	0.0%	0.0%	0.0%	93.7%
Secondary Diagnosis Code[2]	14.8%	0.0%	0.2%	3.3%
Procedure Code (CPT/HCPCS)	<0.1%	0.0%	22.2%	100%
Procedure Code Modifier[3]	0.6%	0.0%	86.0%	98.4%
Units of Service	0.0%	0.0%	0.0%	98.9%
Surgical Procedure Code[4]	0.0%	3.3%	89.9%	0.0%
NDC	14.2%	0.0%	85.8%	NA[1]
Revenue Code	0.0%	0.0%	0.0%	99.9%
DRG	1.3%	1.1%	86.4%	46.6%
Header Paid Amount	0.0%	0.0%	0.0%	99.5%
Detail Paid Amount	0.0%	0.0%	0.0%	>99.9%

[1] NA indicates not applicable since no records had values present in both data sources to assess accuracy.
[2] All submitted secondary diagnosis codes were ordered and concatenated as a single data element.
[3] All submitted procedure code modifiers were ordered and concatenated as a single data element.
[4] All submitted surgical procedure codes were ordered and concatenated as a single data element.

Key Findings: Table E-2

- The data element omission and surplus rates were generally low (i.e., at or lower than 5.0 percent) for most evaluated institutional encounter data elements, except for the *Secondary Diagnosis Code* and *NDC* data elements.
  - The omission rate for the *Secondary Diagnosis Code* data element was high at 14.8 percent. Upon further examination, HSAG found that in the Simply-C-submitted data, the secondary diagnosis codes had the same diagnosis code value as the *Primary Diagnosis Code* for approximately 58.6 percent of the records.
  - The omission rate for the *NDC* data element was also high at 14.2 percent. Further investigation revealed that the Agency-submitted encounters did not have any *NDC* values populated.
- The accuracy rates for most evaluated institutional encounter data elements were high (i.e., at or above 95.0 percent), except for the *Billing Provider NPI*, *Primary Diagnosis Code*, *Secondary Diagnosis Code*, *Surgical Procedure Code*, and *DRG* data elements.
  - The accuracy rate for the *Billing Provider NPI* data element was low at 93.0 percent. This discrepancy could be attributed to the Agency and Simply-C using different versions of the PML

when submitting the *Billing Provider NPI* values, resulting in different NPI values for the same provider information.

– The accuracy rate for the *Primary Diagnosis Code* data element was similarly low at 93.7 percent. Among records that did not match for this field, all *Primary Diagnosis Code* values submitted by the Agency were found in the *Secondary Diagnosis Code* field in the Simply-C-submitted encounters.

– Following reassessment, the accuracy rate for the *Secondary Diagnosis Code* data element was very low at 3.3 percent. Simply-C indicated that it inserted the admitting diagnosis code as the primary diagnosis code, while the Agency removed the admitting diagnosis code. Consequently, Simply-C's *Secondary Diagnosis Code* field contained the primary diagnosis code, resulting in omissions, as the Agency did not have an additional diagnosis code.

– After reassessment, the accuracy rate for the *Surgical Procedure Code* data element was very low at 0.0 percent. Simply-C noted that it provided all surgical procedure codes except the primary surgical code, which likely led to the discrepancies between the Agency- and Simply-C-submitted encounters.

– The accuracy rate for the *DRG* data element was low at 46.6 percent. Further investigation revealed that among records wherein discrepancies occurred, the Agency-submitted *DRG* values consisted of three digits, while the Simply-C-submitted *DRG* values consisted of four digits for approximately 86.5 percent of the records. Additionally, the first three digits of the Simply-C-submitted *DRG* values matched the Agency-submitted *DRG* values for approximately 85.1 percent of the records that did not match the *DRG* data element.

Professional Encounters

Table E-3 displays Simply-C's data element omission, surplus, absent, and accuracy rates for the professional encounters. Lower rates indicate better performance for element omission and surplus indicators. For the element absent indicator, lower or higher rates do not indicate better or worse performance. Higher rates indicate better performance for element accuracy. Rates considered as better performance are shaded green; worse rates are shaded pink.

Table E-3—Data Element Completeness and Accuracy for Professional Encounters

Key Data Elements	Element Omission	Element Surplus	Element Absent	Element Accuracy
Enrollee ID	0.0%	0.0%	0.0%	>99.9%
Header Service From Date	0.0%	0.0%	0.0%	99.9%
Header Service To Date	0.0%	0.0%	0.0%	99.9%
Detail Service From Date	0.0%	0.0%	0.0%	>99.9%
Detail Service To Date	0.0%	0.0%	0.0%	>99.9%
Billing Provider NPI	0.0%	0.0%	<0.1%	95.1%
Rendering Provider NPI	<0.1%	0.0%	<0.1%	97.7%
Referring Provider NPI	2.0%	0.0%	48.6%	95.9%

Key Data Elements	Element Omission	Element Surplus	Element Absent	Element Accuracy
Primary Diagnosis Code	<0.1%	0.0%	0.0%	86.7%
Secondary Diagnosis Code[2]	20.1%	0.0%	35.5%	69.6%
Procedure Code (CPT/HCPCS)	<0.1%	0.0%	0.0%	>99.9%
Procedure Code Modifier[3]	0.1%	<0.1%	66.7%	99.4%
Units of Service	0.0%	0.0%	0.0%	88.9%
NDC	3.1%	0.0%	96.9%	NA[1]
Header Paid Amount	0.0%	0.0%	0.0%	97.9%
Detail Paid Amount	0.0%	0.0%	0.0%	>99.9%

[1] NA indicates not applicable since no records had values present in both data sources to assess accuracy.
[2] All submitted secondary diagnosis codes were ordered and concatenated as a single data element.
[3] All submitted procedure code modifiers were ordered and concatenated as a single data element.

Key Findings: Table E-3

- The data element omission and surplus rates were generally low (i.e., at or lower than 5.0 percent) for most evaluated professional encounter data elements, except for the *Secondary Diagnosis Code* data element.
  - The omission rate for the *Secondary Diagnosis Code* data element was high at 20.1 percent. Among records that only had the *Secondary Diagnosis Code* data element populated in the Simply-C-submitted data, the *Primary Diagnosis Code* values did not align between the Simply-C-submitted encounters and the Agency-submitted encounters for approximately 52.1 percent of the records.
    - o Of those 52.1 percent of the encounters wherein the *Primary Diagnosis Code* values for the Agency and Simply-C differed, the *Secondary Diagnosis Code* values submitted by Simply-C contained the *Primary Diagnosis Code* values submitted by the Agency.
- The accuracy rates for most evaluated professional encounter data elements were high (i.e., at or above 95.0 percent), except for the *Primary Diagnosis Code*, *Secondary Diagnosis Code*, and *Units of Service* data elements.
  - The accuracy rate for the *Primary Diagnosis Code* data element was low at 86.7 percent. Among records wherein discrepancies occurred in this field, the *Primary Diagnosis Code* values submitted by the Agency were contained in the *Secondary Diagnosis Code* field in the Simply-C-submitted encounters for 99.2 percent of the records.
  - The accuracy rate for the *Secondary Diagnosis Code* data element was low at 69.6 percent. Further investigation revealed that among records with discrepancies, the Simply-C-submitted data had more secondary diagnosis codes populated compared to the Agency-submitted data for 97.3 percent of the records.
  - The accuracy rate for the *Units of Service* data element was low at 88.9 percent. Further investigation revealed that among records with discrepancies, approximately 81.0 percent were Agency-denied encounters. Of these Agency-denied encounters, the Agency populated zero values for *Units of Service*, while Simply-C populated non-zero values for the field.

The image below presents Simply-C's investigative efforts and explanations from the data discrepancy report.

Table	Discrepancy Item	SIM-C's Investigation Efforts and Explanations
Table 1	Institutional encounter record omission rate (16.0 percent) and record surplus rate (12.0 percent)	For the omission: In most cases the missing encounters are either Plan denied, Voided or Denied by the agency. For the surplus: In most cases the missing encounters are Plan denied.
Table 1	Professional encounter record omission rate (6.2 percent) and record surplus rate (7.3 percent)	For the omission: In most cases the missing encounters are either Plan denied, Voided or Denied by the agency. For the surplus: In most cases the missing encounters are Plan denied. In some instances, we have also noticed if the encounter was submitted multiple times, the agency would report the first transaction ICN instead of the most recent ICN, that could be another reason for the data discrepancy.

Table	Discrepancy Item	SIM-C's Investigation Efforts and Explanations
Table 2	*Billing Provider NPI* accuracy rate (93.0 percent) for institutional encounter data	In all of the cases where there is a difference in NPI, we were able to review the claims, encounters, and PML at the time of submission and the NPI used on the report is the NPI the provider submitted on the claim and the NPI submitted on the encounter. The NPI the agency reported is the current NPI on the PML Medicaid ID for the provider where the provider has made changes to their PML between the time of the claim and submission to current reporting. The agency appears to be using the NPI based on today's current Medicaid ID versus the NPI reported at the time of the claim/encounter.
Table 2	*Primary Diagnosis Code* accuracy rate (93.7 percent) for institutional encounter data	In all the cases, it seems that SIM-C inserted the admitting diagnosis code as the first diagnosis code record (noted in the Dx1 column), whereas the agency seems to insert the principal diagnosis code in the DX1 column. For a more accurate match, HSAG could compare the Dx2 column of SIM-C to the DX1 column of the agency.
Table 2	*Secondary Diagnosis Code* omission rate (14.8 percent) and accuracy rate (2.7 percent) for institutional encounter data	In all the cases, it appears that the Plan data included the admitting diagnosis code as the first diagnosis code record, where the agency omitting this diagnosis code from the data.
Table 2	*Surgical Procedure Code* accuracy rate (<0.1 percent) for institutional encounter data	SIM-C provided all Surgical Procedure codes except the primary Surgical code, we suspect this is what is causing the variance between the two datasets.
Table 2	*NDC* omission rate (14.2 percent) for institutional encounter data	SIM-C submitted all NDC info as received by the providers, we are not able to determine why its omitted from the agency dataset.
Table 2	*DRG* accuracy rate (46.6 percent) for institutional encounter data	In most cases, SIM-C provided a 4-digit DRG instead of a 3-digit one due to the version of DRG system SIM-C is using, the 4th digit represents the severity of illness. To improve the matching logic, HSAG can compare the first three digits of SIM-C's DRG to the Agency's DRG. Additionally, there have been a few scenarios where it was identified that SIM-C reported the DRG submitted by the provider in the encounter, instead of the computed DRG that SIM-C used to adjudicate the claim.
Table 3	*Primary Diagnosis Code* accuracy rate (86.7 percent) for professional encounter data	In all the cases, it seems that SIM-C inserted the primary diagnosis code as the first diagnosis code record (noted in the Dx1 column), whereas the agency seems to insert one of the other secondary diagnosis code in the DX1 column.

Table	Discrepancy Item	SIM-C's Investigation Efforts and Explanations
Table 3	*Secondary Diagnosis Code* omission rate (20.1 percent) and accuracy rate (69.6 percent) for professional encounter data	In all the cases, it appears that the Plan data included the admitting diagnosis code as the first diagnosis code record, where the agency omitting this diagnosis code from the data.
Table 3	*Units of Service* accuracy rate (88.9 percent) for professional encounter data	SIM-C reported two units in the Professional audit file: the Billed unit, which represents how the provider billed the units, and the Paid unit, which shows how SIM-C paid for the units. However, it was noticed that in most situations, HSAG compared the SIM-C Paid units to the Agency's Billed units.

Medical Record Review Results

Medical Record Procurement Status

Table E-4 shows the medical record submission status for Simply-C, detailing the number of medical records requested as well as the number and percentage of medical records submitted by Simply-C as indicated in its submitted tracking sheets.

Table E-4—Medical Record Procurement Status for Simply-C

Plan	Number of Records Requested	Number of Records Submitted		Records Submitted With Second Date of Service	
		Number	Percent	Number	Percent
SIM-C	263	251	95.4%	167	66.5%
All Plans	**2,104**	**1,787**	**84.9%**	**824**	**46.1%**

Table E-5 highlights the key reasons Simply-C did not submit medical records.

Table E-5—Reasons for Missing Medical Records for Simply-C

Non-Submission Reason	Count	Percent
Other.	9	75.0%
Enrollee is not a patient of this practice.	2	16.7%
Practice is permanently closed.	1	8.3%
Total	**12**	**100%**

Encounter Data Completeness

Table E-6 displays the record omission and encounter data omission rates for each key data element for Simply-C. Using the *Diagnosis Code* data element as an example, the list below shows the specifications for the denominator and numerator:

- Medical record omission rate: The denominator for the medical record omission rate is the number of diagnosis codes identified in the Agency's electronic encounter data, and the numerator is the number of diagnosis codes identified in the Agency's electronic encounter data that were not found (i.e., not supported) in the enrollees' medical records.

  In the analysis, when no medical records were submitted for a sampled date of service, all other key data elements associated with that date of service were treated as medical record omissions.

- Encounter data omission rate: The denominator for the encounter data omission rate is the number of diagnosis codes identified in the enrollees' medical records, and the numerator is the number of

diagnosis codes from the enrollees' medical records that were not found in the Agency's electronic encounter data.

Table E-6—Encounter Data Completeness Summary for Simply-C

Data Element	Medical Record Omission*			Encounter Data Omission*		
	Denominator	Numerator	Rate	Denominator	Numerator	Rate
Date of Service	277	2	0.7%	300	25	8.3%
Diagnosis Code	770	20	2.6%	779	29	3.7%
Procedure Code	450	18	4.0%	541	109	20.1%
Procedure Code Modifier	159	28	17.6%	137	6	4.4%

* Lower rates indicate better performance.

Encounter Data Accuracy

Table E-7 displays the element accuracy rates for each key data element and the all-element accuracy rate for Simply-C. Encounter data accuracy was evaluated for dates of service that existed in both the Agency's encounter data and the submitted medical records, with values present in both data sources for the evaluated data element. Using the *Diagnosis Code* data element as an example, the list below shows the specifications for the denominator and the numerator:

- Denominator: The denominator for the accuracy rate is the number of diagnosis codes associated with dates of service that existed in both the Agency's electronic encounter data and the enrollees' medical records. In addition, both data sources had values for the *Diagnosis Code* data element.
- Numerator: The numerator for the accuracy rate is the number of diagnosis codes in the denominator that were correctly coded based on the enrollees' medical records submitted for the study.

Table E-7—Encounter Data Accuracy Summary for Simply-C

Data Element	Denominator	Numerator	Rate	Error Type Percentages
Diagnosis Code	750	746	99.5%	Inaccurate Code: 100%
Procedure Code	432	425	98.4%	Inaccurate Code: 100%
Procedure Code Modifier	131	131	100%	—
All-Element Accuracy	275	200	72.7%	—

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

Conclusions

Based on results from the comparative analysis and MRR, HSAG identified the areas of strength and opportunities for improvement. Along with each opportunity for improvement, HSAG has also provided a recommendation to help target improvement efforts.

Table E-8 highlights Simply-C's strengths, weaknesses, and recommendations, as applicable, that were identified from the EDV study. The green highlighted rows represent descriptions associated with the comparative analysis, while the non-highlighted rows pertain to the MRR descriptions.

Strengths and Weaknesses

Table E-8—Strengths and Weaknesses for Simply-C

Strength/ Weakness	Description
+	**Strength:** For both sets of encounters, a high level of element completeness (i.e., low element omission and surplus rates) was generally exhibited among encounters that could be matched between the Agency-submitted encounters and Simply-C-submitted encounters.
+	**Strength:** Encounter data omission rates were generally low for *Date of Service*, *Diagnosis Code*, and *Procedure Code Modifier* data elements, ranging from 3.7 percent (*Diagnosis Code*) to 8.3 percent (*Date of Service*). Medical record omission rates were also low for *Date of Service*, *Diagnosis Code*, and *Procedure Code* data elements, ranging from 0.7 percent (*Date of Service*) to 4.0 percent (*Procedure Code*) These findings indicate that the encounter data were supported by the medical records, allowing for confident future analyses. Additionally, they suggest that providers are accurately documenting and submitting encounters to Simply-C.
+	**Strength:** When key data elements were present in both the encounter data and the enrollees' medical records and were evaluated independently, the data element values were found to be accurate, each with rates of at least 98 percent.
−	**Weakness:** The record omission and surplus rates for both sets of encounters were above 5.0 percent. Based on Simply-C's response, the discrepancies were attributed to denied claims. The plan also noted that encounters were submitted multiple times, wherein the Agency would report the encounter as the first transaction ICN instead of the most recent ICN. **Recommendation:** HSAG recommends that Simply-C adhere to the requirements for submitting encounters as adjustments. This ensures that each transaction is correctly processed and recorded.
−	**Weakness:** For both sets of encounters, the element accuracy rates for several key data elements were low. **Recommendation:** HSAG recommends that Simply-C work with the Agency to identify the root cause for these discrepancies.
−	**Weakness:** 17.6 percent of procedure code modifiers identified in the encounter data were not supported by enrollees' medical records, while 20.1 percent of procedure codes within enrollees' medical records were not found in the encounter data. **Recommendation:** Simply-C should investigate the root cause of these omissions and consider performing periodic MRRs of submitted claims to verify appropriate coding and data completeness. Findings from these reviews should be shared with providers through periodic education and training regarding encounter data submissions, medical record documentation, and coding practices.

This appendix contains results and findings for Sunshine State Health Plan, Inc. (Sunshine-C/SUN-C).

Comparative Analysis Results

This section presents Sunshine-C's results for the comparative analysis. Based on study findings from the comparative analysis component, HSAG initiated follow-up activities designed to assist the plans in addressing the major encounter data issues identified from this study. First, HSAG distributed the data discrepancy reports to each plan, which included a description of key issues for the plans to review. Additionally, samples of encounters highlighting identified issues were also distributed to further assist the plans in reviewing the results.

Second, the plans were required to submit written responses on any required resolutions or follow-up items identified and noted in the discrepancy reports. These next sections present the comparative analysis results as reported in the data discrepancy report for Sunshine-C. Additionally, the images of Sunshine-C's responses based on its investigative efforts on the example discrepant records are provided later in this appendix.

During the comparative analysis, HSAG found that the detail line numbers between the Agency and Sunshine-C-submitted encounters did not appear to align accordingly within the same claim for institutional encounters. The misalignment led to lower accuracy rates of several key elements (e.g., *Procedure Code (CPT/HCPCS)*, *Units of Service*, *Revenue Code*, *Detail Paid Amount*). To address this issue, HSAG developed an alternative match key that did not include the detail line number, allowing for a more accurate comparison between the Agency- and plan-submitted data. Additionally, to ensure a thorough assessment of the completeness and accuracy of diagnoses and surgical procedure codes, the Agency provided HSAG with supplementary diagnosis and surgical procedure codes for the institutional encounters. HSAG incorporated these supplementary data and reassessed the encounter data completeness and accuracy using the alternative match key.

Record Completeness

There are two aspects of record completeness—record omission and record surplus. A record omission occurs when a record is present in the plan's submitted data files for the study but not in the Agency's data files. Similarly, a record surplus occurs when a record is present in the Agency's data files but not in the plan's submitted data files. The Agency encounter data are considered relatively complete when the record omission and record surplus rates are low.

Table F-1 displays the percentage of records present in the Sunshine-C-submitted files that were not found in the Agency-submitted files (record omission) and the percentage of records present in the Agency-submitted files but not present in the Sunshine-C-submitted files (record surplus) for the institutional and

professional encounters. **Lower rates indicate better performance for both record omission and record surplus**. Rates considered as better performance are shaded green; worse rates are shaded pink.

Table F-1—Record Omission and Surplus

Encounter Type	Omission (Missing in the Agency's Files)	Surplus (Missing in SUN-C's Files)
Institutional Encounters	49.2%	9.0%
Professional Encounters	55.7%	32.6%

Key Findings: Table F-1

- After reassessment, the record omission and surplus rates for institutional encounters were 49.2 percent and 9.0 percent, respectively.

- The record omission and surplus rates for professional encounters were 55.7 percent and 32.6 percent, respectively, exceeding the 5.0 percent threshold. HSAG noted that Sunshine-C submitted a substantially larger volume of professional encounters than the Agency submitted, which likely contributed to the high record omission rate. Specifically, Sunshine-C's professional encounter volume was approximately 55 million, whereas the Agency's volume was approximately 36 million.

Data Element Completeness and Accuracy

Institutional Encounters

Table F-2 displays Sunshine-C's data element omission, surplus, absent, and accuracy rates for the institutional encounters. Lower rates indicate better performance for element omission and surplus indicators. For the element absent indicator, lower or higher rates do not indicate better or worse performance. Higher rates indicate better performance for element accuracy. Rates considered as better performance are shaded green; worse rates are shaded pink.

Table F-2—Data Element Completeness and Accuracy for Institutional Encounters

Key Data Elements	Element Omission	Element Surplus	Element Absent	Element Accuracy
Enrollee ID	0.0%	0.0%	0.0%	>99.9%
Header Service From Date	0.0%	0.0%	0.0%	99.9%
Header Service To Date	0.0%	0.0%	0.0%	99.9%
Detail Service From Date	0.0%	0.0%	0.0%	99.2%
Detail Service To Date	0.0%	0.0%	0.0%	99.2%
Admission Date	0.2%	<0.1%	83.1%	100%
Billing Provider NPI	0.0%	0.0%	0.0%	91.5%
Attending Provider NPI	1.3%	<0.1%	<0.1%	98.7%

Key Data Elements	Element Omission	Element Surplus	Element Absent	Element Accuracy
Referring Provider NPI	3.4%	0.0%	96.6%	NA[1]
Primary Diagnosis Code	0.0%	<0.1%	0.0%	>99.9%
Secondary Diagnosis Code[2]	<0.1%	<0.1%	15.8%	99.8%
Procedure Code (CPT/HCPCS)	0.0%	0.0%	24.4%	100%
Procedure Code Modifier[3]	0.7%	0.1%	85.4%	98.5%
Units of Service	0.0%	0.0%	0.0%	71.0%
Surgical Procedure Code[4]	0.0%	0.0%	88.7%	98.9%
NDC	12.4%	0.0%	87.6%	NA[1]
Revenue Code	0.0%	0.0%	0.0%	100%
DRG	0.5%	0.1%	83.6%	0.2%
Header Paid Amount	0.0%	0.0%	0.0%	90.0%
Detail Paid Amount	0.0%	0.0%	0.0%	95.5%

[1] NA indicates not applicable since no records had values present in both data sources to assess accuracy.
[2] All submitted secondary diagnosis codes were ordered and concatenated as a single data element.
[3] All submitted procedure code modifiers were ordered and concatenated as a single data element.
[4] All submitted surgical procedure codes were ordered and concatenated as a single data element.

Key Findings: Table F-2

- Following reassessment, the data element omission and surplus rates were generally low (i.e., at or lower than 5.0 percent) for most evaluated institutional encounter data elements, except for the *NDC* data element.
  - The omission rate for the *NDC* data element was high at 12.4 percent. Further investigation revealed that the Agency-submitted encounters did not have any *NDC* values populated.
- After reassessment, the accuracy rates for some of the evaluated institutional encounter data elements were high (i.e., at or above 95.0 percent), except for the *Billing Provider NPI*, *Units of Service*, *DRG*, and *Header Paid Amount* data elements.
  - The accuracy rate for the *Billing Provider NPI* data element was low at 91.5 percent.
  - The accuracy rate for the *Secondary Diagnosis Code* data element substantially improved from 54.7 percent to 99.8 percent, and it was no longer a major concern.
  - The accuracy rate for the *Units of Service* data element was low at 71.0 percent.
  - The accuracy rate for the *Surgical Procedure Code* data element substantially improved from 79.6 percent to 98.9 percent, and it was no longer a major concern.
  - The accuracy rate for the *DRG* data element was low at 0.2 percent., and Sunshine-C indicated that the discrepancies were due to an incorrect query that selected the last three digits of the DRG values instead of the first three digits.
  - The accuracy rate for the *Header Paid Amount* data element was low at 90.0 percent.

Professional Encounters

Table F-3 displays Sunshine-C's data element omission, surplus, absent, and accuracy rates for the professional encounters. Lower rates indicate better performance for element omission and surplus indicators. For the element absent indicator, lower or higher rates do not indicate better or worse performance. Higher rates indicate better performance for element accuracy. Rates considered as better performance are shaded green; worse rates are shaded pink.

Table F-3—Data Element Completeness and Accuracy for Professional Encounters

Key Data Elements	Element Omission	Element Surplus	Element Absent	Element Accuracy
Enrollee ID	0.0%	0.0%	0.0%	99.7%
Header Service From Date	0.0%	0.0%	0.0%	94.8%
Header Service To Date	0.0%	0.0%	0.0%	93.2%
Detail Service From Date	0.0%	0.0%	0.0%	>99.9%
Detail Service To Date	0.0%	0.0%	0.0%	>99.9%
Billing Provider NPI	<0.1%	<0.1%	<0.1%	29.2%
Rendering Provider NPI	<0.1%	0.5%	<0.1%	97.5%
Referring Provider NPI	14.5%	0.0%	41.0%	92.1%
Primary Diagnosis Code	<0.1%	0.0%	0.0%	99.0%
Secondary Diagnosis Code[2]	5.8%	<0.1%	47.3%	77.3%
Procedure Code (CPT/HCPCS)	<0.1%	0.0%	<0.1%	>99.9%
Procedure Code Modifier[3]	0.4%	<0.1%	62.0%	98.7%
Units of Service	0.0%	<0.1%	0.0%	88.0%
NDC	2.5%	0.0%	97.5%	NA[1]
Header Paid Amount	0.0%	0.0%	0.0%	47.8%
Detail Paid Amount	0.0%	0.0%	0.0%	92.1%

[1] NA indicates not applicable since no records had values present in both data sources to assess accuracy.
[2] All submitted secondary diagnosis codes were ordered and concatenated as a single data element.
[3] All submitted procedure code modifiers were ordered and concatenated as a single data element.

Key Findings: Table F-3

- The data element omission and surplus rates were generally low (i.e., at or lower than 5.0 percent) for most evaluated professional encounter data elements, except for the *Referring Provider NPI* and *Secondary Diagnosis Code* data elements.
  - The omission rate for the *Referring Provider NPI* data element was high at 14.5 percent, and HSAG was unable to identify any pattern(s) contributing to the discrepancy.
  - The omission rate for the *Secondary Diagnosis Code* data element was relatively high at 5.8 percent, and HSAG was unable to identify any pattern(s) contributing to the discrepancy.

- The accuracy rates for some of the evaluated professional encounter data elements were high (i.e., at or above 95.0 percent), except for the *Header Service From Date*, *Header Service To Date*, *Billing Provider NPI*, *Referring Provider NPI*, *Secondary Diagnosis Code*, *Units of Service*, *Header Paid Amount*, and *Detail Paid Amount* data elements.
  - The accuracy rates for both the *Header Service From Date* and *Header Service To Date* data elements were relatively low at 94.8 percent and 93.2 percent, respectively. Further investigation revealed that among records that did not match for these data elements, Sunshine-C's *Header Service From Date* and *Header Service To Date* were on two different dates, indicating date spans, while the Agency's *Header Service From Date* and *Header Service To Date* were on the same date for more than 97.0 percent of the records. Additionally, among this subset of records, the Agency-submitted *Header Service From/To Date* values were identical to the *Detail Service From/To Date* values. Please refer to Table F-4 for a visual representation of these discrepancies.

Table F-4—Illustration of Discrepancies for Header Dates of Service

Header Service From Date (Plan)	Header Service To Date (Plan)	Header Service From Date (The Agency)	Header Service To Date (The Agency)	Detail Service From Date	Detail Service To Date
01/03/2022	01/17/2022	01/17/2022	01/17/2022	01/17/2022	01/17/2022
01/05/2022	01/08/2022	01/05/2022	01/05/2022	01/05/2022	01/05/2022
03/08/2022	03/11/2022	03/11/2022	03/11/2022	03/11/2022	03/11/2022
04/21/2022	04/26/2022	04/21/2022	04/21/2022	04/21/2022	04/21/2022

  - The accuracy rate for the *Billing Provider NPI* data element was low at 29.2 percent, and HSAG was unable to identify any pattern(s) contributing to the discrepancy.
  - The accuracy rate for the *Referring Provider NPI* data element was low at 92.1 percent, and HSAG was unable to identify any pattern(s) contributing to the discrepancy.
  - The accuracy rate for the *Secondary Diagnosis Code* data element was low at 77.3 percent. Further investigation revealed that among records with discrepancies, the Sunshine-C-submitted data had more secondary diagnosis codes populated compared to the Agency-submitted data for 95.1 percent of the records.
  - The accuracy rate for the *Units of Service* data element was low at 88.0 percent. Further investigation revealed that among records with discrepancies, the Agency populated zero values for *Units of Service*, while Sunshine-C populated non-zero values for approximately 54.5 percent of the records. Additionally, among records wherein the data element did not match, Sunshine-C populated negative values for the *Units of Service* field for approximately 41.9 percent of the records, and 54.5 percent of those records had a value of "7" for the *Claim Frequency Type Code*.
  - The accuracy rate for the *Header Paid Amount* data element was low at 47.8 percent, and HSAG was unable to identify any pattern(s) for the discrepancy.
  - The accuracy rate for the *Detail Paid Amount* data element was low at 92.1 percent. Further investigation revealed that Sunshine-C's *Detail Paid Amount* values had the same magnitude as the Agency-submitted values, but Sunshine-C's values were negative for approximately 25.3 percent of the records.

The image below presents Sunshine-C's investigative efforts and explanations from the data discrepancy report.

Table	Discrepancy Item	SUN-C's Investigation Efforts and Explanations
Table 1	Institutional encounter record omission rate (50.4 percent) and record surplus rate (11.2 percent)	**Omission:** Submitted data ties with financials having encounter status as ACCEPTED, REJECTED, SUBMITTTED. A few claims had Scrubbed Status which should not have been included. **Surplus:** Sample data are found in the submitted Files. Submitted data ties with financials having encounter status as ACCEPTED, REJECTED, SUBMITTTED. A few claims had Scrubbed Status which should not have been included.
Table 1	Professional encounter record omission rate (55.7 percent) and record surplus rate (32.6 percent)	**Omission:** Sample data are found in the submitted Files. Submitted Data ties with financials having encounter status as ACCEPTED, REJECTED, SUBMITTTED. A few claims had Scrubbed Status which should not have been included. **Surplus:** Submitted Data ties with financials having encounter status as ACCEPTED, REJECTED, SUBMITTTED. A few claims had Scrubbed Status which should not have been included.
Table 2	*Billing Provider NPI* accuracy rate (91.4 percent) for institutional encounter data	Submitted BillProvNPI agrees with Encounter Claim Supplement
Table 2	*Secondary Diagnosis Code* accuracy rate (54.7 percent) for institutional encounter data	Submitted file had a greater number of Secondary DX when compared to Agency. Per Attachment FL 2023-24 EDV Plan Data Submission Requirements.pdf we are allowed to submit you to 25 diagnoses
Table 2	*Procedure Code (CPT/HCPCS)* accuracy rate (83.7 percent) for institutional encounter data	Submitted Procedure codes aligns with our financials

Table	Discrepancy Item	SUN-C's Investigation Efforts and Explanations
Table 2	*Units of Service* accuracy rate (67.2 percent) for institutional encounter data	Agency Unit counts are showing a 0 on "Rejected Claims" whereas submitted data is showing "Billed Units". There are also instances where erroneous unit were picked up.
Table 2	*Surgical Procedure Code* accuracy rate (79.6 percent) for institutional encounter data	Submitted file had more than the number of Surgery Codes compared to Agency. Per Attachment FL 2023-24 EDV Plan Data Submission Requirements.pdf we are allowed to submit you to 25 Surgery Codes
Table 2	*NDC* omission rate (11.8 percent) for institutional encounter data	Submitted data had NDC populated per Encounter Service Supplement data
Table 2	*Revenue Code* accuracy rate (91.0 percent) for institutional encounter data	Submitted Revenue codes aligns with our financials
Table 2	*DRG* accuracy rate (0.2 percent) for institutional encounter data	Erroneous substring on final output - substr(A.DRG,2,3) as DRG instead of the first three text (substr(A.DRG,1,3)
Table 2	*Header Paid Amount* accuracy rate (90.0 percent) for institutional encounter data	Amount reflected in Agency is net of Interest while submitted data is just Paid Amt.
Table 2	*Detail Paid Amount* accuracy rate (91.5 percent) for institutional encounter data	Amount reflected in Agency is net of Interest while submitted data is just Paid Amt.
Table 4	*Header Service From Date* accuracy rate (94.8 percent) for professional encounter data	Submitted data correctly populates the HFDOS of the claim while the agency is picking up HLDOS for HFDOS
Table 4	*Header Service To Date* accuracy rate (93.2 percent) for professional encounter data	Submitted data correctly populates the HLDOS of the claim while the agency is picking up LLDOS for HLDOS
Table 4	*Billing Provider NPI* accuracy rate (29.2 percent) for professional encounter data	Submitted BillProvNPI agrees with Encounter Claim Supplement
Table 4	*Referring Provider NPI* omission rate (14.5 percent) and accuracy rate (92.1 percent) for professional encounter data	Submitted ReferProvNPI agrees with Encounter Claim Supplement
Table 4	*Secondary Diagnosis Code* omission rate (5.8 percent) and accuracy rate (77.3 percent) for professional encounter data	**Omission:** Submitted file had more than the number of Secondary DX compared to Agency. Per Attachment FL 2023-24 EDV Plan Data Submission Requirements.pdf we are allowed to submit u to 25 diagnoses **Accuracy:** Submitted file had more than the number of Secondary DX compared to Agency. Per Attachment FL 2023-24 EDV Plan Data Submission Requirements.pdf we are allowed to submit u to 25 diagnoses

Table	Discrepancy Item	SUN-C's Investigation Efforts and Explanations
Table 4	*Units of Service* accuracy rate (88.0 percent) for professional encounter data	Agency Unit counts are showing a 0 on "Rejected Claims" whereas submitted data is showing "Billed Units". There are also instances where erroneous unit were picked up.
Table 4	*Header Paid Amount* accuracy rate (47.8 percent) for professional encounter data	Amount reflected in Agency is net of Interest while submitted data is just Paid Amt
Table 4	*Detail Paid Amount* accuracy rate (92.1 percent) for professional encounter data	Amount reflected in Agency is net of Interest while submitted data is just Paid Amt

Medical Record Review Results

Medical Record Procurement Status

Table F-5 shows the medical record submission status for Sunshine-C, detailing the number of medical records requested as well as the number and percentage of medical records submitted by Sunshine-C as indicated in its submitted tracking sheets.

Table F-5—Medical Record Procurement Status for Sunshine-C

Plan	Number of Records Requested	Number of Records Submitted		Records Submitted With Second Date of Service	
		Number	Percent	Number	Percent
SUN-C	263	161	61.2%	74	46.0%
All Plans	**2,104**	**1,787**	**84.9%**	**824**	**46.1%**

Table F-6 highlights the key reasons Sunshine-C did not submit medical records.

Table F-6—Reasons for Missing Medical Records for Sunshine-C

Non-Submission Reason	Count	Percent
Medical record not located at this practice.	49	48.0%
Non-responsive provider or provider did not respond in a timely manner.	30	29.4%
Enrollee is not a patient of this practice.	9	8.8%
Practice is permanently closed.	7	6.9%
Enrollee is a patient of this practice; however, no documentation available for DOS.	6	5.9%
Other.	1	1.0%
Total	**102**	**100%**

Encounter Data Completeness

Table F-7 displays the record omission and encounter data omission rates for each key data element for Sunshine-C. Using the *Diagnosis Code* data element as an example, the list below shows the specifications for the denominator and numerator:

- Medical record omission rate: The denominator for the medical record omission rate is the number of diagnosis codes identified in the Agency's electronic encounter data, and the numerator is the number of diagnosis codes identified in the Agency's electronic encounter data that were not found (i.e., not supported) in the enrollees' medical records.

In the analysis, when no medical records were submitted for a sampled date of service, all other key data elements associated with that date of service were treated as medical record omissions.

- Encounter data omission rate: The denominator for the encounter data omission rate is the number of diagnosis codes identified in the enrollees' medical records, and the numerator is the number of diagnosis codes from the enrollees' medical records that were not found in the Agency's electronic encounter data.

Table F-7—Encounter Data Completeness Summary for Sunshine-C

Data Element	Medical Record Omission*			Encounter Data Omission*		
	Denominator	Numerator	Rate	Denominator	Numerator	Rate
Date of Service	299	84	28.1%	228	13	5.7%
Diagnosis Code	790	222	28.1%	596	28	4.7%
Procedure Code	625	208	33.3%	462	45	9.7%
Procedure Code Modifier	194	92	47.4%	104	2	1.9%

* Lower rates indicate better performance.

Encounter Data Accuracy

Table F-8 displays the element accuracy rates for each key data element and the all-element accuracy rate for Sunshine-C. Encounter data accuracy was evaluated for dates of service that existed in both the Agency's encounter data and the submitted medical records, with values present in both data sources for the evaluated data element. Using the *Diagnosis Code* data element as an example, the list below shows the specifications for the denominator and the numerator:

- Denominator: The denominator for the accuracy rate is the number of diagnosis codes associated with dates of service that existed in both the Agency's electronic encounter data and the enrollees' medical records. In addition, both data sources had values for the *Diagnosis Code* data element.

- Numerator: The numerator for the accuracy rate is the number of diagnosis codes in the denominator that were correctly coded based on the enrollees' medical records submitted for the study.

Table F-8—Encounter Data Accuracy Summary for Sunshine-C

Data Element	Denominator	Numerator	Rate	Error Type Percentages
Diagnosis Code	568	565	99.5%	Inaccurate Code: 100%
Procedure Code	417	409	98.1%	Inaccurate Code: 100%
Procedure Code Modifier	102	102	100%	—
All-Element Accuracy	215	154	71.6%	—

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

Conclusions

Based on results from the comparative analysis and MRR, HSAG identified the areas of strength and opportunities for improvement. Along with each opportunity for improvement, HSAG has also provided a recommendation to help target improvement efforts.

Table F-9 highlights Sunshine-C's strengths, weaknesses, and recommendations, as applicable, that were identified from the EDV study. The green highlighted rows represent descriptions associated with the comparative analysis, while the non-highlighted rows pertain to the MRR descriptions.

Strengths and Weaknesses

Table F-9—Strengths and Weaknesses for Sunshine-C

Strength/ Weakness	Description
➕	**Strength:** For both sets of encounters, a high level of element completeness (i.e., low element omission and surplus rates) was generally exhibited among encounters that could be matched between the Agency-submitted encounters and Sunshine-C-submitted encounters.
➕	**Strength:** When key data elements were present in both the encounter data and the enrollees' medical records and were evaluated independently, the data element values were found to be accurate, each with rates of at least 98 percent.
➖	**Weakness:** The record omission and surplus rates for both sets of encounters were above 5.0 percent. **Recommendation:** HSAG recommends that Sunshine-C work with the Agency to determine the root cause of the omission and surplus record rates exceeding 5.0 percent.
➖	**Weakness:** For both sets of encounters, the element accuracy rates for several key data elements were low. **Recommendation:** HSAG recommends that Sunshine-C work with the Agency to identify the root cause for the discrepancies.
➖	**Weakness:** Sunshine-C submitted only 61.2 percent of sampled medical records. Of the medical records not submitted, approximately 48 percent were not submitted due to the record not being located at the specified practice, and 29.4 percent of records were not submitted due to non-responsive providers. **Recommendation:** Sunshine-C should investigate its provider information to determine the location in which services were provided and consequently encounters were submitted to the Agency. Sunshine-C should also emphasize to contracted providers the importance of the MRR for EDV activities. Contracted providers should be held accountable for responding to medical record requests for auditing, inspection, and oversight. HSAG recommends that Sunshine-C consider strengthening and/or enforcing its contract requirements with providers in providing the requested documentation to ensure future data requests can be met.
➖	**Weakness:** Sunshine-C had a high rate of non-submitted medical records (38.8 percent), which caused a high rate of medical record omissions across all analyses of key data elements. Of all dates of services in the encounter data, 28.1 percent were not documented in the medical record.

Strength/ Weakness	Description
	This number was 28.1 percent for diagnosis codes, 33.3 percent for procedure codes, and 47.4 percent for procedure code modifiers.
	Recommendation: For instances wherein there was a medical record omission for a submitted medical record, Sunshine-C 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 shared with providers through periodic education and training regarding encounter data submissions, medical record documentation, and coding practices.

This appendix contains results and findings for UnitedHealthcare of Florida, Inc. (United-C/UNI-C).

Comparative Analysis Results

This section presents United-C's results for the comparative analysis. Based on study findings from the comparative analysis component, HSAG initiated follow-up activities designed to assist the plans in addressing the major encounter data issues identified from this study. First, HSAG distributed the data discrepancy reports to each plan, which included a description of key issues for the plans to review. Additionally, samples of encounters highlighting identified issues were also distributed to further assist the plans in reviewing the results.

Second, the plans were required to submit written responses on any required resolutions or follow-up items identified and noted in the discrepancy reports. These next sections present the comparative analysis results as reported in the data discrepancy report for United-C. Additionally, the images of United-C's responses based on its investigative efforts on the example discrepant records are provided later in this appendix.

During the comparative analysis, HSAG found that the detail line numbers between the Agency- and United-C-submitted encounters did not appear to align accordingly within the same claim for both professional and institutional encounters. The misalignment led to lower accuracy rates of several key elements (e.g., *Procedure Code (CPT/HCPCS)*, *Units of Service*, *Revenue Code*, *Detail Paid Amount*). To address this issue, HSAG developed an alternative match key that did not include the detail line number, allowing for a more accurate comparison between the Agency- and plan-submitted data. Additionally, to ensure a thorough assessment of the completeness and accuracy of diagnoses and surgical procedure codes, the Agency provided HSAG with supplementary diagnosis and surgical procedure codes for the institutional encounters. HSAG incorporated these supplementary data and reassessed the encounter data completeness and accuracy using the alternative match key.

Record Completeness

There are two aspects of record completeness—record omission and record surplus. A record omission occurs when a record is present in the plan's submitted data files for the study but not in the Agency's data files. Similarly, a record surplus occurs when a record is present in the Agency's data files but not in the plan's submitted data files. The Agency encounter data are considered relatively complete when the record omission and record surplus rates are low.

Table G-1 displays the percentage of records present in the United-C-submitted files that were not found in the Agency-submitted files (record omission) and the percentage of records present in the Agency-submitted files but not present in the United-C-submitted files (record surplus) for the institutional and

professional encounters. **Lower rates indicate better performance for both record omission and record surplus**. Rates considered as better performance are shaded green; worse rates are shaded pink.

Table G-1—Record Omission and Surplus

Encounter Type	Omission (Missing in the Agency's Files)	Surplus (Missing in UNI-C's Files)
Institutional Encounters	1.5%	2.2%
Professional Encounters	4.5%	1.0%

Key Findings: Table G-1

- Following reassessment, HSAG noted no major issues regarding the record omission and surplus rates for institutional encounters, with rates of 1.5 percent and 2.2 percent, respectively.

- Following reassessment, HSAG noted no major issues regarding the record omission and surplus rates for professional encounters, with rates of 4.5 percent and 1.0 percent, respectively.

Data Element Completeness and Accuracy

Institutional Encounters

Table G-2 displays United-C's data element omission, surplus, absent, and accuracy rates for the institutional encounters. Lower rates indicate better performance for element omission and surplus indicators. For the element absent indicator, lower or higher rates do not indicate better or worse performance. Higher rates indicate better performance for element accuracy. Rates considered as better performance are shaded green; worse rates are shaded pink.

Table G-2—Data Element Completeness and Accuracy for Institutional Encounters

Key Data Elements	Element Omission	Element Surplus	Element Absent	Element Accuracy
Enrollee ID	0.0%	0.0%	0.0%	>99.9%
Header Service From Date	0.0%	0.0%	0.0%	99.8%
Header Service To Date	0.0%	0.0%	0.0%	97.7%
Detail Service From Date	0.0%	0.0%	0.0%	92.0%
Detail Service To Date	0.0%	0.0%	0.0%	88.2%
Admission Date	0.2%	0.0%	66.0%	100%
Billing Provider NPI	0.0%	0.0%	0.0%	86.4%
Attending Provider NPI	1.0%	0.0%	<0.1%	98.5%
Referring Provider NPI	2.7%	0.0%	97.0%	96.9%
Primary Diagnosis Code	0.0%	0.0%	0.0%	100%
Secondary Diagnosis Code[2]	<0.1%	0.0%	13.9%	99.9%

Key Data Elements	Element Omission	Element Surplus	Element Absent	Element Accuracy
Procedure Code (CPT/HCPCS)	0.0%	0.0%	35.0%	100%
Procedure Code Modifier[3]	0.6%	0.0%	85.1%	99.5%
Units of Service	0.0%	0.0%	0.0%	87.7%
Surgical Procedure Code[4]	<0.1%	0.0%	77.2%	100%
NDC	4.4%	0.0%	95.6%	NA[1]
Revenue Code	0.0%	0.0%	0.0%	100%
DRG	1.7%	1.4%	68.4%	99.6%
Header Paid Amount	0.0%	0.0%	0.0%	99.2%
Detail Paid Amount	0.0%	0.0%	0.0%	99.9%

[1] NA indicates not applicable since no records had values present in both data sources to assess accuracy.
[2] All submitted secondary diagnosis codes were ordered and concatenated as a single data element.
[3] All submitted procedure code modifiers were ordered and concatenated as a single data element.
[4] All submitted surgical procedure codes were ordered and concatenated as a single data element.

Key Findings: Table G-2

- Following reassessment, the data element omission and surplus rates remained generally low (i.e., at or lower than 5.0 percent) for all evaluated institutional encounter data elements, with no major concerns noted.

- After reassessment, the accuracy rates for some of the evaluated institutional encounter data elements were high (i.e., at or above 95.0 percent), except for the *Detail Service From Date*, *Detail Service To Date*, *Billing Provider NPI*, and *Units of Service* data elements.
  - The accuracy rates for the *Detail Service From Date* and *Detail Service To Date* data element were low at 92.0 percent and 88.2 percent, respectively.
  - The accuracy rate for the *Billing Provider NPI* data element was low at 86.4 percent.
  - The accuracy rate for the *Secondary Diagnosis Code* data element substantially improved from 53.4 percent to 99.9 percent, and it is no longer a major concern.
  - The accuracy rate for the *Surgical Procedure Code* data element substantially improved from 78.4 percent to 100 percent, and it is no longer a major concern.
  - The accuracy rate for the *Units of Service* data element was low at 87.7 percent.

Professional Encounters

Table G-3 displays United-C's data element omission, surplus, absent, and accuracy rates for the professional encounters. Lower rates indicate better performance for element omission and surplus indicators. For the element absent indicator, lower or higher rates do not indicate better or worse performance. Higher rates indicate better performance for element accuracy. Rates considered as better performance are shaded green; worse rates are shaded pink.

Table G-3—Data Element Completeness and Accuracy for Professional Encounters

Key Data Elements	Element Omission	Element Surplus	Element Absent	Element Accuracy
Enrollee ID	0.0%	0.0%	0.0%	>99.9%
Header Service From Date	0.0%	0.0%	0.0%	99.9%
Header Service To Date	0.0%	0.0%	0.0%	99.9%
Detail Service From Date	0.0%	0.0%	0.0%	99.9%
Detail Service To Date	0.0%	0.0%	0.0%	99.9%
Billing Provider NPI	0.0%	0.0%	0.0%	91.4%
Rendering Provider NPI	0.0%	0.0%	0.0%	98.5%
Referring Provider NPI	2.5%	0.0%	41.8%	97.2%
Primary Diagnosis Code	<0.1%	0.0%	0.0%	90.0%
Secondary Diagnosis Code[2]	14.2%	0.0%	38.4%	68.6%
Procedure Code (CPT/HCPCS)	0.0%	0.0%	0.0%	100%
Procedure Code Modifier[3]	0.1%	0.0%	59.5%	99.1%
Units of Service	0.0%	0.0%	0.0%	80.6%
NDC	1.0%	0.0%	99.0%	NA[1]
Header Paid Amount	0.0%	0.0%	0.0%	84.6%
Detail Paid Amount	0.0%	0.0%	0.0%	90.8%

[1] NA indicates not applicable since no records had values present in both data sources to assess accuracy.
[2] All submitted secondary diagnosis codes were ordered and concatenated as a single data element.
[3] All submitted procedure code modifiers were ordered and concatenated as a single data element.

Key Findings: Table G-3

- Following reassessment, the data element omission and surplus rates were generally low (i.e., at or lower than 5.0 percent) for most evaluated professional encounter data elements, except for the *Secondary Diagnosis Code* data element.
    - The omission rate for the *Secondary Diagnosis Code* data element was high at 14.2 percent.
- After reassessment, the accuracy rates for some of the evaluated professional encounter data elements were high (i.e., at or above 95.0 percent), except for the *Billing Provider NPI*, *Primary Diagnosis Code*, *Secondary Diagnosis Code*, *Units of Service*, *Header Paid Amount*, and *Detail Paid Amount* data elements.
    - The accuracy rate for the *Billing Provider NPI* data element was low at 91.4 percent.
    - The accuracy rate for the *Primary Diagnosis Code* data element was low at 90.0 percent.
    - The accuracy rate for the *Secondary Diagnosis Code* data element was low at 68.6 percent. United-C noted in its responses that the *Secondary Diagnosis Code* values were correctly reported on both the original encounter submitted to FMMIS and the HSAG extract. The plan also noted that the Agency may have used diagnosis code pointers to assign the diagnosis codes per line.

– The accuracy rate for the *Units of Service* data element was low at 80.6 percent.

– The accuracy rate for the *Header Paid Amount* data element was low at 84.6 percent.

– The accuracy rate for the *Detail Paid Amount* data element was low at 90.8 percent.

The image below presents United-C's investigative efforts and explanations from the data discrepancy report.

Table	Discrepancy Item	UNI-C's Investigation Efforts and Explanations
Table 1	Institutional encounter record surplus rate (5.6 percent)	UHC identified the issue was created since denied lines are not submitted to the State. UHC encounter system has to re-number the detail line to go with numeric order. The sample claim file didn't re-number detail lines after the denied lines were removed.
Table 1	Professional encounter record omission rate (6.2 percent)	UHC identified those claims were voided from the State's system as the claims were reversed in the UHC claim adjudication system.
Table 2	*Detail Service From Date* accuracy rate (92.1 percent) for institutional encounter data	UHC identified the issue is caused by using statement from date instead of detail service date.
Table 2	*Detail Service To Date* accuracy rate (88.6 percent) for institutional encounter data	UHC identified the issue is caused by using statement to date instead of detail through date.
Table 2	*Billing Provider NPI* accuracy rate (86.6 percent) for institutional encounter data	UHC was not able to find the NPI listed in the field of BillProvNPI_STE. UHC validated the NPI in the field of BillProvNPI_PLAN was submitted on the outbound 837I.
Table 2	*Secondary Diagnosis Code* accuracy rate (53.4 percent) for institutional encounter data	UHC validated the *Secondary Diagnosis Code* in the field of Secondary_DX_PLAN was submitted on the outbound 837I.
Table 2	*Procedure Code (CPT/HCPCS)* accuracy rate (84.5 percent) for institutional encounter data	UHC identified the issue was created since denied lines are not submitted to the State. UHC encounter system has to re-number the detail line to go with numeric order. The sample claim file didn't re-number detail lines after the denied lines were removed. This caused the encounter and sample claim file to contain different procedure codes for specified lines.
Table 2	*Units of Service* accuracy rate (86.0 percent) for institutional encounter data	UHC identified the issue was created since denied lines are not submitted to the State. UHC encounter system has to re-number the detail line to go with numeric order. The sample claim file didn't re-number detail lines after the denied lines were removed. This caused the encounter and sample claim file to contain different units of service for specified lines.

Table	Discrepancy Item	UNI-C's Investigation Efforts and Explanations
Table 2	*Surgical Procedure Code* accuracy rate (78.4 percent) for institutional encounter data	UHC validated the *Secondary Diagnosis Code* in the field of Secondary_DX_PLAN was submitted on the outbound 837I.
Table 2	*Revenue Code* accuracy rate (92.5 percent) for institutional encounter data	UHC identified the issue was created since denied lines are not submitted to the State. UHC encounter system has to re-number the detail line to go with numeric order. The sample claim file didn't re-number detail lines after the denied lines were removed. This caused the encounter and sample claim file to contain different revenue codes for specified lines.
Table 2	*Detail Paid Amount* accuracy rate (92.8 percent) for institutional encounter data	UHC identified the issue was created since denied lines are not submitted to the State. UHC encounter system has to re-number the detail line to go with numeric order. The sample claim file didn't re-number detail lines after the denied lines were removed. This caused the encounter and sample claim file to contain different paid amounts for specified lines. UHC also identified that the state paid amount included dollars for capitated claims that were not included in the sample claims file.
Table 5	*Billing Provider NPI* accuracy rate (91.6 percent) for professional encounter data	UHC was not able to find the NPI listed in the field of BillProvNPI_STE. UHC validated the NPI in the field of BillProvNPI_PLAN was submitted on the outbound 837P.
Table 5	*Primary Diagnosis Code* accuracy rate (90.1 percent) for professional encounter data	UHC reported the diagnosis codes as reported on the claim in the sample claims file. It appears that the State data used diagnosis code pointers to assign the diagnosis codes per line.
Table 5	*Secondary Diagnosis Code* omission rate (14.1 percent) and accuracy rate (68.5 percent) for professional encounter data	UHC reported the diagnosis codes as reported on the claim in the sample claims file. It appears that the State data used diagnosis code pointers to assign the diagnosis codes per line.
Table 5	*Procedure Code (CPT/HCPCS)* accuracy rate (94.9 percent) for professional encounter data	UHC identified the issue was created since denied lines are not submitted to the State. UHC encounter system has to re-number the detail line to go with numeric order. The sample claim file didn't re-number detail lines after the denied lines were removed. This caused the encounter and sample claim file to contain different procedure codes for specified lines.
Table 5	*Units of Service* accuracy rate (80.5 percent) for professional encounter data	UHC identified the issue was created since denied lines are not submitted to the State. UHC encounter system has to re-number the detail line to go with numeric order. The sample claim file didn't re-number detail lines after the denied lines were removed. This caused the encounter and sample claim file to contain different units of service for specified lines.
Table 5	*Header Paid Amount* accuracy rate (84.4 percent) for professional encounter data	UHC identified that the state data contained dollars for capitated claims. These capitated dollars were not included in the sample claims file.

Table	Discrepancy Item	UNI-C's Investigation Efforts and Explanations
Table 5	*Detail Paid Amount* accuracy rate (86.1 percent) for professional encounter data	UHC identified the issue was created since denied lines are not submitted to the State. UHC encounter system has to re-number the detail line to go with numeric order. The sample claim file didn't re-number detail lines after the denied lines were removed. This caused the encounter and sample claim file to contain different paid amounts for specified lines. UHC also identified that the state paid amount included dollars for capitated claims that were not included in the sample claims file.

Medical Record Review Results

Medical Record Procurement Status

Table G-4 shows the medical record submission status for United-C, detailing the number of medical records requested as well as the number and percentage of medical records submitted by United-C as indicated in its submitted tracking sheets.

Table G-4—Medical Record Procurement Status for United-C

Plan	Number of Records Requested	Number of Records Submitted		Records Submitted With Second Date of Service	
		Number	Percent	Number	Percent
UNI-C	263	188	71.5%	8	4.3%
All Plans	2,104	1,787	84.9%	824	46.1%

Table G-5 highlights the key reasons United-C did not submit medical records.

Table G-5—Reasons for Missing Medical Records for United-C

Non-Submission Reason	Count	Percent
Non-responsive provider or provider did not respond in a timely manner.	66	88.0%
Medical record not located at this practice.	5	6.7%
Enrollee is a patient of this practice; however, no documentation available for DOS.	3	4.0%
Enrollee is not a patient of this practice.	1	1.3%
Total	75	100%

Encounter Data Completeness

Table G-6 displays the record omission and encounter data omission rates for each key data element for United-C. Using the *Diagnosis Code* data element as an example, the list below shows the specifications for the denominator and numerator:

- Medical record omission rate: The denominator for the medical record omission rate is the number of diagnosis codes identified in the Agency's electronic encounter data, and the numerator is the number of diagnosis codes identified in the Agency's electronic encounter data that were not found (i.e., not supported) in the enrollees' medical records.

  In the analysis, when no medical records were submitted for a sampled date of service, all other key data elements associated with that date of service were treated as medical record omissions.

- Encounter data omission rate: The denominator for the encounter data omission rate is the number of diagnosis codes identified in the enrollees' medical records, and the numerator is the number of diagnosis codes from the enrollees' medical records that were not found in the Agency's electronic encounter data.

Table G-6—Encounter Data Completeness Summary for United-C

Data Element	Medical Record Omission*			Encounter Data Omission*		
	Denominator	Numerator	Rate	Denominator	Numerator	Rate
Date of Service	283	82	29.0%	207	6	2.9%
Diagnosis Code	752	243	32.3%	539	30	5.6%
Procedure Code	527	167	31.7%	478	118	24.7%
Procedure Code Modifier	195	72	36.9%	123	0	0.0%

* Lower rates indicate better performance.

Encounter Data Accuracy

Table G-7 displays the element accuracy rates for each key data element and the all-element accuracy rate for United-C. Encounter data accuracy was evaluated for dates of service that existed in both the Agency's encounter data and the submitted medical records, with values present in both data sources for the evaluated data element. Using the *Diagnosis Code* data element as an example, the list below shows the specifications for the denominator and the numerator:

- Denominator: The denominator for the accuracy rate is the number of diagnosis codes associated with dates of service that existed in both the Agency's electronic encounter data and the enrollees' medical records. In addition, both data sources had values for the *Diagnosis Code* data element.
- Numerator: The numerator for the accuracy rate is the number of diagnosis codes in the denominator that were correctly coded based on the enrollees' medical records submitted for the study.

Table G-7—Encounter Data Accuracy Summary for United-C

Data Element	Denominator	Numerator	Rate	Error Type Percentages
Diagnosis Code	509	506	99.4%	Inaccurate Code: 100%
Procedure Code	360	340	94.4%	Inaccurate Code: 100%
Procedure Code Modifier	123	123	100%	—
All-Element Accuracy	201	126	62.7%	—

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

Conclusions

Based on results from the comparative analysis and MRR, HSAG identified the areas of strength and opportunities for improvement. Along with each opportunity for improvement, HSAG has also provided a recommendation to help target improvement efforts.

Table G-8 highlights United-C's strengths, weaknesses, and recommendations, as applicable, that were identified from the EDV study. The green highlighted rows represent descriptions associated with the comparative analysis, while the non-highlighted rows pertain to the MRR descriptions.

Strengths and Weaknesses

Table G-8—Strengths and Weaknesses for United-C

Strength/ Weakness	Description
+	**Strength:** For both sets of encounters, United-C's encounters exhibited complete data with low record omission and surplus rates.
+	**Strength:** For both sets of encounters, a high level of element completeness (i.e., low element omission and surplus rates) was exhibited among encounters that could be matched between the Agency-submitted encounters and United-C-submitted encounters.
+	**Strength:** Encounter data omission rates were generally low for *Date of Service*, *Diagnosis Code*, and *Procedure Code Modifier* data elements, ranging from 0.0 percent (*Procedure Code Modifier*) to 5.6 percent (*Diagnosis Code*). This suggests that providers are accurately documenting and submitting encounters to United-C.
+	**Strength:** When key data elements were present in both the encounter data and the enrollees' medical records and were evaluated independently, the data element values were found to be accurate, each with rates of at least 94 percent.
−	**Weakness:** For both sets of encounters, the element accuracy rates for several key data elements were low. **Recommendation:** HSAG recommends that United-C work with the Agency to identify the root cause for the discrepancies.
−	**Weakness:** United-C submitted only 71.5 percent of sampled medical records. Of the medical records not submitted, approximately 88.0 percent were not submitted due to non-responsive providers. In addition, only 4.3 percent of records were submitted with a second date of service. **Recommendation:** United-C should emphasize to contracted providers the importance of the MRR for EDV activities to contracted providers. Providers should be held accountable for responding to medical record requests for auditing, inspection, and oversight. HSAG recommends that United-C consider strengthening and/or enforcing its contract requirements with providers in providing the requested documentation to ensure future data requests can be met.
−	**Weakness:** United-C had a high rate of non-submitted medical records (28.5 percent), which caused a high rate of medical record omissions across all analyses of key data elements. Of all

Strength/ Weakness	Description
	dates of services in the encounter data, 29.0 percent were not documented in the medical record. This number was 32.3 percent for diagnosis codes, 31.7 percent for procedure codes, and 36.9 percent for procedure code modifiers.
	Recommendation: For instances wherein there was a medical record omission for a submitted medical record, United-C 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 shared with providers through periodic education and training regarding encounter data submissions, medical record documentation, and coding practices.

This appendix contains results and findings for AmeriHealth Caritas Florida, Inc. (AmeriHealth-M/AMH-M).

Comparative Analysis Results

This section presents AmeriHealth-M's results for the comparative analysis. Based on study findings from the comparative analysis component, HSAG initiated follow-up activities designed to assist the plans in addressing the major encounter data issues identified from this study. First, HSAG distributed the data discrepancy reports to each plan, which included a description of key issues for the plans to review. Additionally, samples of encounters highlighting identified issues were also distributed to further assist the plans in reviewing the results.

Second, the plans were required to submit written responses on any required resolutions or follow-up items identified and noted in the discrepancy reports. These next sections present the comparative analysis results as reported in the data discrepancy report for AmeriHealth-M. Additionally, the images of AmeriHealth-M's responses based on its investigative efforts on the example discrepant records are provided later in this appendix.

During the comparative analysis, HSAG found that the detail line numbers between the Agency- and AmeriHealth-M-submitted encounters did not appear to align accordingly within the same claim for both professional and institutional encounters. The misalignment led to lower accuracy rates of several key elements (e.g., *Procedure Code (CPT/HCPCS)*, *Units of Service*, *Revenue Code*, *Detail Paid Amount*). To address this issue, HSAG developed an alternative match key that did not include the detail line number, allowing for a more accurate comparison between the Agency- and plan-submitted data. Additionally, to ensure a thorough assessment of the completeness and accuracy of diagnoses and surgical procedure codes, the Agency provided HSAG with supplementary diagnosis and surgical procedure codes for the institutional encounters. HSAG incorporated these supplementary data and reassessed the encounter data completeness and accuracy using the alternative match key.

Record Completeness

There are two aspects of record completeness—record omission and record surplus. A record omission occurs when a record is present in the plan's submitted data files for the study but not in the Agency's data files. Similarly, a record surplus occurs when a record is present in the Agency's data files but not in the plan's submitted data files. The Agency encounter data are considered relatively complete when the record omission and record surplus rates are low.

Table H-1 displays the percentage of records present in the AmeriHealth-M-submitted files that were not found in the Agency-submitted files (record omission) and the percentage of records present in the Agency-submitted files but not present in the AmeriHealth-M-submitted files (record surplus) for the

institutional and professional encounters. **Lower rates indicate better performance for both record omission and record surplus**. Rates considered as better performance are shaded green; worse rates are shaded pink.

Table H-1—Record Omission and Surplus

Encounter Type	Omission (Missing in the Agency's Files)	Surplus (Missing in AMH-M Files)
Institutional Encounters	9.9%	4.1%
Professional Encounters	12.0%	0.4%

Key Findings: Table H-1

- Following reassessment, the record omission rate for institutional encounters remained at 9.9 percent, and the record surplus rate remained at 4.1 percent.

- After reassessment, the record omission rate for professional encounters remained at 12.0 percent, and the record surplus rate remained at 0.4 percent.

Data Element Completeness and Accuracy

Institutional Encounters

Table H-2 displays AmeriHealth-M's data element omission, surplus, absent, and accuracy rates for the institutional encounters. Lower rates indicate better performance for element omission and surplus indicators. For the element absent indicator, lower or higher rates do not indicate better or worse performance. Higher rates indicate better performance for element accuracy. Rates considered as better performance are shaded green; worse rates are shaded pink.

Table H-2—Data Element Completeness and Accuracy for Institutional Encounters

Key Data Elements	Element Omission	Element Surplus	Element Absent	Element Accuracy
Enrollee ID	0.0%	0.0%	0.0%	>99.9%
Header Service From Date	0.0%	0.0%	0.0%	99.9%
Header Service To Date	0.0%	0.0%	0.0%	99.3%
Detail Service From Date	0.0%	0.0%	0.0%	98.3%
Detail Service To Date	0.0%	0.0%	0.0%	98.3%
Admission Date	84.5%	0.0%	0.0%	100%
Billing Provider NPI	0.0%	0.0%	0.0%	91.1%
Attending Provider NPI	0.5%	0.0%	<0.1%	98.8%
Referring Provider NPI	2.8%	0.0%	97.0%	97.7%
Primary Diagnosis Code	0.0%	0.0%	0.0%	100%

Key Data Elements	Element Omission	Element Surplus	Element Absent	Element Accuracy
Secondary Diagnosis Code[2]	<0.1%	0.0%	19.5%	99.9%
Procedure Code (CPT/HCPCS)	0.0%	0.0%	23.3%	100%
Procedure Code Modifier[3]	0.7%	<0.1%	85.8%	98.5%
Units of Service	0.0%	0.0%	0.0%	56.0%
Surgical Procedure Code[4]	0.0%	0.0%	89.6%	99.8%
NDC	9.9%	0.0%	90.1%	NA[1]
Revenue Code	0.0%	0.0%	0.0%	100%
DRG	0.1%	0.3%	85.8%	98.8%
Header Paid Amount	0.0%	0.0%	0.0%	99.7%
Detail Paid Amount	0.0%	0.0%	0.0%	99.6%

[1] NA indicates not applicable since no records had values present in both data sources to assess accuracy.
[2] All submitted secondary diagnosis codes were ordered and concatenated as a single data element.
[3] All submitted procedure code modifiers were ordered and concatenated as a single data element.
[4] All submitted surgical procedure codes were ordered and concatenated as a single data element.

Key Findings: Table H-2

- Following reassessment, the data element omission and surplus rates were generally low (i.e., at or lower than 5.0 percent) for most evaluated institutional encounter data elements, except for the *Admission Date* and *NDC* data elements.
  - The omission rate for the *Admission Date* data element was very high at 84.5 percent. AmeriHealth-M indicated in its response that the plan incorrectly included the *Admission Date* values in the outpatient encounters.
  - The omission rate for the *NDC* data element was also high at 9.9 percent.
- After reassessment, the accuracy rates for most evaluated institutional encounter data elements were high (i.e., at or above 95.0 percent), except for the *Billing Provider NPI* and *Units of Service* data elements.
  - The accuracy rate for the *Billing Provider NPI* data element was low at 91.1 percent.
  - The accuracy rate for the *Secondary Diagnosis Code* data element improved substantially from 63.6 percent to 99.9 percent, and it was no longer a major concern.
  - The accuracy rate for the *Surgical Procedure Code* data element improved substantially from 82.4 percent to 99.8 percent, and it was no longer a major concern.
  - The accuracy rate for the *Units of Service* data element was low at 56.0 percent.

Professional Encounters

Table H-3 displays AmeriHealth-M's data element omission, surplus, absent, and accuracy rates for the professional encounters. Lower rates indicate better performance for element omission and surplus indicators. For the element absent indicator, lower or higher rates do not indicate better or worse

performance. Higher rates indicate better performance for element accuracy. Rates considered as better performance are shaded green; worse rates are shaded pink.

Table H-3—Data Element Completeness and Accuracy for Professional Encounters

Key Data Elements	Element Omission	Element Surplus	Element Absent	Element Accuracy
Enrollee ID	0.0%	0.0%	0.0%	99.9%
Header Service From Date	0.0%	0.0%	0.0%	99.8%
Header Service To Date	0.0%	0.0%	0.0%	99.9%
Detail Service From Date	0.0%	0.0%	0.0%	99.6%
Detail Service To Date	0.0%	0.0%	0.0%	99.6%
Billing Provider NPI	0.0%	0.0%	0.0%	92.9%
Rendering Provider NPI	0.0%	0.0%	0.0%	98.7%
Referring Provider NPI	1.4%	0.0%	49.2%	96.9%
Primary Diagnosis Code	0.0%	0.0%	0.0%	84.5%
Secondary Diagnosis Code[2]	23.0%	0.0%	34.7%	72.1%
Procedure Code (CPT/HCPCS)	0.0%	0.0%	0.0%	100%
Procedure Code Modifier[3]	0.2%	<0.1%	64.2%	99.4%
Units of Service	0.0%	0.0%	0.0%	81.5%
NDC	4.1%	0.0%	95.9%	NA[1]
Header Paid Amount	>99.9%	0.0%	0.0%	2.6%
Detail Paid Amount	>99.9%	0.0%	0.0%	9.2%

[1] NA indicates not applicable since no records had values present in both data sources to assess accuracy.
[2] All submitted secondary diagnosis codes were ordered and concatenated as a single data element.
[3] All submitted procedure code modifiers were ordered and concatenated as a single data element.

Key Findings: Table H-3

- After reassessment, the data element omission and surplus rates were generally low (i.e., at or lower than 5.0 percent) for most evaluated professional encounter data elements, except for the *Secondary Diagnosis Code*, *Header Paid Amount*, and *Detail Paid Amount* data elements.
    - The omission rate for the *Secondary Diagnosis Code* data element was high at 23.0 percent. AmeriHealth-M noted that it incorrectly submitted header diagnosis codes for professional encounters, leading to the omission of the data element.
    - The omission rates for the *Header Paid Amount* and *Detail Paid Amount* data elements were both very high, at more than 99.9 percent. AmeriHealth-M reported that the paid amount values submitted in its data file were also present in the Agency's system.
- The accuracy rates for most evaluated professional encounter data elements were high (i.e., at or above 95.0 percent), except for the *Billing Provider NPI*, *Primary Diagnosis Code*, *Secondary Diagnosis Code*, *Units of Service*, *Header Paid Amount*, and *Detail Paid Amount* data elements.

– The accuracy rate for the *Billing Provider NPI* data element was low at 92.9 percent.

– The accuracy rate for the *Primary Diagnosis Code* data element was low at 84.5 percent.

– The accuracy rate for the *Secondary Diagnosis Code* data element was low at 72.1 percent.

– The accuracy rate for the *Header Paid Amount* data element was low at 2.6 percent. Of note, the low accuracy rate for the data element was insignificant since only 627 records had this data element populated in both data sources.

– The accuracy rate for the *Detail Paid Amount* data element was low at 9.2 percent. Of note, the low accuracy rate for the data element was insignificant since only 585 records had this data element populated in both data sources.

– The accuracy rate for the *Units of Service* data element was low at 81.5 percent.

The image below presents AmeriHealth-M's investigative efforts and explanations from the data discrepancy report.

Discrepant Items	Description of the Sample Discrepancies	AMH-M's Investigation Efforts and Explanation
AMH_INSTIT_RECORD_OMISSION	This tab contains a list of sample records where institutional encounters were included in the AMH-M-submitted data files but were not included in the Agency-submitted data files for the study, i.e., record omission.	Denied claim lines that are excluded from encounter submissions were incorrectly included in the data submission files. This caused our data file to have additional lines that were not in the Agency-submitted data file.
AMH_PROF_RECORD_OMISSION	This tab contains a list of sample records where professional encounters were included in the AMH-M-submitted data files but were not included in the Agency-submitted data files for the study, i.e., record omission.	Denied claim lines that are excluded from encounter submissions were incorrectly included in the data submission files. This caused our data file to have additional lines that were not in the Agency-submitted data file.
AMH_INSTIT_ADMITDATE_OMIT	This tab contains a list of sample records where *Admission Date* values were populated in the AMH-M-submitted institutional data file but were not populated in the Agency-submitted institutional data file for the study, i.e., element omission.	Admission Date values that are excluded for Institutional Out Patient encounters were incorrectly included in the data files.
AMH_INSTIT_BILLPROVNPI_ACC	This tab contains a list of sample records illustrating the discrepancies HSAG identified between the Agency-submitted and the AMH-M-submitted institutional data for the *Billing Provider NPI* data element. The BillProvNPI_PLAN column represents the *Billing Provider NPI* values populated in the AMH-M-submitted data, while the BillProvNPI_STE column represents the *Billing Provider NPI* values populated in the Agency-submitted data for the study.	Billing NPI in the data file is what was submitted on the encounter. Further research shows that the Provider ID in the State's PML is tied to more than one NPI causing the issue.
AMH_INSTIT_SECONDARY_DX_ACC	This tab contains a list of sample records illustrating the discrepancies HSAG identified between the Agency-submitted and the AMH-M-submitted institutional data for the *Secondary Diagnosis Code* data elements. The Secondary_DX_PLAN column represents the *Secondary Diagnosis Code* values populated in the AMH-M-submitted data, while the Secondary_DX_STE column represents the *Secondary Diagnosis Code* values populated in the Agency-submitted data for the study.	We verified that Dx codes submitted on the data file are present in the state system. If the state pull is only going to take 3, should our submission match? Is there a preferred way for us to submit them in the EDV file?

AMH_INSTIT_SURG_ALL_ACC	This tab contains a list of sample records illustrating the discrepancies HSAG identified between the Agency-submitted and the AMH-M-submitted institutional data for the *Surgical Procedure Code* data elements. The SURG_ALL_PLAN column represents the *Surgical Procedure Code* values populated in the AMH-M-submitted data, while the SURG_ALL_STE column represents the *Surgical Procedure Code* values populated in the Agency-submitted data for the study.	We verified that Surgical Procedure codes submitted on the data file are present in the state system. If the state pull is only going to take 4, should our submission match? Is there a preferred way for us to submit them in the EDV file?
AMH_INSTIT_NDC_OMIT	This tab contains a list of sample records where *National Drug Code (NDC)* values were populated in the AMH-M-submitted institutional data file but were not populated in the Agency-submitted institutional data file for the study, i.e., element omission.	We verified that the National Drug Code values submitted on the data file are present in the state system.
AMH_INSTIT_MISALIGNED_ENCOUNTER	This tab contains a list of sample institutional encounters illustrating the misalignment issues noted in the data discrepancy report for AMH-M. Please note that since the example provided includes all detail lines associated with each specific selected encounter, some detail lines for the selected encounter may not exhibit any discrepancies. The following data elements' completeness and accuracy measures were negatively affected by the misalignment issue: • *Procedure Code (CPT/HCPCS)* accuracy rate • *Units of Service* accuracy rate • *Revenue Code* accuracy rate • *Detail Paid Amount* accuracy rate	Denied claim lines that are excluded from encounter submissions were incorrectly included in the data submission files. We are researching the issue and the coding fix that will be needed to correct this.

AMH_PROF_BILLPROVNPI_ACC	This tab contains a list of sample records illustrating the discrepancies HSAG identified between the Agency-submitted and the AMH-M-submitted professional data for the *Billing Provider NPI* data element. The BillProvNPI_PLAN column represents the *Billing Provider NPI* values populated in the AMH-M-submitted data, while the BillProvNPI_STE column represents the *Billing Provider NPI* values populated in the Agency-submitted data for the study.	Billing NPI in the data file is what was submitted on the encounter. Further research shows that the Provider ID in the State's PML is tied to more than one NPI causing the issue.
AMH_PROF_DX1_ACC	This tab contains a list of sample records illustrating the discrepancies HSAG identified between the Agency-submitted and the AMH-M-submitted professional data for the *Primary Diagnosis Code* data element. The DX1_PLAN column represents the *Primary Diagnosis Code* values populated in the AMH-M-submitted data, while the DX1_STE column represents the *Primary Diagnosis Code* values populated in the Agency-submitted data for the study.	We incorrectly submitted the header Dx codes for Professional claims. We are researching the issue and the coding fix that will be needed to correctly pull the professional line level Dx codes.
AMH_PROF_SECONDARY_DX_OMIT	This tab contains a list of sample records where *Secondary Diagnosis Code* values were populated in the AMH-M-submitted professional data file but were not populated in the Agency-submitted professional data file for the study, i.e., element omission.	We incorrectly submitted the header Dx codes for Professional claims. We are researching the issue and the coding fix that will be needed to correctly pull the professional line level Dx codes.
AMH_PROF_SECONDARY_DX_ACC	This tab contains a list of sample records illustrating the discrepancies HSAG identified between the Agency-submitted and the AMH-M-submitted professional data for the *Secondary Diagnosis Code* data elements. The Secondary_DX_PLAN column represents the *Secondary Diagnosis Code* values populated in the AMH-M-submitted data, while the Secondary_DX_STE column represents the *Secondary Diagnosis Code* values populated in the Agency-submitted data for the study.	We incorrectly submitted the header level Secondary Dx codes for Professional claims. We are researching the issue and the coding fix that will be needed to correctly pull the professional line level Dx codes.

AMH_PROF_AMOUNTPAID_H_OMIT	This tab contains a list of sample records where *Header Paid Amount* values were populated in the AMH-M-submitted professional data file but were not populated in the Agency-submitted professional data file for the study, i.e., element omission.	The Header Paid Amount values that we submitted on the data file match the values submitted on the encounters in the AMT* segment.
AMH_PROF_AMOUNTPAID_D_OMIT	This tab contains a list of sample records where *Detail Paid Amount* values were populated in the AMH-M-submitted professional data file but were not populated in the Agency-submitted professional data file for the study, i.e., element omission.	We verified that Detail Paid Amount amounts submitted on the data file are present in the state system.
AMH_PROF_MISALIGNED_ENCOUNTER	This tab contains a list of sample professional encounters illustrating the misalignment issues noted in the data discrepancy report for AMH-M. Please note that since the example provided includes all detail lines associated with each specific selected encounter, some detail lines for the selected encounter may not exhibit any discrepancies. The following data elements' completeness and accuracy measures were negatively affected by the misalignment issue: • *Procedure Code (CPT/HCPCS)* accuracy rate • *Units of Service* accuracy rate	Denied claim lines that are excluded from encounter submissions were incorrectly included in the data submission files. We are researching the issue and the coding fix that will be needed to correct this.

Medical Record Review Results

Medical Record Procurement Status

Table H-4 shows the medical record submission status for AmeriHealth-M, detailing the number of medical records requested as well as the number and percentage of medical records submitted by AmeriHealth-M as indicated in its submitted tracking sheets.

Table H-4—Medical Record Procurement Status for AmeriHealth-M

Plan	Number of Records Requested	Number of Records Submitted		Records Submitted With Second Date of Service	
		Number	Percent	Number	Percent
AMH-M	263	227	86.3%	143	63.0%
All Plans	**2,104**	**1,787**	**84.9%**	**824**	**46.1%**

Table H-5 highlights the key reasons AmeriHealth-M did not submit medical records.

Table H-5—Reasons for Missing Medical Records for AmeriHealth-M

Non-Submission Reason	Count	Percent
Non-responsive provider or provider did not respond in a timely manner.	36	100%
Total	**36**	**100%**

Encounter Data Completeness

Table H-6 displays the record omission and encounter data omission rates for each key data element for AmeriHealth-M. Using the *Diagnosis Code* data element as an example, the list below shows the specifications for the denominator and numerator:

- Medical record omission rate: The denominator for the medical record omission rate is the number of diagnosis codes identified in the Agency's electronic encounter data, and the numerator is the number of diagnosis codes identified in the Agency's electronic encounter data that were not found (i.e., not supported) in the enrollees' medical records.

  In the analysis, when no medical records were submitted for a sampled date of service, all other key data elements associated with that date of service were treated as medical record omissions.

- Encounter data omission rate: The denominator for the encounter data omission rate is the number of diagnosis codes identified in the enrollees' medical records, and the numerator is the number of diagnosis codes from the enrollees' medical records that were not found in the Agency's electronic encounter data.

Table H-6—Encounter Data Completeness Summary for AmeriHealth-M

Data Element	Medical Record Omission*			Encounter Data Omission*		
	Denominator	Numerator	Rate	Denominator	Numerator	Rate
Date of Service	289	0	0.0%	300	11	3.7%
Diagnosis Code	727	17	2.3%	728	18	2.5%
Procedure Code	514	40	7.8%	529	55	10.4%
Procedure Code Modifier	207	51	24.6%	160	4	2.5%

* Lower rates indicate better performance.

Encounter Data Accuracy

Table H-7 displays the element accuracy rates for each key data element and the all-element accuracy rate for AmeriHealth-M. Encounter data accuracy was evaluated for dates of service that existed in both the Agency's encounter data and the submitted medical records, with values present in both data sources for the evaluated data element. Using the *Diagnosis Code* data element as an example, the list below shows the specifications for the denominator and the numerator:

- Denominator: The denominator for the accuracy rate is the number of diagnosis codes associated with dates of service that existed in both the Agency's electronic encounter data and the enrollees' medical records. In addition, both data sources had values for the *Diagnosis Code* data element.

- Numerator: The numerator for the accuracy rate is the number of diagnosis codes in the denominator that were correctly coded based on the enrollees' medical records submitted for the study.

Table H-7—Encounter Data Accuracy Summary for AmeriHealth-M

Data Element	Denominator	Numerator	Rate	Error Type Percentages
Diagnosis Code	710	707	99.6%	Inaccurate Code: 100%
Procedure Code	474	473	99.8%	Lower Level of Service in Medical Record: 100%
Procedure Code Modifier	156	156	100%	—
All-Element Accuracy	289	217	75.1%	—

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

Conclusions

Based on results from the comparative analysis and MRR, HSAG identified the areas of strength and opportunities for improvement. Along with each opportunity for improvement, HSAG has also provided a recommendation to help target improvement efforts.

Table H-8 highlights AmeriHealth-M's strengths, weaknesses, and recommendations, as applicable, that were identified from the EDV study. The green highlighted rows represent descriptions associated with the comparative analysis, while the non-highlighted rows pertain to the MRR descriptions.

Strengths and Weaknesses

Table H-8—Strengths and Weakness for AmeriHealth-M

Strength/ Weakness	Description
+	**Strength:** For institutional encounters, a high level of element completeness (i.e., low element omission and surplus rates) was generally exhibited among encounters that could be matched between the Agency-submitted encounters and AmeriHealth-M-submitted encounters.
+	**Strength:** Encounter data omission rates were generally low for *Date of Service, Diagnosis Code,* and *Procedure Code Modifier* data elements, ranging from 2.5 percent (*Diagnosis Code* and *Procedure Code Modifier*) to 3.7 percent (*Date of Service*). Medical record omission rates were moderately low for *Date of Service, Diagnosis Code,* and *Procedure Code* data elements, ranging from 0.0 percent (*Date of Service*) to 7.8 percent (*Procedure Code*). These findings indicate that the encounter data were supported by the medical records, allowing for confident future analyses. Additionally, they suggest that providers are accurately documenting and submitting encounters to AmeriHealth-M.
+	**Strength:** When key data elements were present in both the encounter data and the enrollees' medical records and were evaluated independently, the data element values were found to be accurate, each with rates of at least 99 percent.
−	**Weakness:** The record omission rates for both sets of encounters were above 5.0 percent. Based on AmeriHealth-M's response, the plan's submission included denied claim lines to HSAG, which were excluded from its original submission to the Agency.

Strength/ Weakness	Description
	Recommendation: HSAG recommends that AmeriHealth-M work with the Agency to ensure that all plan-denied encounters are submitted in compliance with the new SMMC contract requirements. This will ensure accurate reporting and compliance with the updated guidelines.
⊖	**Weakness:** For professional encounters, the element accuracy rates for several key data elements were low.
	Recommendation: HSAG recommends that AmeriHealth-M work with the Agency to identify the root cause for the discrepancies.
⊖	**Weakness:** 86.3 percent of requested medical records were submitted. Of the medical records not submitted, 100 percent were not submitted due to non-responsive providers.
	Recommendation: AmeriHealth-M should emphasize to contracted providers the importance of the MRR for EDV activities. Providers should be held accountable for 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:** 24.6 percent of procedure code modifiers identified in the encounter data were not supported by enrollees' medical records, while 10.4 percent of procedure codes within enrollees' records were not supported by the encounter data.
	Recommendation: AmeriHealth-M should investigate the root cause of these omissions and consider performing periodic MRRs of submitted claims to verify appropriate coding and data completeness. Findings from these reviews should be shared with providers through periodic education and training regarding encounter data submissions, medical record documentation, and coding practices.

This appendix contains results and findings for South Florida Community Care Network, DBA Community Care Plan (Community Care Plan-M/CCP-M).

Comparative Analysis Results

This section presents Community Care Plan-M's results for the comparative analysis. Based on study findings from the comparative analysis component, HSAG initiated follow-up activities designed to assist the plans in addressing the major encounter data issues identified from this study. First, HSAG distributed the data discrepancy reports to each plan, which included a description of key issues for the plans to review. Additionally, samples of encounters highlighting identified issues were also distributed to further assist the plans in reviewing the results.

Second, the plans were required to submit written responses on any required resolutions or follow-up items identified and noted in the discrepancy reports. These next sections present the comparative analysis results as reported in the data discrepancy report for Community Care Plan-M. Additionally, the images of Community Care Plan-M's responses based on its investigative efforts on the example discrepant records are provided later in this appendix.

To ensure rigorous assessment of the completeness and accuracy of the encounters, the Agency provided HSAG with the supplementary diagnosis codes and surgical procedure codes for institutional encounters. HSAG then reassessed the completeness and accuracy of the *Secondary Diagnosis Code* and *Surgical Procedure Code* data elements, incorporating the Agency's supplementary data.

Record Completeness

There are two aspects of record completeness—record omission and record surplus. A record omission occurs when a record is present in the plan's submitted data files for the study but not in the Agency's data files. Similarly, a record surplus occurs when a record is present in the Agency's data files but not in the plan's submitted data files. The Agency encounter data are considered relatively complete when the record omission and record surplus rates are low.

Table I-1 displays the percentage of records present in the Community Care Plan-M-submitted files that were not found in the Agency-submitted files (record omission) and the percentage of records present in the Agency-submitted files but not present in the Community Care Plan-M-submitted files (record surplus) for the institutional and professional encounters. **Lower rates indicate better performance for both record omission and record surplus**. Rates considered as better performance are shaded green; worse rates are shaded pink.

Table I-1—Record Omission and Surplus

Encounter Type	Omission (Missing in the Agency's Files)	Surplus (Missing in CCP-M Files)
Institutional Encounters	2.6%	4.5%
Professional Encounters	0.9%	1.5%

Key Findings: Table I-1

- There were no major issues noted regarding the record omission and surplus rates for institutional encounters, with rates of 2.6 percent and 4.5 percent, respectively.

- There were no major issues noted regarding the record omission and surplus rates for professional encounters, with rates of 0.9 percent and 1.5 percent, respectively.

Data Element Completeness and Accuracy

Institutional Encounters

Table I-2 displays Community Care Plan-M's data element omission, surplus, absent, and accuracy rates for the institutional encounters. Lower rates indicate better performance for element omission and surplus indicators. For the element absent indicator, lower or higher rates do not indicate better or worse performance. Higher rates indicate better performance for element accuracy. Rates considered as better performance are shaded green; worse rates are shaded pink.

Table I-2—Data Element Completeness and Accuracy for Institutional Encounters

Key Data Elements	Element Omission	Element Surplus	Element Absent	Element Accuracy
Enrollee ID	0.0%	0.0%	0.0%	>99.9%
Header Service From Date	0.0%	0.0%	0.0%	>99.9%
Header Service To Date	0.0%	0.0%	0.0%	98.6%
Detail Service From Date	0.0%	0.0%	0.0%	90.5%
Detail Service To Date	0.0%	0.0%	0.0%	88.0%
Admission Date	0.0%	0.0%	84.3%	100%
Billing Provider NPI	0.0%	0.0%	0.0%	99.4%
Attending Provider NPI	0.6%	0.0%	<0.1%	98.2%
Referring Provider NPI	2.2%	0.0%	97.8%	95.1%
Primary Diagnosis Code	0.0%	0.0%	0.0%	100%
Secondary Diagnosis Code[2]	0.1%	0.0%	20.9%	81.7%
Procedure Code (CPT/HCPCS)	<0.1%	0.0%	23.2%	100%
Procedure Code Modifier[3]	0.7%	0.0%	86.6%	99.7%

Key Data Elements	Element Omission	Element Surplus	Element Absent	Element Accuracy
Units of Service	0.0%	0.0%	0.0%	0.0%
Surgical Procedure Code[4]	0.0%	0.0%	90.9%	100%
NDC	9.2%	0.0%	90.8%	NA[1]
Revenue Code	0.0%	0.0%	0.0%	99.9%
DRG	0.0%	13.8%	86.2%	NA[1]
Header Paid Amount	0.0%	0.0%	<0.1%	99.3%
Detail Paid Amount	0.0%	0.0%	<0.1%	100%

[1] NA indicates not applicable since no records had values present in both data sources to assess accuracy.
[2] All submitted secondary diagnosis codes were ordered and concatenated as a single data element.
[3] All submitted procedure code modifiers were ordered and concatenated as a single data element.
[4] All submitted surgical procedure codes were ordered and concatenated as a single data element.

Key Findings: Table I-2

- The data element omission and surplus rates were generally low (i.e., at or lower than 5.0 percent) for most evaluated institutional encounter data elements, except for the *NDC* and *DRG* data elements.
  - The omission rate for the *NDC* data element was high at 9.2 percent. Further investigation revealed that the Agency-submitted encounters did not have any *NDC* values populated.
  - The surplus rate for the *DRG* data element was high at 13.8 percent. Further investigation revealed that field values for the *DRG* field were missing for all institutional Community Care Plan-M-submitted encounters. Of note, this finding was previously highlighted in the file review document, and Community Care Plan-M responded that the plan intentionally left the field blank.

- After reassessment, the accuracy rates for most evaluated institutional encounter data elements were high (i.e., at or above 95.0 percent), except for the *Detail Service From Date*, *Detail Service To Date*, *Secondary Diagnosis Code*, and *Units of Service* data elements.
  - The accuracy rates for both the *Detail Service From Date* and *Detail Service To Date* data elements were low, at 90.5 percent and 88.0 percent, respectively. Further investigation revealed that records that did not match for these data elements showed disparities between the *Header Service From Date* and *Header Service To Date*, suggesting discrepancies in date spans for almost all records. While the Agency-submitted data showed detail dates of service values for the same day within these date spans, the Community Care Plan-M-submitted data indicated different dates for *Detail Service From Date* and *Detail Service To Date*, aligning with the *Header Service From Date* and *Header Service To Date* values, respectively. Please refer to Table I-3 for a visual representation of these discrepancies.

Table I-3—Illustration of Discrepancies for Detail Dates of Service

Header Service From Date	Header Service To Date	Detail Service From Date (CCP-M)	Detail Service To Date (CCP-M)	Detail Service From Date (The Agency)	Detail Service To Date (The Agency)
01/03/2022	01/31/2022	01/03/2022	01/31/2022	01/10/2022	01/10/2022
01/21/2022	01/22/2022	01/21/2022	01/22/2022	01/22/2022	01/22/2022
02/01/2022	02/26/2022	02/01/2022	02/26/2022	02/08/2022	02/08/2022
03/02/2022	03/30/2022	03/02/2022	03/30/2022	03/30/2022	03/30/2022

- After reassessment, the accuracy rate for the *Secondary Diagnosis Code* data element improved from 56.6 percent to 81.7 percent.
- The accuracy rate for the *Units of Service* data element was extremely low at 0 percent. Further investigation revealed that all Community Care Plan-M-submitted institutional encounters had invalid values for *Units of Service*, with approximately 98.5 percent of the encounters populated with "UN." Of note, this issue was previously identified in the file review document.
- The accuracy rate for the *Surgical Procedure Code* data element improved substantially from 83.6 percent to 100 percent, and it was no longer a major concern.

Professional Encounters

Table I-4 displays Community Care Plan-M's data element omission, surplus, absent, and accuracy rates for the professional encounters. Lower rates indicate better performance for element omission and surplus indicators. For the element absent indicator, lower or higher rates do not indicate better or worse performance. Higher rates indicate better performance for element accuracy. Rates considered as better performance are shaded green; worse rates are shaded pink.

Table I-4—Data Element Completeness and Accuracy for Professional Encounters

Key Data Elements	Element Omission	Element Surplus	Element Absent	Element Accuracy
Enrollee ID	0.0%	0.0%	0.0%	99.9%
Header Service From Date	0.0%	0.0%	0.0%	99.9%
Header Service To Date	0.0%	0.0%	0.0%	99.9%
Detail Service From Date	0.0%	0.0%	0.0%	91.3%
Detail Service To Date	0.0%	0.0%	0.0%	89.7%
Billing Provider NPI	0.0%	0.0%	0.0%	87.8%
Rendering Provider NPI	0.0%	<0.1%	0.0%	97.9%
Referring Provider NPI	1.1%	0.0%	50.9%	95.5%
Primary Diagnosis Code	0.0%	0.0%	0.0%	85.2%
Secondary Diagnosis Code[2]	19.8%	0.0%	31.7%	57.7%
Procedure Code (CPT/HCPCS)	<0.1%	0.0%	0.0%	>99.9%

Key Data Elements	Element Omission	Element Surplus	Element Absent	Element Accuracy
Procedure Code Modifier[3]	<0.1%	0.0%	64.5%	99.5%
Units of Service	0.0%	0.0%	0.0%	88.3%
NDC	0.3%	0.0%	99.7%	NA[1]
Header Paid Amount	<0.1%	0.0%	0.0%	99.8%
Detail Paid Amount	<0.1%	0.0%	0.0%	99.9%

[1] NA indicates not applicable since no records had values present in both data sources to assess accuracy.
[2] All submitted secondary diagnosis codes were ordered and concatenated as a single data element.
[3] All submitted procedure code modifiers were ordered and concatenated as a single data element.

Key Findings: Table I-4

- The data element omission and surplus rates were generally low (i.e., at or lower than 5.0 percent), for most evaluated professional encounter data elements, except for the *Secondary Diagnosis Code* data element.
  - The omission rate for the *Secondary Diagnosis Code* data element was notably high at 19.8 percent. Among records that only had the *Secondary Diagnosis Code* data element populated in the Community Care Plan-M-submitted data, the *Primary Diagnosis Code* values did not align between the Community Care Plan-M-submitted encounters and the Agency-submitted encounters for approximately 54.3 percent of the records.
    - o Of those 54.3 percent of encounters wherein the *Primary Diagnosis Code* values between the Agency and Community Care Plan-M differed, the *Secondary Diagnosis Code* values submitted by Community Care Plan-M contained the *Primary Diagnosis Code* values submitted by the Agency.
- The accuracy rates for most evaluated professional encounter data elements were high (i.e., at or above 95.0 percent), except for the *Detail Service From Date*, *Detail Service To Date*, *Billing Provider NPI*, *Primary Diagnosis Code*, *Secondary Diagnosis Code*, and *Units of Service* data elements.
  - The accuracy rates for both the *Detail Service From Date* and *Detail Service To Date* data elements were low at 91.3 percent and 89.7 percent, respectively. Further investigation revealed that records that did not match for these data elements showed disparities between the *Header Service From Date* and *Header Service To Date*, suggesting discrepancies in date spans for all records. While the Agency-submitted data showed almost all detail dates of service values were for the same day within these date spans, the Community Care Plan-M-submitted data indicated different dates for *Detail Service From Date* and *Detail Service To Date*, aligning with the *Header Service From Date* and *Header Service To Date* values, respectively. Please refer to Table I-3 for a visual illustration, which shows a similar scenario in the institutional encounters.
  - The accuracy rate for the *Billing Provider NPI* data element was low, at 87.8 percent. One potential cause could be attributed to the Agency and Community Care Plan-M using different versions of the PML when submitting the *Billing Provider NPI* values, resulting in different NPI values for the same provider information.

– The accuracy rate for the *Primary Diagnosis Code* data element was also low at 85.2 percent. Among records with discrepancies, all *Primary Diagnosis Code* values submitted by the Agency were found in the *Secondary Diagnosis Code* field in the Community Care Plan-M-submitted encounters.

– The accuracy rate for the *Secondary Diagnosis Code* data element was low at 57.7 percent. Upon further investigation, HSAG found that in records with discrepancies, the Community Care Plan-M-submitted data had more secondary diagnosis codes populated than the Agency-submitted data for 98.0 percent of the records.

– The accuracy rate for the *Units of Service* data element was low at 88.3 percent. Further investigation revealed that approximately 54.4 percent of the records that did not match for the *Units of Service* data element were denied encounters based on the plan data. In these cases, the Agency submitted zero values for *Units of Service*, while Community Care Plan-M submitted non-zero values for almost all denied encounters.

The image below presents Community Care Plan-M's investigative efforts and explanations from the data discrepancy report.

Table	Discrepancy Item	CCP-M's Investigation Efforts and Explanations
Table 2	*Detail Service From Date* accuracy rate (90.5 percent) for institutional encounter data	There was an error in the logic used in the submission that caused all dates for the service at the line level to default to the header date of service. Upon request CCP can resubmit the accurate line level date of service that was reported in DTP*573 per each service line.
Table 2	*Detail Service To Date* accuracy rate (88.0 percent) for institutional encounter data	There was an error in the logic used in the submission that caused all dates for the service at the line level to default to the header date of service. Upon request CCP can resubmit the accurate line level date of service that was reported in DTP*573 per each service line.
Table 2	*Secondary Diagnosis Code* accuracy rate (56.6 percent) for institutional encounter data	CCP submits than 3 if present on the Encounter; up to 12 as permitted by the X12 guide.
Table 2	*Units of Service* accuracy rate (0 percent) for institutional encounter data	This discrepancy was reported to CCP prior to final submission. A corrected version (CCP_EDVQ[1-4]_03.txt) was uploaded on Jan 4th, 2024 with the accurate value populated in Column "Units Billed".
Table 2	*Surgical Procedure Code* accuracy rate (83.6 percent) for institutional encounter data	CCP submits more than 4 if present on the Encounter; up to 12 as permitted by the X12 guide.
Table 2	*NDC* omission rate (9.2 percent) for institutional encounter data	CCP submits NDCs for Q-Codes, J-Codes, S-Codes when present on the Encounter.
Table 2	*DRG* surplus rate (13.8 percent) for institutional encounter data	CCP does not send DRG. Per the X12 guide this value would be sourced from HI:DR which is not present in the 837Is submitted to the Agency.
Table 4	*Detail Service From Date* accuracy rate (91.3 percent) for professional encounter data	There was an error in the logic used in the submission that caused all dates of service at the line level to default to the minimum date of service among all lines in the claim. Upon request CCP can resubmit the accurate line level date of service that was reported in DTP*472.
Table 4	*Detail Service To Date* accuracy rate (89.7 percent) for professional encounter data	There was an error in the logic in used the submission that caused all dates of service at the line level to default to the maximum date of service among all lines in the claim. Upon request CCP can resubmit the accurate line level date of service that was reported in DTP*472.
Table 4	*Billing Provider NPI* accuracy rate (87.8 percent) for professional encounter data	This is a true discrepancy. CCP validated the NPI on the submitted data matches the Encounters submitted to the Agency.
Table 4	*Primary Diagnosis Code* accuracy rate (85.2 percent) for professional encounter data	CCP validated that the primary diagnosis sent in field HI:ABK was included as Primary Diagnosis in the data submission.

Table	Discrepancy Item	CCP-M's Investigation Efforts and Explanations
Table 4	*Secondary Diagnosis Code* omission rate (19.8 percent) and accuracy rate (57.7 percent) for professional encounter data	CCP submits than 3 if present on the Encounter; up to 12 as permitted by the X12 guide.
Table 4	*Units of Service* accuracy rate (88.3 percent) for professional encounter data	In reviewing the samples provided, if the Agency denied a service line, the units is set to 0 while CCP sent the accurate value for units billed in 60% of the samples sent for review. The other 40% are a true discrepancy that may be attributed to re-ordering of line numbers during processing. Our analysis is inconclusive and would require validation of the CPT code and Paid Amount to determine accuracy.

Medical Record Review Results

Medical Record Procurement Status

Table I-5 shows the medical record submission status for Community Care Plan-M, detailing the number of medical records requested as well as the number and percentage of medical records submitted by Community Care Plan-M as indicated in its submitted tracking sheets.

Table I-5—Medical Record Procurement Status for Community Care Plan-M

Plan	Number of Records Requested	Number of Records Submitted		Records Submitted With Second Date of Service	
		Number	Percent	Number	Percent
CCP-M	263	232	88.2%	83	35.8%
All Plans	**2,104**	**1,787**	**84.9%**	**824**	**46.1%**

Table I-6 highlights the key reasons Community Care Plan-M did not submit medical records.

Table I-6—Reasons for Missing Medical Records for Community Care Plan-M

Non-Submission Reason	Count	Percent
Non-responsive provider or provider did not respond in a timely manner.	26	83.9%
Medical record not located at this practice.	5	16.1%
Total	**31**	**100%**

Encounter Data Completeness

Table I-7 displays the record omission and encounter data omission rates for each key data element for Community Care Plan-M. Using the *Diagnosis Code* data element as an example, the list below shows the specifications for the denominator and numerator:

- Medical record omission rate: The denominator for the medical record omission rate is the number of diagnosis codes identified in the Agency's electronic encounter data, and the numerator is the number of diagnosis codes identified in the Agency's electronic encounter data that were not found (i.e., not supported) in the enrollees' medical records.

  In the analysis, when no medical records were submitted for a sampled date of service, all other key data elements associated with that date of service were treated as medical record omissions.

- Encounter data omission rate: The denominator for the encounter data omission rate is the number of diagnosis codes identified in the enrollees' medical records, and the numerator is the number of diagnosis codes from the enrollees' medical records that were not found in the Agency's electronic encounter data.

Table I-7—Encounter Data Completeness Summary for Community Care Plan-M

Data Element	Medical Record Omission*			Encounter Data Omission*		
	Denominator	Numerator	Rate	Denominator	Numerator	Rate
Date of Service	299	0	0.0%	302	3	1.0%
Diagnosis Code	845	27	3.2%	826	8	1.0%
Procedure Code	782	65	8.3%	753	36	4.8%
Procedure Code Modifier	168	42	25.0%	133	7	5.3%

* Lower rates indicate better performance.

Encounter Data Accuracy

Table I-8 displays the element accuracy rates for each key data element and the all-element accuracy rate for Community Care Plan-M. Encounter data accuracy was evaluated for dates of service that existed in both the Agency's encounter data and the submitted medical records, with values present in both data sources for the evaluated data element. Using the *Diagnosis Code* data element as an example, the list below shows the specifications for the denominator and the numerator:

- Denominator: The denominator for the accuracy rate is the number of diagnosis codes associated with dates of service that existed in both the Agency's electronic encounter data and the enrollees' medical records. In addition, both data sources had values for the *Diagnosis Code* data element.

- Numerator: The numerator for the accuracy rate is the number of diagnosis codes in the denominator that were correctly coded based on the enrollees' medical records submitted for the study.

Table I-8—Encounter Data Accuracy Summary for Community Care Plan-M

Data Element	Denominator	Numerator	Rate	Error Type Percentages
Diagnosis Code	818	816	99.8%	Inaccurate Code: 100%
Procedure Code	717	700	97.6%	Inaccurate Code: 100%
Procedure Code Modifier	126	126	100%	—
All-Element Accuracy	299	192	64.2%	—

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

Conclusions

Based on results from the comparative analysis and MRR, HSAG identified the areas of strength and opportunities for improvement. Along with each opportunity for improvement, HSAG has also provided a recommendation to help target improvement efforts.

Table I-9 highlights Community Care Plan-M's strengths, weaknesses, and recommendations, as applicable, that were identified from the EDV study. The green highlighted rows represent descriptions associated with the comparative analysis, while the non-highlighted rows pertain to the MRR descriptions.

Strengths and Weaknesses

Table I-9—Strengths and Weaknesses for Community Care Plan-M

Strength/ Weakness	Description
➕	**Strength:** For both sets of encounters, Community Care Plan-M's encounters exhibited complete data with low record omission and surplus rates.
➕	**Strength:** For both sets of encounters, a high level of element completeness (i.e., low element omission and surplus rates) was exhibited among encounters that could be matched between the Agency-submitted encounters and Community Care Plan-M-submitted encounters.
➕	**Strength:** Encounter data omission rates were generally low across all key data elements, ranging from 1.0 percent (*Date of Service* and *Diagnosis Code*) to 5.3 percent (*Procedure Code Modifier*). Medical record omission rates were moderately low for *Date of Service, Diagnosis Code*, and *Procedure Code* data elements, ranging from 0.0 percent (*Date of Service*) to 8.3 percent (*Procedure Code*) These findings indicate that the encounter data were supported by the medical records and that future analyses using these data can be performed with confidence. Additionally, they indicate that providers are accurately documenting and submitting encounters to Community Care Plan-M.
➕	**Strength:** When key data elements were present in both the encounter data and the enrollees' medical records and were evaluated independently, the data element values were found to be accurate, each with rates of at least 97 percent.

Strength/ Weakness	Description
⊖	**Weakness:** For both sets of encounters, the element accuracy rates for several key data elements were low. **Recommendation:** HSAG recommends that Community Care Plan-M work with the Agency to identify the root cause for the discrepancies.
⊖	**Weakness:** 88.2 percent of requested medical records were submitted. Of the medical records not submitted, approximately 84 percent were not submitted due to non-responsive providers. **Recommendation:** Community Care Plan-M should emphasize to contracted providers the importance of the MRR for EDV activities. Providers should be held accountable for 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:** 25.0 percent of procedure code modifiers identified in the encounter data were not supported by enrollees' medical records. **Recommendation:** Community Care Plan-M should investigate the root cause of the omission and consider performing periodic MRRs of submitted claims to verify appropriate coding and data completeness. Findings from these reviews would then be shared with providers through periodic education and training regarding encounter data submissions, medical record documentation, and coding practices.

This appendix contains results and findings for Vivida Health (Vivida-M/VIV-M).

Comparative Analysis Results

This section presents Vivida-M's results for the comparative analysis. Based on study findings from the comparative analysis component, HSAG initiated follow-up activities designed to assist the plans in addressing the major encounter data issues identified from this study. First, HSAG distributed the data discrepancy reports to each plan, which included a description of key issues for the plans to review. Additionally, samples of encounters highlighting identified issues were also distributed to further assist the plans in reviewing the results.

Second, the plans were required to submit written responses on any required resolutions or follow-up items identified and noted in the discrepancy reports. These next sections present the comparative analysis results as reported in the data discrepancy report for Vivida-M. Additionally, the images of Vivida-M's responses based on its investigative efforts on the example discrepant records are provided later in this appendix.

To ensure rigorous assessment of the completeness and accuracy of the encounters, the Agency provided HSAG with the supplementary diagnosis codes and surgical procedure codes for institutional encounters. HSAG then reassessed the completeness and accuracy of the *Secondary Diagnosis Code* and *Surgical Procedure Code* data elements, incorporating the Agency's supplementary data.

Record Completeness

There are two aspects of record completeness—record omission and record surplus. A record omission occurs when a record is present in the plan's submitted data files for the study but not in the Agency's data files. Similarly, a record surplus occurs when a record is present in the Agency's data files but not in the plan's submitted data files. The Agency encounter data are considered relatively complete when the record omission and record surplus rates are low.

Table J-1 displays the percentage of records present in the Vivida-M-submitted files that were not found in the Agency-submitted files (record omission) and the percentage of records present in the Agency-submitted files but not present in the Vivida-M-submitted files (record surplus) for the institutional and professional encounters. **Lower rates indicate better performance for both record omission and record surplus**. Rates considered as better performance are shaded green; worse rates are shaded pink.

Table J-1—Record Omission and Surplus

Encounter Type	Omission (Missing in the Agency's Files)	Surplus (Missing in VIV-M Files)
Institutional Encounters	27.0%	31.2%
Professional Encounters	5.9%	35.9%

Key Findings: Table J-1

- The record omission and surplus rates for institutional encounters were 27.0 percent and 31.2 percent, respectively, exceeding the 5.0 percent threshold. HSAG noted that approximately 73.1 percent of the distinct *Enrollee ID* values could only be found in the Vivida-M-submitted encounters, while 81.7 percent of the distinct *Enrollee ID* values could only be found in the Agency-submitted encounters. The *Enrollee ID* discrepancies may have contributed to the high record omission and surplus rates.

- The record omission and surplus rates for professional encounters were 5.9 percent and 35.9 percent, respectively, exceeding the 5.0 percent threshold. HSAG noted that approximately 34.8 percent of the distinct *Enrollee ID* values could only be found in the Vivida-M-submitted encounters, while 90.6 percent of the distinct *Enrollee ID* values could only be found in the Agency-submitted encounters. The *Enrollee ID* discrepancies may have contributed to the high record omission and record surplus rates.

Data Element Completeness and Accuracy

Institutional Encounters

Table J-2 displays Vivida-M's data element omission, surplus, absent, and accuracy rates for the institutional encounters. Lower rates indicate better performance for element omission and surplus indicators. For the element absent indicator, lower or higher rates do not indicate better or worse performance. Higher rates indicate better performance for element accuracy. Rates considered as better performance are shaded green; worse rates are shaded pink.

Table J-2—Data Element Completeness and Accuracy for Institutional Encounters

Key Data Elements	Element Omission	Element Surplus	Element Absent	Element Accuracy
Enrollee ID	0.0%	0.0%	0.0%	100%
Header Service From Date	0.0%	0.0%	0.0%	99.7%
Header Service To Date	0.0%	0.0%	0.0%	98.3%
Detail Service From Date	0.0%	0.0%	0.0%	100%
Detail Service To Date	0.0%	0.0%	0.0%	100%
Admission Date	0.0%	0.0%	81.6%	100%
Billing Provider NPI	0.0%	0.0%	0.0%	2.0%

Key Data Elements	Element Omission	Element Surplus	Element Absent	Element Accuracy
Attending Provider NPI	6.5%	0.0%	81.8%	99.7%
Referring Provider NPI	0.0%	0.0%	100%	NA[1]
Primary Diagnosis Code	0.0%	0.0%	0.0%	99.9%
Secondary Diagnosis Code[2]	11.9%	0.0%	0.5%	11.3%
Procedure Code (CPT/HCPCS)	0.0%	0.0%	23.7%	100%
Procedure Code Modifier[3]	2.9%	0.0%	82.8%	89.4%
Units of Service	0.0%	0.0%	0.0%	81.6%
Surgical Procedure Code[4]	0.0%	0.0%	87.6%	95.9%
NDC	10.2%	0.0%	89.8%	NA[1]
Revenue Code	0.0%	0.0%	0.0%	>99.9%
DRG	1.1%	0.1%	81.8%	0.0%
Header Paid Amount	0.0%	0.0%	0.0%	98.0%
Detail Paid Amount	0.0%	0.0%	0.0%	96.9%

[1] NA indicates not applicable since no records had values present in both data sources to assess accuracy.
[2] All submitted secondary diagnosis codes were ordered and concatenated as a single data element.
[3] All submitted procedure code modifiers were ordered and concatenated as a single data element.
[4] All submitted surgical procedure codes were ordered and concatenated as a single data element.

Key Findings: Table J-2

- The data element omission and surplus rates were generally low (i.e., at or lower than 5.0 percent) for most evaluated institutional encounter data elements, except for the *Attending Provider NPI*, *Secondary Diagnosis Code*, and *NDC* data elements.
  - The omission rate for the *Attending Provider NPI* data element was relatively high at 6.5 percent, and HSAG was unable to identify any patterns for the discrepancy.
  - The omission rate for the *Secondary Diagnosis Code* data element was high at 11.9 percent. Upon further investigation, HSAG found that the secondary diagnosis codes submitted by Vivida-M contained the same diagnosis code values as the *Primary Diagnosis Code* values for approximately 69.8 percent of the records.
  - The omission rate for the *NDC* data element was high at 10.2 percent. Further investigation revealed that the Agency-submitted encounters did not have any *NDC* values populated.
- The accuracy rates for most evaluated institutional encounter data elements were high (i.e., at or above 95.0 percent), except for the *Billing Provider NPI*, *Secondary Diagnosis Code*, *Procedure Code Modifier*, *Units of Service*, and *DRG* data elements.
  - The accuracy rate for the *Billing Provider NPI* data element was very low at 2.0 percent. Of note, among records with discrepancies, approximately 82.5 percent of the *Billing Provider NPI* values in the Vivida-M-submitted data were "1003862053," while the Agency had different *Billing Provider NPI* values.

– After reassessment, the accuracy rate for the *Secondary Diagnosis Code* data element improved from 2.7 percent to 11.3 percent.

– The accuracy rate for the *Procedure Code Modifier* data element was low at 89.4 percent. Further investigation revealed that among records with discrepancies, the Vivida-M-submitted data had more procedure code modifiers populated than the Agency-submitted data for all records.

– The accuracy rate for the *Units of Service* data element was low at 81.6 percent. Further investigation showed that among records with discrepancies, the Agency populated zero values for *Units of Service*, while Vivida-M populated non-zero values for the field for approximately 98.7 percent of the records.

– After reassessment, the accuracy rate for the *Surgical Procedure Code* data element substantially improved from 80.4 percent to 95.9 percent, and it was no longer a major concern.

– The accuracy rate for the *DRG* data element was very low at 0.0 percent. Among records that did not match for the data element, all Vivida-M-submitted *DRG* values consisted of four digits with a leading zero, while the Agency-submitted *DRG* values consisted of three digits. Additionally, approximately 99.0 percent of the Vivida-M-submitted *DRG* values would match the Agency-submitted *DRG* values if the leading zeros were removed.

Professional Encounters

Table J-3 displays Vivida-M's data element omission, surplus, absent, and accuracy rates for the professional encounters. Lower rates indicate better performance for element omission and surplus indicators. For the element absent indicator, lower or higher rates do not indicate better or worse performance. Higher rates indicate better performance for element accuracy. Rates considered as better performance are shaded green; worse rates are shaded pink.

Table J-3—Data Element Completeness and Accuracy for Professional Encounters

Key Data Elements	Element Omission	Element Surplus	Element Absent	Element Accuracy
Enrollee ID	0.0%	0.0%	0.0%	>99.9%
Header Service From Date	0.0%	0.0%	0.0%	100%
Header Service To Date	0.0%	0.0%	0.0%	100%
Detail Service From Date	0.0%	0.0%	0.0%	100%
Detail Service To Date	0.0%	0.0%	0.0%	100%
Billing Provider NPI	0.0%	0.0%	0.0%	4.6%
Rendering Provider NPI	0.0%	0.0%	0.0%	76.4%
Referring Provider NPI	<0.1%	0.0%	99.5%	98.9%
Primary Diagnosis Code	0.0%	0.0%	0.0%	52.7%
Secondary Diagnosis Code[2]	18.3%	0.0%	31.4%	27.1%
Procedure Code (CPT/HCPCS)	<0.1%	0.0%	0.0%	100%

Key Data Elements	Element Omission	Element Surplus	Element Absent	Element Accuracy
Procedure Code Modifier[3]	<0.1%	0.0%	61.4%	98.3%
Units of Service	0.0%	0.0%	0.0%	69.0%
NDC	0.8%	0.0%	99.2%	NA[1]
Header Paid Amount	0.0%	0.0%	0.0%	99.0%
Detail Paid Amount	0.0%	0.0%	0.0%	96.6%

[1] NA indicates not applicable since no records had values present in both data sources to assess accuracy.
[2] All submitted secondary diagnosis codes were ordered and concatenated as a single data element.
[3] All submitted procedure code modifiers were ordered and concatenated as a single data element.

Key Findings: Table J-3

- The data element omission and surplus rates were generally low (i.e., at or lower than 5.0 percent) for most evaluated professional encounter data elements, except for the *Secondary Diagnosis Code* data element.

  – The omission rate for the *Secondary Diagnosis Code* data element was high at 18.3 percent. Among records that only had the *Secondary Diagnosis Code* data element populated in the Vivida-M-submitted data, the *Primary Diagnosis Code* values did not match between the Vivida-M-submitted encounters and the Agency-submitted encounters for approximately 70.4 percent of the records.

    o Within those 70.4 percent of encounters wherein the *Primary Diagnosis Code* values differed between the Agency and Vivida-M, the *Secondary Diagnosis Code* values submitted by Vivida-M had the same values as the *Primary Diagnosis Code* values submitted by the Agency.

- The accuracy rates for most evaluated professional encounter data elements were high (i.e., at or above 95.0 percent), except for the *Billing Provider NPI*, *Rendering Provider NPI*, *Primary Diagnosis Code*, *Secondary Diagnosis Code*, and *Units of Service* data elements.

  – The accuracy rate for the *Billing Provider NPI* data element was very low at 4.6 percent. Of note, among records with discrepancies, approximately 55.4 percent of the *Billing Provider NPI* values in the Vivida-M-submitted data were "1003406711," whereas the Agency had different *Billing Provider NPI* values.

  – The accuracy rate for the *Rendering Provider NPI* data element was low at 76.4 percent. Of note, among records with discrepancies, approximately 56.2 percent of the *Rendering Provider NPI* values in the Vivida-M-submitted data were "1003406711," while the Agency had different *Rendering Provider NPI* values.

  – The accuracy rate for the *Primary Diagnosis Code* data element was low at 52.7 percent. Among records with discrepancies, the *Primary Diagnosis Code* values submitted by the Agency were contained in the *Secondary Diagnosis Code* field in the Vivida-M-submitted encounters for approximately 99.8 percent of the records.

  – The accuracy rate for the *Secondary Diagnosis Code* data element was low at 27.1 percent. Further investigation revealed that among records with discrepancies, the *Secondary Diagnosis*

Code values submitted by Vivida-M contained the *Primary Diagnosis Code* values submitted by the Agency for approximately 93.6 percent of the records.

–   The accuracy rate for the *Units of Service* data element was low at 69.0 percent. Further investigation showed that among records with discrepancies, approximately 88.3 percent were Agency-denied encounters. Moreover, within this subset, the Agency consistently populated zero values for *Units of Service*, while Vivida-M populated non-zero values for the field.

The image below presents Vivida-M's investigative efforts and explanations from the data discrepancy report.

Table	Discrepancy Item	Vivida's Investigation Efforts and Explanations
Table 1	Institutional encounter record omission rate (27.0 percent) and record surplus rate (31.2 percent)	This was a reporting error that has since been corrected.
Table 1	Professional encounter record omission rate (5.9 percent) and record surplus rate (35.9 percent)	No discrepancy found in our review. These records match what was submitted in our encounter submissions to ACHA.

Table	Discrepancy Item	Vivida's Investigation Efforts and Explanations
Table 2	*Billing Provider NPI* accuracy rate (2.0 percent) for institutional encounter data	This was a reporting error that has since been corrected.
Table 2	*Attending Provider NPI* omission rate (6.5 percent) for institutional encounter data	This was a reporting error that has since been corrected.
Table 2	*Secondary Diagnosis Code* omission rate (11.9 percent) and accuracy rate (2.7 percent) for institutional encounter data	No discrepancy found in our review. These records match what was submitted in our encounter submissions to ACHA.
Table 2	*Procedure Code Modifier* accuracy rate (89.4 percent) for institutional encounter data	No discrepancy found in our review. These records match what was submitted in our encounter submissions to ACHA.
Table 2	*Units of Service* accuracy rate (81.6 percent) for institutional encounter data	No discrepancy found in our review. These records match what was submitted in our encounter submissions to ACHA.
Table 2	*Surgical Procedure Code* accuracy rate (80.4 percent) for institutional encounter data	No discrepancy found in our review. These records match what was submitted in our encounter submissions to ACHA.
Table 2	*NDC* omission rate (10.2 percent) for institutional encounter data	No discrepancy found in our review. These records match what was submitted in our encounter submissions to ACHA.
Table 2	*DRG* accuracy rate (0.0 percent) for institutional encounter data	This was a reporting error that has since been corrected.
Table 3	*Billing Provider NPI* accuracy rate (4.6 percent) for professional encounter data	This was a reporting error that has since been corrected.
Table 3	*Rendering Provider NPI* accuracy rate (76.4 percent) for professional encounter data	This was a reporting error that has since been corrected.
Table 3	*Primary Diagnosis Code* accuracy rate (52.7 percent) for professional encounter data	This was a reporting error that has since been corrected.
Table 3	*Secondary Diagnosis Code* omission rate (18.3 percent) and accuracy rate (27.1 percent) for professional encounter data	This was a reporting error that has since been corrected.
Table 3	*Units of Service* accuracy rate (69.0 percent) for professional encounter data	No discrepancy found in our review. These records match what was submitted in our encounter submissions to ACHA.

Conclusions

Based on results from the comparative analysis, HSAG identified the areas of strength and opportunities for improvement. Along with each opportunity for improvement, HSAG has also provided a recommendation to help target improvement efforts.

Table J-4 highlights Vivida-M's strengths, weaknesses, and recommendations, as applicable, that were identified from the EDV study. The green highlighted rows represent descriptions associated with the comparative analysis.

Strengths and Weaknesses

Table J-4—Strengths and Weaknesses for Vivida-M

Strength/ Weakness	Description
➕	**Strength:** For both sets of encounters, a high level of element completeness (i.e., low element omission and surplus rates) was generally exhibited among encounters that could be matched between the Agency-submitted encounters and Vivida-M-submitted encounters.
➖	**Weakness:** The record omission and surplus rates for both sets of encounters were above 5.0 percent. **Recommendation:** HSAG recommends that Vivida-M work with the Agency to determine the root cause of the omission and surplus records.
➖	**Weakness:** For both sets of encounters, the element accuracy rates for several key data elements were low. **Recommendation:** HSAG recommends that Vivida-M work with the Agency to identify the root cause of these discrepancies.