

Division of Health Care Financing and Policy Nevada Medicaid Managed Care

Fiscal Year 2022 Encounter Data Validation Study Report: Information Systems Review, Comparative Analysis, and Medical/Dental Record Review

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1. Executive Summary

Introduction

Accurate and complete encounter data are critical to the success of managed care program. Therefore, the Division of Health Care Financing and Policy (DHCFP), a Division of the State of Nevada, Department of Health and Human Services (DHHS), requires its contracted managed care organizations (MCOs) and its dental benefit administrator (DBA)/prepaid ambulatory health plan (PAHP) to submit high-quality encounter data. During fiscal year (FY) 2022, DHCFP contracted Health Services Advisory Group, Inc. (HSAG), to conduct an encounter data validation (EDV) study. The goal of the study was to determine the extent to which professional, institutional, pharmacy, and dental encounters submitted to DHCFP by its contracted MCOs/PAHP are complete and accurate. The EDV study included the following three MCOs and one DBA:

- Anthem Blue Cross and Blue Shield Healthcare Solutions (Anthem)
- Health Plan of Nevada (HPN)
- SilverSummit Healthplan, Inc. (SilverSummit)
- LIBERTY Dental Plan of Nevada, Inc. (LIBERTY)

Methods

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 Managed Care Plan: An Optional EQR-Related Activity,* October 2019 (CMS EQR Protocol 5), ¹⁻¹ HSAG conducted the following three core evaluation activities designed to evaluate the completeness and accuracy of DHCFP's encounter data. Together, the different activities for the specific MCOs and/or DBA, collectively referred as managed care entities (MCEs) in this report, outlined in the methodology provided a comprehensive assessment of DHCFP's encounter data submitted by each MCE. The three activities are as follows:

• Information systems (IS) review—assessment of MCEs' information systems and processes. The goal of this activity was to examine the extent to which the MCEs' IS infrastructures are likely to collect and process complete and accurate encounter data. This activity corresponds to Activity 2: Review the MCP's Capability in the CMS EQR Protocol 5.

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, October 2019. Available at: https://www.medicaid.gov/medicaid/quality-of-care/downloads/2019-eqr-protocols.pdf. Accessed on: Jul 28, 2022.



- Comparative analysis—analysis of DHCFP's electronic encounter data completeness and accuracy through a comparative analysis between DHCFP's electronic encounter data and the data extracted from the MCEs' data systems. The goal of this activity was to evaluate the extent to which encounter data in DHCFP's data warehouse are complete and accurate based on corresponding information stored in each MCE's data systems. This activity corresponds to Activity 3: Analyze Electronic Encounter Data in the CMS EOR Protocol 5.
- Medical/dental records review—analysis of DHCFP's electronic encounter data completeness and accuracy through a review of a sample of DHCFP's electronic encounter data and the associated medical/dental records. The goal of this activity was to evaluate the extent to which DHCFP's encounter data are complete and accurate when compared to information contained within the member's medical/dental records. This activity corresponds to the Activity 4: Review Medical Records in the CMS EQR Protocol 5.

In FY 2018, HSAG conducted an EDV study for two of the MCOs, **Anthem** and **HPN**, which included all three components of the EDV activities (i.e., IS review, comparative analysis, and medical record review). As such, since an IS review had already been conducted for these two MCOs, HSAG did not conduct the IS review for them in FY 2022. For **SilverSummit** and **LIBERTY**, since FY 2022 is the first year HSAG conducted the EDV study, HSAG included the IS review component of the EDV activity. Table 1-1 shows the core evaluation activities for each MCE.

MCE	IS Review	Comparative Analysis	Medical/Dental Record Review
Anthem	No	Yes	Yes
HPN	No	Yes	Yes
SilverSummit	Yes	Yes	Yes
LIBERTY	Yes	Yes	Yes

Table 1-1—Core Evaluation Activities for Each MCE

Findings

A summary of major findings from the three EDV study components is presented below.

Information Systems Review

The IS review component of the EDV study provided self-reported qualitative information from both MCEs for which HSAG conducted an IS review (i.e., **SilverSummit** and **LIBERTY**) regarding the encounter data processes related to collection, processing, and transmission of encounter data to DHCFP. The modular structure of the encounter data processing systems ensures that:

MCEs can submit data and receive feedback about accuracy, completeness, and timeliness.



- Electronic Data Interchange (EDI) file compliance and validation checks are performed on encounter data (i.e., files are in valid formats, data are checked for Health Insurance Portability and Accountability Act of 1996 [HIPAA] compliance and prepared for business rules processing).
- Data are validated against the business rules engine.
- Data analyses for program management and decision support are run.

Based on contractual requirements and DHCFP's data submission requirements (e.g., companion guides), both **SilverSummit** and **LIBERTY** demonstrated their capability to collect, process, and transmit encounter data to DHCFP, as well as develop data review and correction processes that can respond to quality issues identified by DHCFP. Additionally, **SilverSummit** also described the systems/subcontractor oversight and data remediation activities in place to ensure the completeness and accuracy of data submitted to **SilverSummit** or processed on its behalf.

Comparative Analysis

Throughout the comparative analysis section, lower rates indicate better performance for omission and surplus rates while higher rates indicate better performance for accuracy rates.

Record Completeness

HSAG evaluated the record-level data completeness of DHCFP's encounter data by investigating the record omission and record surplus rates in DHCFP's data compared to each MCE's data.

The overall omission rate for professional encounters was 5.8 percent, and the surplus rate was 1.3 percent. **Anthem**'s professional record omission rate was 10.4 percent; this high omission rate appeared generally to be due to **Anthem**-submitted files containing records that were not in their final status (i.e., the files included adjustment history records). The overall record omission and surplus rates for institutional encounters were 11.6 percent and 4.3 percent, respectively. **Anthem**'s record omission rate of 21.1 percent contributed to the higher overall omission rate compared to other encounter types. For pharmacy encounters, the overall record omission and surplus rates were 0.2 percent and 13.3 percent, respectively. All three MCOs that were part of this study consistently exhibited surplus rates greater than 10.0 percent. It appeared that DHCFP-submitted pharmacy encounters contained records that were not in their final status, resulting in those records being identified as surplus. The overall record omission and surplus rates for dental encounters were 1.8 percent and 1.0 percent, respectively. **LIBERTY**'s dental encounters and **SilverSummit**'s professional encounters exhibited the most complete data, both with record omission and surplus rates less than 2.0 percent when the two data sources (i.e., DHCFP-and MCE-submitted files) were compared.

Data Element Completeness

HSAG evaluated element-level completeness of DHCFP's encounter data by the element omission and element surplus rates for key data elements relevant to each encounter type. The overall element omission and surplus rates for professional encounters were less than 1.5 percent and less than 1.0



percent, respectively, for all key data elements with a few exceptions: *Billing Provider NPI (National Provider Identifier)* had an overall element omission rate of 3.4 percent, and *Rendering Provider NPI*, *Referring Provider NPI*, and *Secondary Diagnosis Code* each had overall surplus rates greater than 10.0 percent.

For institutional encounters, the overall element omission and surplus rates were less than 2.5 percent and less than 4.0 percent, respectively, for all key data elements except *Secondary Diagnosis Code*, and *Primary Surgical Procedure Code* data elements, which had overall surplus rates of 5.2 percent and 5.5 percent, respectively. For both of these data elements, **Anthem**'s relatively high surplus rates contributed to the high overall element surplus rates. While HSAG was unable to determine or confirm the root cause of the discrepancy, it appears that the discrepancy may have resulted from errors in extracting the data for the study.

Overall, the data element omission and surplus rates for all MCEs were 1.0 percent or less for all key data elements that were evaluated for pharmacy encounters. The data element omission and surplus rates for **LIBERTY** were less than 1.0 percent for all key data elements that were evaluated for dental encounters except *Billing Provider NPI*, with an element omission rate of 5.2 percent. Among records wherein *Billing Provider NPI* values were included in **LIBERTY**-submitted data but not in DHCFP-submitted data, more than 35.0 percent were for one NPI.

Data Element Accuracy

HSAG determined data element accuracy by comparing the values of key data elements for records with data present in both DHCFP's and the MCEs' records. Fourteen of the 16 key data elements evaluated for professional encounters had an overall accuracy rate of at least 98.0 percent. *Secondary Diagnosis Code* and *Drug Quantity* data elements exhibited lower accuracy rates (66.6 percent and 71.9 percent, respectively).

For institutional encounters, 11 of the 19 key data elements that were evaluated had an overall accuracy rate of at least 95.0 percent. Detail Service From Date, Detail Service To Date, Referring Provider NPI, Secondary Diagnosis Code, Procedure Code, Primary Surgical Procedure Code, Secondary Surgical Procedure Code, and Drug Quantity data elements exhibited lower accuracy, with rates ranging from 4.4 percent to 93.3 percent compared to all other data elements.

The pharmacy data element accuracy rates for all MCEs were at least 98.0 percent for all key data elements except **Anthem**'s *Paid Amount* data element accuracy rate, 94.6 percent.

The dental data element accuracy rates for **LIBERTY** were at least 97.0 percent for all key data elements that were evaluated. The *Billing Provider NPI* data element demonstrated the lowest data element accuracy rate, 97.6 percent, compared to other data elements evaluated for dental encounters.

All-Element Accuracy

HSAG determined all-element accuracy by evaluating the records present in both data sources with exactly the same values (missing or non-missing) for all data elements relevant to each encounter type.



Higher all-element accuracy rates indicate that the values populated in DHCFP's data warehouse were more complete and accurate for all key data elements. Both pharmacy and dental encounters had relatively high overall all-element accuracy rates (96.6 percent and 91.4 percent, respectively). In contrast, professional and institutional encounters had relatively low all-element accuracy rates (40.9 percent and 45.7 percent, respectively), which were mainly due to a few data elements with low element accuracy rates.

Medical/Dental Record Review

Encounter Data Completeness

Table 1-2 displays the medical/dental record omission and encounter data omission rates for each key data element from the medical/dental record review activity.

Table 1-2—Medical/Dental Record Review: Encounter Data Completeness Summary

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Data Flamenta		DBA				
Data Elements	Statewide	Anthem	HPN	SilverSummit	LIBERTY	
Medical Record Omission						
Date of Service	10.3%	13.4%	0.7%	40.7%	4.3%	
Diagnosis Code	13.5%	17.3%	3.6%	42.0%	NA	
Procedure Code	19.9%	21.8%	13.0%	43.3%	11.0%	
Procedure Code Modifier	32.7%	31.1%	29.3%	54.0%	NA	
Encounter Data Omission	Encounter Data Omission					
Date of Service	4.3%	4.4%	5.0%	0.7%	4.7%	
Diagnosis Code	2.7%	3.0%	2.8%	1.0%	NA	
Procedure Code	20.6%	24.3%	19.2%	12.3%	23.5%	
Procedure Code Modifier	3.2%	3.5%	3.3%	1.6%	NA	

NA indicates that the data element was not applicable for dental record review.

Omissions identified in the medical/dental records (services reported in the encounter data but not supported in the medical/dental records) and omissions in the encounter data (services documented in the medical/dental records but not reported in the encounter data) illustrate discrepancies in completeness of DHCFP's encounter data. Overall, these data were relatively complete for *Date of Service* and *Diagnosis Code* data elements when compared to the medical records. Details regarding the medical/dental encounter data completeness include:

• The dates of service within the encounter data were generally supported by the members' medical records, as evidenced by the statewide medical and dental record omission rates of 10.3 percent and 4.3 percent, respectively. However, data elements *Diagnosis Code* (13.5 percent), *Procedure Code*



- (19.9 percent for medical and 11.0 percent for dental), and *Procedure Code Modifier* (32.7 percent) within the encounter data were moderately supported by the medical/dental records.
- In contrast, the relatively low encounter data omission rates for three of the key data elements (i.e., Date of Service, Diagnosis Code, and Procedure Code Modifier) indicate that these data elements found in the members' medical records were well supported by the data found in the electronic encounter data extracted from DHCFP's data warehouse, with rates ranging from 2.7 percent (Diagnosis Code) to 4.3 percent (Date of Service). Similarly, for dental, the Date of Service data element also had a low encounter data omission rate (4.7 percent), indicating that the dates of service found in the members' dental records were well supported by the data found in DHCFP's data warehouse. However, the overall Procedure Code encounter data omission rates were relatively high for both the MCOs and the DBA, with rates of 20.6 percent and 23.5 percent, respectively.

Encounter Data Accuracy

Table 1-3 displays the element accuracy rates for each key data element and the all-element accuracy rates.

Data Elements	МСО				DBA	Statesside Funou Type
Data Elements	Statewide	Anthem	HPN	SilverSummit	LIBERTY	Statewide Error Type
Diagnosis Code	99.7%	99.6%	99.7%	99.7%	NA	Incorrect Code (100.0%); Specificity Error ¹ (0.0%)
Procedure Code	97.2%	96.6%	97.2%	99.0%	88.6%	Incorrect Code (91.6%); Lower Level of Services in Medical Records (8.4%); Higher Level of Services in Medical Records (0.0%)
Procedure Code Modifier	99.9%	100.0%	99.7%	100.0%	NA	_
All-Element Accuracy	58.6%	51.3%	63.1%	66.8%	19.0%	_

Table 1-3—Encounter Data Accuracy Summary

Overall, when key data elements were present in both DHCFP's professional encounter data and the medical records and were evaluated independently, the data elements were found to be accurate. Among the data elements evaluated, 99.7 percent of diagnosis codes, 97.2 percent of procedure codes, and 99.9 percent of procedure code modifiers present in both sources were accurate at the statewide level. However, when key data element *Procedure Code* was present in DHCFP's dental encounter data and the dental records, the data element was less accurate, with 88.6 percent accuracy rate.

NA indicates that the data element was not applicable for dental record review.

[&]quot;—" denotes that the error type analysis was not applicable to a given data element.

¹ Specificity errors occurred when the documentation supported a more specific code than was listed in DHCFP's encounter data. Specificity errors also include diagnosis codes that do not have the required fourth or fifth digit.



More than 58.0 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 members' medical records. The relatively low statewide all-element accuracy rates were caused by medical record omission, encounter data omission, and element inaccuracy from all three key data elements, with *Procedure Code* contributing the most and *Procedure Code Modifier* contributing the least. However, for dental review, only 19.0 percent of the dates of service present in both sources accurately represented the *Procedure Code* data element when compared to the members' dental records. The low all-element accuracy rate was caused by dental record omission, encounter data omission, and element inaccuracy for the data element *Procedure Code*.

Recommendations

To improve the quality of encounter data submissions from the MCEs, HSAG offers the following recommendations for each component of the EDV study to assist DHCFP and the MCEs in addressing opportunities for improvement:

Information Systems Review

- While both MCEs, SilverSummit and LIBERTY, that were reviewed have processes for
 monitoring accuracy, completeness, and timeliness of claims and encounter data prior to submissions
 to DHCFP, HSAG was unable to verify that these MCEs conducted chart review as part of their
 validation to ensure accuracy and completeness. As such, HSAG recommends that the MCEs
 conduct a standardized validation of encounter data using medical/dental record reviews.
 Additionally, DHCFP could:
 - Develop an annual process to assess the MCEs' data validation capacity and capabilities among encounters submitted to DHCFP, as well as to ensure the MCEs' accountability for claims and encounter data validation.
 - Establish validation guidelines including medical/dental records for use by the MCEs in conducting their internal validation. The guidelines may assist with improving the quality of encounter data submitted by the MCEs to DHCFP and may include, but not be limited to, record sampling, reporting requirements, and file format to guide the MCEs in conducting the internal validation.
 - Conduct evaluations of MCE annual validation activities, providing feedback to MCEs and corrective actions when appropriate.

Comparative Analysis

• The results from the comparative analysis indicated that encounters submitted by the MCEs and maintained in DHCFP's data warehouse were relatively complete and accurate when compared to data the MCEs submitted to HSAG. However, HSAG recommends that DHCFP continue its efforts



to monitor encounter data submissions and address any identified data issues with the MCEs' encounter file submissions.

- HSAG identified that the MCEs had errors in the data files extracted for the study (e.g., the *Drug Quantity* data element having the same values as the *Units of Service* data element values). HSAG recommends that the MCEs implement standard quality controls to ensure accurate data extracts from their respective systems. Through the development of standard data extraction procedures and quality control, the number of errors associated with extracted data could be reduced.
- While the comparative analysis results indicated a high degree of element completeness and accuracy for most key data elements evaluated across all encounters, the results also indicated key elements with high surplus rates (e.g., Rendering Provider NPI) and/or low accuracy rates (e.g., Secondary Diagnosis Code). These discrepancies may be related to DHCFP's internal processing and extraction of the data within its data warehouse. As such, for future EDV studies, to help improve the data requests and submissions for the study, HSAG recommends working more collaboratively with the DHCFP staff members responsible for processing encounters at the initiation of the study. This will help HSAG to better understand DHCFP's internal processing so that information can be shared with the MCEs when requesting data for the study. This will also ensure that DHCFP, HSAG, and the MCEs have a shared understanding of how data elements within an encounter type should be reported.
- HSAG recommends for future EDV studies that DHCFP consider a series of follow-up activities during the study timeline, designed to assist the MCEs in addressing and resolving encounter data issues identified from the comparative analysis component of the study. The follow-up activities could include:
 - Distribution of data discrepancy reports to the MCEs identified as having data issues, which
 include a description of key issues for the MCEs to review. Samples of encounters highlighting
 identified issues may also be distributed to further assist the MCEs in reviewing their results.
 - Conducting collaborative technical assistance sessions with the MCEs to discuss data issues identified in the study, whereby root causes of discrepancies can be determined and resolved.

Medical/Dental Record Review

- During record procurement, one MCE noted difficulties in procuring requested records from its contracted provider. To ensure MCE's contracted providers' accountability in addressing submission of medical/dental records for the purpose of auditing, inspection, and examination related to its recipients, the MCE should consider strengthening and/or enforcing its contract requirements with its providers in providing the requested documentation.
- Since the results of the medical/dental record review are dependent on the MCEs' submission of complete and accurate supporting documentation, HSAG recommends that DHCFP consider setting record submission standards to ensure the MCEs are more responsive in procuring requested records. By having MCEs submit complete and accurate documentation and records, results will be more representative of the actual documentation available.



- All MCEs should investigate the relatively high encounter data omission rate for data element *Procedure Code* and implement any changes as needed.
- The MCOs should educate their providers regarding the proper use of immunization administration procedure codes 90460, 90461, 90471, and 90472.
- Similarly, the DBA should educate their providers regarding the proper use of dental codes D0230, D0220, D0240, D1206, and D1208.
- All MCEs should consider performing periodic medical/dental record reviews of submitted claims to verify appropriate coding and data completeness. Any findings from these reviews will then be provided to providers through periodic provider education and training regarding encounter data submissions, medical/dental record documentation, and coding practices.
- DHCFP may consider developing standards for the measures included in the medical/dental record review component. For future studies, in collaboration with HSAG, DHCFP may consider developing and implementing processes to evaluate the MCEs' performance and provide results to the MCEs for initial feedback to ensure they understand the measures being evaluated and eventually the associated standards. These standards can potentially be included in DHCFP's contract with the MCEs as part of the validation of the MCEs' encounter data to assess and monitor the MCEs' performance in submitting complete and accurate data to DHCFP.



2. Overview and Methodology

Overview

Accurate and complete encounter data are critical to the success of any managed care program. State Medicaid agencies rely on the quality of encounter data submissions from contracted MCOs so as to monitor and improve quality of care, establish performance measure rates, generate accurate and reliable reports, and obtain utilization and cost information. The completeness and accuracy of these data are essential in the state's overall management and oversight of its Medicaid managed care program.

Methodology

During FY 2022, DHCFP contracted HSAG to conduct an EDV study. In alignment with the CMS EQR Protocol 5, HSAG conducted the following three core evaluation activities:

- IS review—assessment of MCEs' information systems and processes
- Comparative analysis—analysis of DHCFP's electronic encounter data completeness and accuracy through a comparative analysis between DHCFP's electronic encounter data and the data extracted from the MCEs' data systems
- Medical/dental record review—analysis of DHCFP's electronic encounter data completeness and accuracy through a comparison between DHCFP's electronic encounter data and the medical/dental records.

During FY 2022, HSAG conducted the EDV study for the following three MCOs and one DBA:

- Anthem Blue Cross and Blue Shield Healthcare Solutions (Anthem)
- Health Plan of Nevada (HPN)
- SilverSummit Healthplan, Inc. (SilverSummit)
- LIBERTY Dental Plan of Nevada, Inc. (LIBERTY)

In FY 2017–2018, HSAG conducted an EDV study for two of the MCOs, **Anthem** and **HPN**. This study included all three components of the EDV activities (i.e., IS review, comparative analysis, and medical record review). As such, since an IS review had already been conducted for these two MCEs, HSAG did not conduct an IS review for them in FY 2022. However, HSAG conducted the comparative analysis and medical record review to ensure that high-quality encounter data were being submitted and to determine if any issues identified during the FY 2017–2018 had been addressed.

Since FY 2022 was the first year HSAG conducted the EDV study for **SilverSummit** and **LIBERTY**, HSAG included the IS review component of the EDV activity for these MCEs. The IS review evaluated and determined whether these MCEs' systems can collect and report high-quality encounter data.



Concurrent with the IS review, HSAG also conducted the comparative analysis and medical/dental record review for both **SilverSummit** and **LIBERTY** to ascertain whether data submitted to DHCFP were complete and of high quality.

Information Systems Review

The IS review seeks to define how each participant in the encounter data process collects and processes encounter data such that the data flow from the MCEs to DHCFP is understood. The IS review is key to understanding whether the IS infrastructures are likely to produce complete and accurate encounter data. To ensure the collection of critical information, HSAG employed a three-stage review process that included a document review, development and fielding of a customized encounter data assessment, and follow-up with key staff members. As noted in the previous section, HSAG conducted this activity for SilverSummit and LIBERTY since HSAG had already conducted an IS review for Anthem and HPN during FY 2017–2018.

Stage 1—Document Review

HSAG initiated the EDV activity with a thorough desk review of documents related to encounter data initiatives/validation activities currently put forth by DHCFP. Documents requested for review included data dictionaries, process flow charts, data system diagrams, encounter system edits, sample rejection reports, workgroup meeting minutes, and DHCFP's current encounter data submission requirements, among others. The information obtained from this review was important for developing the targeted questionnaire to address important topics of interest to DHCFP.

Stage 2—Development and Fielding of Customized Encounter Data Assessment

To conduct a customized encounter data assessment, HSAG developed a questionnaire customized in collaboration with DHCFP to gather information and specific procedures for data processing, personnel, and data acquisition capabilities. Where applicable, this assessment also included a review of supplemental documentation regarding other data systems, including enrollment and providers. Lastly, this review included specific topics of interest to DHCFP, if any.

Stage 3—Key Informant Interviews

After reviewing the completed assessments, HSAG followed up with key MCE information technology (IT) personnel to clarify any questions from the questionnaire responses. Overall, the IS reviews allowed HSAG to document current processes and develop a thematic process map identifying critical points that impact the submission of quality encounter data. From this analysis, HSAG was able to provide actionable recommendations to the existing encounter data systems on areas for improvement or enhancement.



Comparative Analysis

HSAG conducted the comparative analysis component for all four MCEs. The goal of the comparative analysis was to evaluate the extent to which encounters submitted to DHCFP by the MCEs are complete and accurate, based on corresponding information stored in each MCE's data systems. This step corresponds to another important validation activity described in the CMS EQR Protocol 5—i.e., analyses of MCO electronic encounter data for accuracy and completeness on reporting. In this activity, HSAG developed a data requirements document requesting claims/encounter data from both DHCFP and the MCEs. A follow-up technical assistance session occurred approximately one week after distributing the data requirements document, thereby allowing the MCEs time to review and prepare their questions for the session.

HSAG used data from both DHCFP and the MCEs with dates of service from January 1, 2020, through December 31, 2020, to evaluate the accuracy and completeness of the encounter data. To ensure that the extracted data from both sources represented the same universe of encounters, the data for the MCOs targeted professional, institutional, and pharmacy encounters submitted to DHCFP on or before June 30, 2021. Similarly, the data for the DBA targeted dental encounters submitted to DHCFP on or before June 30, 2021. This anchor date allowed sufficient time for the calendar year (CY) 2020 encounters to be submitted, processed, and available for evaluation in DHCFP's data warehouse.

Once HSAG received data files from all data sources, the analytic team conducted a preliminary file review to ensure data were sufficient to conduct the evaluation. The preliminary file review included the following basic checks:

- Data extraction—Data were extracted based on the data requirements document.
- Percentage present—Required data fields are present on the file and have values in those fields.
- Percentage of valid values—The values included are the expected values (e.g., valid International Classification of Diseases, 10th Revision [ICD-10] codes in the diagnosis field).
- Evaluation of matching claim numbers—The percentage of claim numbers that matched between the data extracted from DHCFP's data warehouse and the MCEs' data submitted to HSAG.

Based on the results of the preliminary file review, HSAG generated a report that highlighted major findings requiring DHCFP and the MCEs to resubmit data, if appropriate.

Once HSAG received and processed the final set of data from DHCFP and each MCE, HSAG conducted a series of comparative analyses, which were divided into two analytic sections.

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

- The number and percentage of records present in the MCEs' submitted files but not in DHCFP's data warehouse (record omission).
- The number and percentage of records present in DHCFP's data warehouse but not in the MCEs' submitted files (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 2-1. The analyses focused on an element-level comparison for each data element.

Table 2-1—Key Data Elements for Comparative Analysis

Key Data Elements	Professional	Institutional	Pharmacy	Dental
Recipient ID	✓	√	√	√
Header Service From Date	✓	√	√	√
Header Service To Date	✓	√		√
Detail Service From Date	✓	√		√
Detail Service To Date	✓	√		√
Billing Provider Number/NPI	✓	√	√	√
Rendering Provider Number/NPI	✓			√
Referring/Prescribing/Admitting Provider Number/NPI	✓	✓	√	√
Primary Diagnosis Code	✓	√		
Secondary Diagnosis Code	✓	√		
Procedure Code (CPT/HCPCS/CDT)*	✓	√		√
Procedure Code Modifier	✓	√		
Primary Surgical Procedure Code		√		
Secondary Surgical Procedure Code		√		
Tooth Number				√
Oral Cavity Code				√
Tooth Surface (1 through 5)				√
National Drug Code (NDC)	✓	√	✓	
Drug Quantity	✓	√	✓	
Revenue Code		√		
Header Paid Amount	✓	√	√	√
Detail Paid Amount	✓	√		√

^{*}CPT = Current Procedural Terminology; HCPCS = Healthcare Common Procedure Coding System; CDT = Current Dental Terminology

For records that matched between DHCFP's and the MCEs' data, HSAG evaluated the element-level completeness based on the following metrics:

- The number and percentage of records with values present in the MCEs' submitted files but not in DHCFP's data warehouse (element omission).
- The number and percentage of records with values present in DHCFP's data warehouse but not in the MCEs' submitted files (element surplus).



Element-level accuracy was limited to those records with values present in both MCE- and DHCFP-submitted files. For each key data element, HSAG determined the number and percentage of records with the same values in both MCE- and DHCFP-submitted files (element accuracy).

Finally, for records present in both DHCFP- and MCE-submitted files, HSAG evaluated the number and percentage of records with the same values for <u>all</u> key data elements relevant to each encounter data type (all-element accuracy).

Medical/Dental Record Review

As outlined in the CMS EQR Protocol 5, medical/dental record review is a complex and resource-intensive process. Medical and clinical records are considered the "gold standard" for documenting Medicaid members' access to and quality of healthcare services.

During FY 2022, HSAG evaluated encounter data completeness and accuracy through a review of medical and dental records for physician and dental services, respectively, rendered between January 1, 2020, and December 31, 2020. This study answered the following question:

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

MedicalDentalDate of ServiceDate of ServiceDiagnosis CodeDental Procedure Code (CDT)Procedure Code (CPT/HCPCS)Procedure Code Modifier

Table 2-2—Key Data Elements for Medical and Dental Record Review

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

- Identified the eligible population and generated samples from data extracted from DHCFP's data warehouse.
- Provided technical assistance to the MCEs to support the procurement of medical/dental records from providers, as appropriate.
- Reviewed medical/dental records against DHCFP's encounter data.
- Calculated study indicators and submitted study results to DHCFP.

Study Population

To be eligible for the medical/dental record review, a member had to be continuously enrolled in the same MCE during the study period (i.e., between January 1, 2020, and December 31, 2020), and had to have at least one physician/dental visit during the study period. In addition, members with other insurance coverages were excluded from the eligible population since these members may have received services that were documented in the medical/dental records but not in DHCFP's encounter data. In this report, HSAG refers to physician and dental services as the services that met all criteria in Table 2-3.



Table 2-3—Criteria for Physician and Dental Services Included in the Study

Data Element	Criteria
Physician Services	
Provider Type	Physician, MD, Osteopath, DO
	Physician assistants
	Certified nurse practitioner
	Nurse midwife
	Podiatrist
	Indian Health Service and Tribal Clinics
	Behavioral Health Outpatient
Place of Service	Federally Qualified Health Center
	Independent Clinic
	Office
	Public Health Clinic
	Rural Health Clinic
	Urgent Care Facility
	Telehealth
Procedure Code	If all detail lines for a visit have the following procedure codes, the visit will be excluded from the study since these procedure codes are for services outside the scope of work for this study (e.g., durable medical equipment [DME], dental, and vision): • A procedure code starting with "B," "E," "D," "K," or "V" • Procedure codes between A0021 and A0999 (i.e., codes for
	 transportation services) Procedure codes between A4206 and A9999 (i.e., codes for medical and surgical supplies, miscellaneous, and investigational procedures) Procedure codes between T4521 and T4544 (i.e., codes for incontinence supplies) Procedure codes between L0112 and L4631 (i.e., codes for orthotic devices and procedures) Procedure codes between L5000 and L9900 (i.e., codes for prosthetic
	devices and procedures)
Dental Services	D (1)
Provider Type	Dentist
	Registered Dental Hygienist
	County Health Department
	Federally Qualified Health Center



Sampling Strategy

HSAG used a two-stage sampling technique to select samples based on the member enrollment and encounter data extracted from DHCFP's data warehouse. HSAG first identified all members who met the study population eligibility criteria, and then used random sampling to select 411 members²⁻¹ from the eligible population for each of the MCEs. Then, for each selected sampled member, HSAG used the SURVEYSELECT procedure in SAS®2-2 to randomly select one professional/dental visit²-3 that occurred in the study period (i.e., between January 1, 2020, and December 31, 2020). Additionally, to evaluate whether any of the dates of service were omitted from DHCFP's data warehouse, HSAG reviewed a second date of service rendered by the same provider during the review period. The providers selected the second date of service, which was closest to the selected date of service, from the medical/dental records for each sampled member. If a sampled member had no second visit with the same provider practice during the review period, HSAG evaluated only one date of service for that member. As such, the final number of services reviewed was between 411 and 822 in total for each MCE.

Since an equal number of cases were selected from each MCE, to ensure an adequate sample size when reporting rates at the MCE level, adjustments were required to calculate the statewide rates to account for population differences among the MCEs. When reporting statewide rates, HSAG weighted each MCE's raw rates based on the volume of physician/dental visits among the eligible population for each MCE. This approach ensured that no MCE was over- or underrepresented in the statewide rates.

Medical/Dental Record Procurement

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

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²⁻¹ The sample size of 411 is based on a 95 percent confidence level and a margin of error of 5 percent for potential MCE-to-MCE comparisons.

²⁻² 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.

²⁻³ To ensure that the medical/dental record review 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 purposes.



All electronic medical/dental records 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 medical/dental record review and research activities, HSAG implemented a thorough HIPAA compliance and protection program in accordance with federal regulations that included recurring training as well as policies and procedures that addressed physical security, electronic security, and day-to-day operations.

Review of Medical/Dental Records

HSAG's experienced medical/dental record reviewers were responsible for abstracting the medical/dental records. To successfully complete the study, the project lead worked with the clinical review team (CRT) beginning with the methodology phase. The CRT was involved with the tool design phase, as well as the tool testing to ensure that the abstracted data were complete and accurate. Based on the study methodology, clinical guidelines, and the tool design/testing results, the CRT drafted an abstraction instruction document specific to the study for training purposes. Concurrent with record procurement activities, the CRT trained the medical/dental record reviewers on the specific study protocols and conduct interrater reliability and rater-to-standard testing. All medical/dental record reviewers had to achieve a 95 percent accuracy rate for the training/test cases before they could review medical/dental records.

During the medical/dental record review 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 the sample cases and compared to corresponding documentation in the medical/dental record. Interrater reliability among reviewers, as well as reviewer accuracy, were evaluated regularly throughout the study. Questions and decisions raised during this evaluation process were documented in the abstraction instruction document and communicated to all reviewers in a timely manner. In addition, HSAG analysts reviewed the export files from the abstraction tool on an ongoing basis to ensure the abstraction results were complete, accurate, and consistent.

The validation of encounter data incorporates a unique two-way approach through which encounters were chosen from both the electronic encounter data and from medical/dental records and were subsequently compared with one another. Claims/encounters chosen from DHCFP's data system were compared against the medical/dental records and visit records, and the medical/dental records were compared against DHCFP's encounter data. This process allowed the study to identify services documented in the members' medical/dental records that were missing from DHCFP's system. It also identified surplus encounters present in DHCFP's data system that were not documented in the members' medical/dental records. For services in both data sources, an analysis of coding accuracy was completed. Information that existed in both data sources but that contained values that did not match were considered discrepant.



Study Indicators

Once the medical/dental record review was completed, HSAG analysts exported information collected from the electronic tool, reviewed the data, and conducted the analysis. HSAG used four study indicators to report the medical/dental record review results:

- *Medical/dental record omission rate*: the percentage of dates of service identified in the electronic encounter data that were not found in the members' medical/dental records. HSAG also calculated this rate for the other key data elements in Table 2-2.
- Encounter data omission rate: the percentage of dates of service from members' medical/dental records that were not found in the electronic encounter data. HSAG also calculated this rate for the other key data elements in Table 2-2.
- Accuracy rate of coding: 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 members' medical/dental records.
- Overall accuracy rate: the percentage of dates of service with all data elements coded correctly among all the validated dates of service from the electronic encounter data.



3. Information Systems Review Findings

SilverSummit and **LIBERTY** representatives completed the DHCFP-approved questionnaire supplied by HSAG. To support their questionnaire responses, **SilverSummit** and **LIBERTY** submitted documents with varying formats and levels of detail. **SilverSummit** reported on its professional, institutional, and pharmacy encounters while **LIBERTY** reported on its dental encounters.

Encounter Data Sources and Systems

This section of the report summarizes data sources used in the claims data to encounter data cycle, the systems in place to process the data, the systematic formatting that occurs prior to submission (if completed by a third party), and how data are verified from provider and member information.

Claims/Encounter Data Flow

Figure 3-1 shows a high-level process which outlines the path followed by an MCE's encounter data from the time a member receives a service (or services) until the encounter is processed by DHCFP. The solid lines represent the primary transaction paths between each process agent; the dotted lines represent data transfer feedback loops.

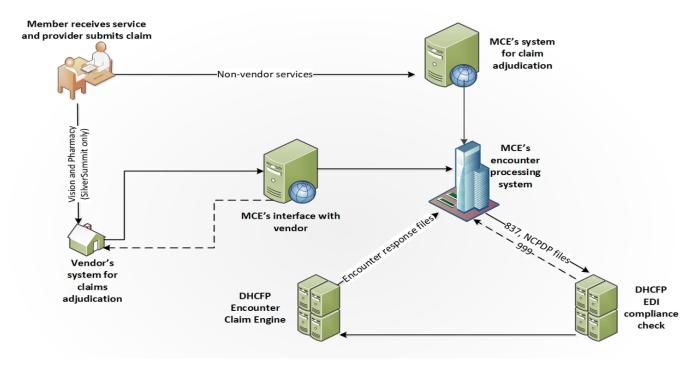


Figure 3-1—Claims/Encounter Data Path From Origin Through Submission to DHCFP



Information System Infrastructure

DHCFP received the 837P (professional), 837I (institutional), and NCPDP files directly from **SilverSummit**, and the 837D (dental) from **LIBERTY**.

Table 3-1 shows the source, format, and frequency of data submissions to DHCFP for both **SilverSummit** and **LIBERTY**. **SilverSummit** reported that none of the claims were submitted by capitated providers. **LIBERTY** reported approximately 69.0 percent, 16.0 percent, and 15.0 percent of claims received for capitated providers via the 837D, paper claims, and Web claims, respectively.

Table 3-1—Format and Submission Frequency of Encounters to DHCFP

Data Source	Description of Data Received (Including Format)	Frequency
SilverSummit		
Medical	837P and 837I	Daily
Pharmacy	CVS Caremark (CVSC)	Daily
Vision	Received through clearing Web portal	Daily
Non-Emergency Transportation Received through clearing house Web portal		Daily
Paper Claims	Claims Received through mail center in Farmington, Missouri	
LIBERTY		
Dental	837D	Daily
Paper Claims	American Dental Association (ADA) dental forms	Daily
Web Claims Web portal data entry screen		Daily

Upon receiving claims, **SilverSummit** and **LIBERTY** used various software to receive, process, validate, and prepare encounter data files as shown in Table 3-2. The Workgroup for Electronic Data Interchange Strategic National Implementation Process (WEDI SNIP) levels that were used in the EDI compliance checks included up to level 5 for **SilverSummit**, and **LIBERTY** used levels 1 through 4.

Table 3-2—Primary Software for Encounter Processing

MCE Primary Software for Claim Adjudication and Encounter Preparation		WEDI SNIP Level
SilverSummit	EDIFECS, Amisys, Encounter Data Manager (EDM)	All levels up to 5
HSP HIPAA Gateway/Meditrac HSP Perfect Claim/Meditrac HSP ITransact/Meditrac		Levels 1–4



Table 3-3 outlines noteworthy modifications, reformatting, or changes made to claims/encounter data to accommodate DHCFP's encounter data submission standard.

Table 3-3—Modification Made to Encounter Data to Accommodate DHCFP's Encounter Data Submission Standard

Encounter Type	Field(s)	Modification Details*				
SilverSummit	SilverSummit					
Professional claims	Procedure code, NDC, and date of service	Lines were rolled up when multiple lines on the same claim had the same procedure code, NDC, and date of service.				
All claims	NA	Files were separated by member regions North/South				
Pharmacy	NA	NA				
LIBERTY						
Dental claims	Service units	Service units were modified when a provider submitted units in excess of ADA accepted limits (e.g., 2 units on D2150, tooth number 2, surface DO; changed service units to maximum units of 1).				
Dental claims	Procedure code	Procedure codes were changed when a provider bundled or unbundled codes (e.g., provider submitted a D2140, tooth number 2, surface O and a D2140 tooth number 2, surface B; changed to procedure code D2150, tooth number 2, surface OB).				
Dental claims	Provider NPI and demographic	After matching the provider in LIBERTY 's system, the credentialed provider's NPI and demographics would be sent in the encounter submission which may be different than the submitted claims.				
Dental claims	Subscriber number	After matching the member on demographics, the Medicaid ID of the member would be sent in the encounter submission.				
Dental claims	Taxonomy	Taxonomy codes were derived from the provider's file based on the provider's specialty (or specialties), which were declared and validated during the provider credentialing/contracting process.				

^{*}D = distal: O = occlusal: B = buccal

Duplicate, Denied, and Adjusted Claims

In response to the MCEs' process to identify duplicate claims, **SilverSummit** noted that EDM will check to ensure encounters have received a response before resubmission so that duplicate original encounters are not submitted. However, in regard to duplicates within a claim, **SilverSummit** did not provide details on the fields used to identify duplicates. **LIBERTY** described in its response that duplicate claims would be identified when more than one claim has the same member, provider, facility, data of service, procedure code, tooth surface, and payment status. Once the system identified the duplicate claim lines, the system would auto-adjudicate to deny. Possible duplicates, such as a claim that has the same elements as another claim with the exception of a different provider, would be flagged in



the system and manually reviewed to determine if additional payment should be allowed. This process occurred on initial adjudication and before payment was determined.

Below are MCE-specific responses to submitting paid, partially paid, denied, voided, or adjusted claims to DHCFP:

- For non-pharmacy claims/encounters, **SilverSummit** submitted all types of claims/encounters; however, for pharmacy, only paid and denied claims/encounters were submitted. Fully denied claims were submitted with a "D" while denied lines were submitted with a "0" in the SVD02 (Monetary Amount) and SVD05 (Quantity) fields to indicate the line as a denied line. Pharmacy denials, (i.e., point of service denials) were sent on a separate file.
- LIBERTY submitted all types of claims/encounters including fully approved, partially approved, fully denied, and adjusted claims. LIBERTY processed paid and denied lines on the same claim and did not separate claims into paid and denied encounters. For fully denied claims that were adjusted, LIBERTY sent a resubmission to DHCFP for the adjusted claim/encounter as an original submission.

Both **SilverSummit** and **LIBERTY** outlined the process by which each MCE submitted adjustments, replacements, voids, and corrections (collectively referred to as adjustments) to encounters that had previously been submitted to DHCFP, which was an automated process within the MCEs' weekly submissions.

Collection, Use, and Submission of Provider Data

As noted in its response, **SilverSummit** and its vendors Envolve Vision and Envolve Pharmacy were responsible for the collection and maintenance of provider information. However, **SilverSummit** did not describe the process for linking data to claims/encounters to include any procedures for reconciling differences between data submitted on the claim/encounter and its provider data. **LIBERTY** noted that it collected and maintained provider data and provided documentation that described the flow of data from collection to maintenance. In describing the process for linking data to claims/encounters, **LIBERTY** noted that after matching the provider in its system from the incoming claim form/file, the credentialed provider NPI and other information would be sent in the encounter data. If the provider was different than the provider sent with the submitted provider data, the provider would be required to submit changes in the provider data through **LIBERTY**'s credentialing/provider relations team.

Collection, Use, and Submission of Enrollment Data

DHCFP provided EDI 834 files to the MCEs daily. Both MCEs then loaded these data into their systems for claim adjudication. **SilverSummit** also transmitted these member enrollment data to its subcontractors, and the subcontractors loaded the data into their claims systems as received.



Data Exchange Policies and Procedures

The encounter data submission process begins with reviewing contractual requirements and data submission requirements, such as companion guides and technical manuals. SilverSummit and LIBERTY submitted policies and procedure documents to HSAG as supporting documentation for the completed questionnaires. SilverSummit's documents described policies and procedures for generating and submitting accurate, timely, and complete encounter data to DHCFP. The documents also included a description of the responsibilities of the Encounter Business Operations (EBO), Encounters IT, SilverSummit, and Finance. In its response, LIBERTY also submitted documentation that described its encounter data submission process, including (1) its Claims and Encounter Processing Flowchart; and (2) documentation that outlined LIBERTY's process for "File Processing" with both internal entities, external entities and/or clients, which included but was not limited to eligibility, provider, claims/encounter, and other patient health information (PHI) files that were to be loaded or exchanged either internally or with external entities.

Payment Structures of Encounter Data

This section focuses primarily on the MCEs' collection of payment-related claims and how claims were paid. Table 3-4 shows **SilverSummit**'s and **LIBERTY**'s pricing methodology for the respective encounters.

Table 3-4—Pricing Methodology by MCE, Claim Type, and Payment Arrangement

		LIBERTY			
Payment Type	Inpatient	Outpatient	Pharmacy	Long-Term Care	Dental
Percent of Billed	1.0%	0.0%	NA	0.0%	0.0%
Line-by-line	0.0%	89.0%	NA	0.0%	100.0%
Per Diem	98.0%	10.0%	NA	99.0%	0.0%
Variable Per Diem	0.0%	0.0%	NA	0.0%	0.0%
Capitation	0.0%	0.0%	NA	0.0%	0.0%
DRG	0.0%	0.0%	NA	0.0%	NA
Negotiated (Flat) Rate	0.0%	0.0%	NA	0.0%	NA
Ingredient Cost (for Pharmacy)	0.0%	0.0%	Transparent pricing model	0.0%	NA
Single Case Agreement arrangements	<1.0%	<1.0%	NA	<1.0%	NA
Other (Please describe)	NA	NA	NA	NA	NA

NA = Not applicable



According to **SilverSummit**, the inpatient, outpatient, and long-term care encounters were submitted with paid information that matched the source claims system. The amount paid was directly sourced with no encounter changes. For pharmacy encounters, the amount **SilverSummit** paid to the pharmacy benefit manager (PBM) was reflected in the NCPDP D.0 Telecommunication Standard field 509-F9 and reflected the total claim cost minus patient pay. If a dispensing fee was reported separately, it would be populated in NCPDP D.0 field 507-F7.

LIBERTY noted that the encounter data submission reflected the amount charged, the amount paid, and adjustments.

Bundle Payment Structures

SilverSummit noted that delivery services were considered under bundled payment. **LIBERTY** noted that it did not have bundled payment arrangements.

Third-Party Liability (TPL) Data

For non-pharmacy claims, **SilverSummit** collected insurance data information if presented on a claim. It also had a corporate TPL team who researched and reviewed for TPL. **SilverSummit**'s vendors were also required to collect TPL data. Claims with TPL were processed through the standard coordination of benefit (COB) processes as well as recoveries if identified after the claim had been processed. For pharmacy claims, CVSC relied on **SilverSummit** to provide information about a member's primary coverage through the eligibility file. Upon receipt of the eligibility file, adjudication determined payments due from each of the payers, with Medicaid being the payer of last resort.

LIBERTY collected insurance coverage information from a variety of sources including data from members and providers through claim submission, member services, email, fax, mail, and its online portal. It used the primary payer's explanation of benefit (EOB) to verify the accuracy of the TPL claims information. COB payment data were stored in Health Solutions Plus (HSP) Meditrac on the COB Data tab.

Zero-Paid Claims

Both **SilverSummit** and **LIBERTY** submitted claims with a payment of \$0 to DHCFP. Both MCEs described that if a primary payer pays the full amount that would have been allowed under the member's Medicaid benefit, then no additional dollars would be owed, and Medicaid would pay \$0.

SilverSummit noted in its response that zero-paid claims for sub-capitated providers were processed and submitted to DHCFP. **SilverSummit** measured completeness and accuracy of the claims based on claim count to ensure acceptance of the \$0 paid claims. **LIBERTY** indicated there were no subcapitated providers since all payments were fee-for-service (FFS).



Encounter Data Quality Monitoring and Reporting

According to the DHCFP-approved questionnaire elements, **SilverSummit**'s and **LIBERTY**'s responses in this section addressed the following concepts:

- Monitoring the accuracy, completeness, and timeliness of claims and encounter data received from providers and vendors
- Monitoring the status of encounter data submitted to DHCFP

Monitoring Metrics for Encounter Data From Vendors/Subcontractors

LIBERTY noted that it did not use vendors, subcontractors, or third parties. SilverSummit routinely monitored completeness, accuracy, and timeliness of claims. For non-pharmacy encounters, based on SilverSummit's encounter policy and procedure document, it generated, reviewed, and acted on multiple reports specifically developed to ensure encounter reporting completeness and accuracy. To monitor timeliness, SilverSummit included sample reports such as a scrub report, reject report, and encounter submission tracking report. For pharmacy encounters, SilverSummit provided a financial reconciliation policy and procedure document that outlined processes depicting how completeness was monitored, and an encounter reconciliation policy and procedure document that outlined how encounter accuracy was monitored. For timeliness, all claims and encounters processed during the day were to be submitted weekly to ensure timely record submission.

Monitoring Metrics for Encounter Data From Providers

For encounters collected by the MCEs (i.e., not collected by subcontractors), both **SilverSummit** and **LIBERTY** routinely monitored completeness, accuracy, and timeliness of claims and encounters.

Table 3-6 describes how **SilverSummit** and **LIBERTY** monitored completeness, accuracy, and timeliness.

Measure	SilverSummit	LIBERTY
Completeness	Non-pharmacy Generated monthly lag reports that track overall completeness by both claims and dates of service	System edits ensure that the claim has met the mandatory requirements for submission. If the requirements are not met, the claim will be denied. The provider will be listed as the
	Pharmacy Only validated if/when an encounter is rejected	The provider will be listed on the weekly Pend/Deny report for further review/action.

Table 3-5—Monitoring Metrics for Encounter Data From Providers



Measure	SilverSummit	LIBERTY
Accuracy	Non-pharmacy • Maintained an encounter submission tracking document to monitor accuracy Pharmacy • Only validated if/when an encounter is rejected	• System edits were in place to identify anomalies in claims data. Should a provider submit claims with inaccurate or invalid information (invalid procedure, tooth, etc.), the provider would be placed on the weekly Pend/Deny Report for further review/action.
Timeliness	Non-pharmacy • Maintained an encounter submission tracking document to monitor timeliness Pharmacy • Pharmacy data were processed in real-time	• System edits are in place to ensure that claims are submitted within the timely filing period. If a claim was submitted outside of the timely filing period, it would be denied and the provider's name would be listed on the weekly Pend/Deny report for further review/action.

Table 3-6 shows the average percentage of rejected encounters for SilverSummit and LIBERTY.

Table 3-6—Encounter Rejection Rates by Compliance Issue

Compliance Issue	Average Rejection Rate for SilverSummit	Average Rejection Rate for LIBERTY	
Encounters rejected by DHCFP's EDI translator	Institutional: 0.0% Professional: 0.0% Pharmacy: 0.0% Vision Vendor: 0.0%	Dental: <1.0%	
Encounters that passed DHCFP's EDI translator but failed DHCFP's encounter edit	Institutional: 0.49% Professional: 0.11% Pharmacy: <1.0% Vision Vendor: 1.53%	Dental: <3.0%	

Lastly, **SilverSummit** noted that for non-pharmacy, its encounter data system was used for producing outbound encounter submissions, response file loading, and encounter data statistics tracking. Encounter data would then be passed into its Enterprise Data Warehouse (EDW), which could be used for rate setting, reporting, etc., by its health plan and corporate reporting teams. For pharmacy encounters, **SilverSummit** used encounter data provided by its claims processor to ensure contract compliance and that **SilverSummit**'s capitation rates were maximized. **LIBERTY** noted that its claims and encounter



data were used for Healthcare Effectiveness Data and Information Set (HEDIS®)3-1 and CMS-416 reporting as well as for rate setting.

Internal and External Challenges

Table 3-7 shows the internal and external challenges and upcoming changes that SilverSummit and **LIBERTY** noted in their responses.

Table 3-7—Internal/External Challenges and Upcoming Changes

MCE	Туре	Description
	Internal Challenge	None.
	External Challenge	None.
SilverSummit	Upcoming Changes	For non-pharmacy: At the time it completed the questionnaire, SilverSummit noted that an upgrade to the next Generation Encounter Data Manager will be completed in Quarter 3 2022 (i.e., using the same vendor with an upgraded system). There should be no changes to the outbound 837 encounter files because of a requirement that the upgrade be an exact match from legacy system to next generation.
	Internal Challenge	When a provider submitted an invalid procedure code (expired, non-existent, etc.), LIBERTY would deny or partially pay the claim if there were multiple claim lines. However, when the denied or partially paid claim was submitted to DHCFP, it would be rejected for an invalid procedure code, regardless of claim status.
LIBERTY		Duplicate rejections present an issue between two partially or fully denied encounters. While only one instance would be paid, DHCFP would not remove plan denied lines when determining duplicates. LIBERTY believed that only approved items should be considered when performing duplicate checks. According to LIBERTY, this policy was in place in other Medicaid states.
	External Challenge	 LIBERTY noted that the following resources and support from DHCFP would be most helpful in overcoming these challenges: Allow adjustments to fully denied claims. Do not reject encounters for denied line errors. Do not consider plan denied lines when checking for duplicates.
	Upcoming Changes	None.

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4. Comparative Analysis

Background

This section presents findings from the results of the comparative analysis of the professional, institutional, pharmacy, and dental encounter data maintained by DHCFP and the MCEs. The analysis examined the extent to which encounters submitted by the MCEs and maintained in DHCFP's data warehouse (and the data subsequently extracted and submitted by DHCFP to HSAG for the study) were accurate and complete when compared to data the MCEs submitted to HSAG.

To compare DHCFP's and the MCEs' submitted data, HSAG developed a comparable match key between the two data sources. Data fields used in developing the match key varied by MCE and encounter type but generally included the *ICN* (internal control number) or *TCN* (transaction control number) and detail line number. These data elements were concatenated to create a unique match key, which became the unique identifier for each encounter detail line in DHCFP's and each MCE's data.

Record Completeness

As described in the "Methodology" section, two aspects of record completeness are used—record omission and record surplus.

Encounter record omission and surplus rates are summary metrics designed to evaluate discrepancies between two data sources—i.e., primary and secondary. The primary data source refers to data maintained by an organization (e.g., MCE) responsible for sending data to another organization (e.g., DHCFP). 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 an MCE that are missing from DHCFP's data. Similarly, the encounter record surplus rate refers to the percentage of encounters reported in the secondary data source (DHCFP) that are missing from the primary data source (the MCE).

Encounter Data Record Omission and Record Surplus

Table 4-1 displays the percentage of records present in the files submitted by the MCEs that were not found in DHCFP's files (record omission) and the percentage of records present in DHCFP's files but not present in the files submitted by the MCEs (record surplus). Lower rates indicate better performance for both record omission and record surplus.



Table 4-1—Record Omission and Surplus Rates, by MCE and Encounter Type

MCE	Professional Encounters		Institutional Encounters			macy Inters	Dental Encounters	
	Omission	Surplus	Omission	Surplus	Omission	Surplus	Omission	Surplus
Anthem	10.4%	0.8%	21.1%	3.4%	0.2%	13.6%		
HPN	2.4%	1.6%	2.2%	5.6%	0.0%	12.3%		
SilverSummit	1.7%	1.9%	8.4%	1.9%	0.7%	15.0%		
LIBERTY							1.8%	1.0%
Overall	5.8%	1.3%	11.6%	4.3%	0.2%	13.3%	1.8%	1.0%

Note: Gray cells indicate that encounter types were not applicable for the MCEs.

Key Findings: Table 4-1

- Overall, the pharmacy encounters submitted by the MCEs that were not found in DHCFP-submitted data exhibited the lowest record omission rate, 0.2 percent. The low overall record omission rate for this encounter type suggests that at least 99.8 percent of pharmacy encounters in MCE-submitted files were also present in DHCFP-submitted files. The overall record omission rate of 11.6 percent for institutional encounters was highest among all encounter types, suggesting that approximately 88.4 percent of the institutional encounters in MCE-submitted files were also present in DHCFP-submitted files.
 - For professional encounters with an overall record omission rate of 5.8 percent, rates among the MCEs ranged from 1.7 percent (SilverSummit) to 10.4 percent (Anthem). While HSAG was unable to determine or confirm the root cause of Anthem's high omission rate, it appears that among records identified as omissions, nearly 24.0 percent were associated with records having a rejection status.
 - For institutional encounters, Anthem's record omission rate of 21.1 percent contributed to the higher overall omission rate compared to other encounter types. While HSAG was unable to determine or confirm the root cause of the discrepancies, it appears that among records identified as omissions, more than 21.0 percent were associated with records having a status of either no remittance or rejected.
- The overall record surplus rate of 1.0 percent for dental encounters was lowest among all encounter types, suggesting that at least 99.0 percent of these encounters in DHCFP-submitted files were corroborated in MCE-submitted files. Pharmacy encounters exhibited the highest overall record surplus rate, 13.3 percent.
 - For the submitted pharmacy encounters, all MCEs consistently exhibited surplus rates of more than 10.0 percent. Based on further investigation, it appears that DHCFP-submitted pharmacy encounters contained records that were not in their final status.
- LIBERTY's dental encounters and SilverSummit's professional encounters exhibited the most complete data, with record omission and surplus rates of less than 2.0 percent each, when the two data sources (i.e., DHCFP- and MCE-submitted files) were compared.



Data Element Completeness

This section presents the data element omission results by key data element and evaluates completeness based on percentage of records with values present in the MCEs' data systems but not in DHCFP's data warehouse. Similarly, data element surplus results are presented by key data element and evaluate completeness based on the percentage of records with values present in DHCFP's data warehouse but not in the MCEs' data. Data element omission and surplus found in DHCFP's data warehouse illustrate discrepancies in the completeness of DHCFP's encounter data. The data elements are considered relatively complete when they exhibit low element omission and surplus rates.

This section also presents data accuracy results by key data element and evaluates accuracy based on the percentage of records with values present in both data sources and which contain the same values.

Finally, this section also presents the all-element accuracy results for records present in both data sources and with the same values (missing or non-missing) for <u>all</u> key data elements relevant to each claim type.

Table 4-2 through Table 4-5 present the results of encounter data element omission and surplus for each encounter type and describe the extent to which key data elements are present in DHCFP's and the MCEs' data systems. Table 4-6 through Table 4-9 present the results of encounter data element accuracy for each encounter type and describe the extent to which matched records contained matching information at the data element level. Table 4-10 presents the rates for all-element accuracy for each encounter type included in the study.

Data Element Omission and Surplus

Table 4-2 displays the element omission and surplus results for each key data element from the professional encounters for the MCOs. For the element omission and surplus indicators, lower rates indicate better performance.

Table 4-2—Data Element Omission and Surplus: Professional Encounters

	Element Omission				Element Surplus				
Key Data Element	Overall Rate	Anthem	HPN	SilverSummit	Overall Rate	Anthem	HPN	SilverSummit	
Recipient ID	0.0%	0.0%	0.0%	0.0%	<0.1%	0.0%	<0.1%	0.0%	
Header Service From Date	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Header Service To Date	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Detail Service From Date	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Detail Service To Date	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Billing Provider NPI	3.4%	4.3%	3.2%	1.5%	<0.1%	<0.1%	<0.1%	0.0%	



	Element Omission				Element Surplus				
Key Data Element	Overall Rate	Anthem	HPN	SilverSummit	Overall Rate	Anthem	HPN	SilverSummit	
Rendering Provider NPI	1.1%	2.1%	0.4%	0.7%	29.3%	31.6%	27.8%	26.9%	
Referring Provider NPI	1.1%	0.0%	1.4%	3.6%	19.1%	46.1%	0.0%	0.0%	
Primary Diagnosis Code	0.0%	0.0%	0.0%	0.0%	<0.1%	<0.1%	<0.1%	0.0%	
Secondary Diagnosis Code ¹	<0.1%	<0.1%	0.0%	0.0%	10.1%	20.6%	0.0%	12.8%	
Procedure Code (CPT/HCPCS/CDT)	<0.1%	<0.1%	<0.1%	<0.1%	<0.1%	0.0%	<0.1%	<0.1%	
Procedure Code Modifier	<0.1%	<0.1%	<0.1%	<0.1%	<0.1%	<0.1%	<0.1%	<0.1%	
NDC	<0.1%	<0.1%	0.1%	<0.1%	<0.1%	<0.1%	<0.1%	<0.1%	
Drug Quantity	<0.1%	<0.1%	0.1%	<0.1%	0.0%	0.0%	0.0%	0.0%	
Header Paid Amount	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Detail Paid Amount	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

¹ Calculated for *Diagnosis Code 2* only.

Key Findings: Table 4-2

- The overall element omission rates for professional encounters were less than 1.5 percent for all key data elements evaluated except for data element *Billing Provider NPI*, with an overall element omission rate of 3.4 percent.
 - The overall element omission rate for data element *Billing Provider NPI* was mostly due to **Anthem**'s and **HPN**'s omission rates—4.3 percent and 3.2 percent, respectively. For records wherein *Billing Provider NPI* values were in **Anthem**-submitted data and not in DHCFP-submitted data, nearly 50.0 percent were for NPI values 1639555899 and 1962476259. For **HPN**, among records wherein *Billing Provider NPI* values were in **HPN**-submitted data but not in DHCFP-submitted data, approximately 20.0 percent were for NPI values 1999999984 and 1295338416. Of note, NPI value 1999999984 is an atypical provider number assigned to a provider not enrolled in Nevada Medicaid. Additionally, DHCFP noted that it is working toward a solution that DHCFP believes might improve the *Billing Provider NPI* data element results.
- The overall element surplus rates were less than 0.1 percent for all key data elements evaluated, except for data elements *Rendering Provider NPI*, *Referring Provider NPI*, and *Secondary Diagnosis Code*, with overall surplus rates of 29.3 percent, 19.1 percent, and 10.1 percent, respectively.
 - All three MCOs had element surplus rates greater than 25.0 percent for data element *Rendering Provider NPI*. Among records wherein this data element's values were in DHCFP-submitted data but not in MCE-submitted data, nearly 100.0 percent had the same values as the *Billing Provider NPI* within DHCFP-submitted data. It appears that when the *Rendering Provider NPI* was not submitted by the MCEs to DHCFP, the values were populated with the *Billing Provider*



- *NPI* during DHCFP's internal data processing. However, none of the three MCEs modified this field when extracting and submitting data for this study, which resulted in the high surplus rates.
- The overall *Referring Provider NPI* surplus rate was due to **Anthem**'s surplus rate of 46.1 percent for this data element. Among records wherein this data element's values were in DHCFP-submitted data but not in **Anthem**-submitted data, approximately 22.0 percent had the same values as the *Rendering Provider NPI*.
- Anthem and SilverSummit had Secondary Diagnosis Code surplus rates of more than 10.0 percent, with rates of 20.6 percent and 12.8 percent, respectively. Among records wherein Anthem did not have the Secondary Diagnosis Code populated while DHCFP-submitted data had this field populated, most of the records did not have the Third Diagnosis Code populated. However, for SilverSummit, more than 50.0 percent of records had the Third Diagnosis Code populated with values. In general, it appears that DHCFP-submitted data had at least one extra diagnosis code field populated compared to the MCE-submitted data.

Table 4-3 displays the element omission and surplus results for each key data element from institutional encounters for the MCOs. For this indicator, lower rates indicate better performance.

Table 4-3—Data Element Omission and Surplus: Institutional Encounters

	Element Omission				Element Surplus				
Key Data Element	Overall Rate	Anthem	HPN	SilverSummit	Overall Rate	Anthem	HPN	SilverSummit	
Recipient ID	0.0%	0.0%	0.0%	0.0%	<0.1%	0.0%	<0.1%	0.0%	
Header Service From Date	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Header Service To Date	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Detail Service From Date	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Detail Service To Date	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Billing Provider NPI	0.4%	0.5%	0.3%	0.2%	0.0%	0.0%	0.0%	0.0%	
Attending Provider NPI	1.8%	2.0%	1.7%	1.7%	0.0%	0.0%	0.0%	0.0%	
Referring Provider NPI	0.5%	0.0%	0.7%	1.0%	0.5%	0.0%	1.1%	0.0%	
Primary Diagnosis Code	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Secondary Diagnosis Code ¹	2.2%	0.0%	4.7%	0.0%	5.2%	12.8%	0.0%	<0.1%	
Procedure Code (CPT/HCPCS/CDT)	0.2%	<0.1%	0.4%	0.1%	0.2%	<0.1%	0.4%	0.3%	
Procedure Code Modifier	0.5%	<0.1%	0.9%	0.3%	0.5%	<0.1%	0.9%	0.5%	
Primary Surgical Procedure Code	<0.1%	0.0%	<0.1%	0.0%	5.5%	13.3%	<0.1%	0.0%	



Key Data Element	Overall	Anthem	HPN	SilverSummit	Overall Rate	Anthem	HPN	SilverSummit
Secondary Surgical Procedure Code ²	<0.1%	0.0%	<0.1%	0.0%	3.5%	8.4%	0.1%	0.0%
NDC	1.0%	<0.1%	2.0%	0.3%	1.0%	<0.1%	2.0%	0.5%
Drug Quantity	1.0%	<0.1%	2.0%	0.3%	0.0%	0.0%	0.0%	0.0%
Revenue Code	<0.1%	<0.1%	<0.1%	<0.1%	<0.1%	0.0%	0.0%	<0.1%
Header Paid Amount	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Detail Paid Amount								

¹ Calculated for *Diagnosis Code 2* only.

Key Findings: Table 4-3

- The overall element omission rates for institutional encounters were less than 2.5 percent for all key data elements evaluated.
 - For all MCEs except **HPN**, all data element omission rates were less than 2.5 percent; **HPN**'s *Secondary Diagnosis Code* data element omission rate was slightly higher at 4.7 percent.
- The overall element surplus rates for institutional encounters were less than 4.0 percent for key data elements evaluated, except *Secondary Diagnosis Code* and *Primary Surgical Procedure Code* data elements, which had overall surplus rates of 5.2 percent and 5.5 percent, respectively.
 - Anthem's Secondary Diagnosis Code data element surplus rate of 12.8 percent contributed to the higher overall element surplus rate for this data element. Similar to findings from the professional encounters, among records wherein Anthem did not have the Secondary Diagnosis Code populated while DHCFP-submitted data had this field populated, most of the records did not have the Third Diagnosis Code populated in either data source. While HSAG was unable to determine or confirm the root cause of the discrepancy, it is possible that the discrepancy may have resulted from errors in extracting the data for the study.
 - Anthem's Primary Surgical Procedure Code and Secondary Surgical Procedure Code rates, 13.3 percent and 8.4 percent, respectively, contributed to the higher overall element surplus rates for these data elements. In general, it appears that DHCFP-submitted data had at least one extra surgical procedure code field populated compared to Anthem-submitted data. While HSAG was unable to determine or confirm the root cause of the discrepancy, it is possible that the discrepancy may have resulted from errors in extracting the data for the study.

² Calculated for Surgical Procedure Code 2 only.



Table 4-4 displays the element omission and surplus results for each key data element from pharmacy encounters for the MCOs. For this indicator, lower rates indicate better performance.

Table 4-4—Data Element Omission and Surplus: Pharmacy Encounters

		Element Omission			Element Surplus				
Key Data Element	Overall Rate	Anthem	HPN	SilverSummit	Overall Rate	Anthem	HPN	SilverSummit	
Recipient ID	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Date of Service	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Billing Provider NPI	0.6%	0.1%	1.0%	1.0%	0.0%	0.0%	0.0%	0.0%	
Prescribing Provider NPI	0.0%	0.0%	0.0%	0.0%	<0.1%	<0.1%	0.0%	<0.1%	
NDC	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Drug Quantity	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Paid Amount	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Key Findings: Table 4-4

• Overall, the data element omission and surplus rates for all MCEs were 1.0 percent or less for all key data elements that were evaluated for pharmacy encounters.

Table 4-5 displays the element omission and surplus results for each key data element from dental encounters for the DBA. For this indicator, lower rates indicate better performance.

Table 4-5—Data Element Omission and Surplus: Dental Encounters—LIBERTY

Key Data Element	Element Omission	Element Surplus
Recipient ID	0.0%	0.0%
Header Service From Date	0.0%	0.0%
Header Service To Date	0.0%	0.0%
Detail Service From Date	0.0%	0.0%
Detail Service To Date	0.5%	0.0%
Billing Provider NPI	5.2%	0.0%
Rendering Provider NPI	0.3%	0.0%
Procedure Code (CDT)	<0.1%	0.0%
Tooth Number	<0.1%	<0.1%
Oral Cavity Code	<0.1%	<0.1%
Tooth Surface 1	<0.1%	<0.1%
Tooth Surface 2	<0.1%	0.0%



Key Data Element	Element Omission	Element Surplus
Tooth Surface 3	<0.1%	0.0%
Tooth Surface 4	<0.1%	<0.1%
Tooth Surface 5	<0.1%	0.0%
Header Paid Amount	0.0%	0.0%
Detail Paid Amount	0.0%	0.0%

Key Findings: Table 4-5

• The data element omission and surplus rates for **LIBERTY** were less than 1.0 percent for all key data elements that were evaluated for dental encounters except *Billing Provider NPI*, with an element omission rate of 5.2 percent. Among records wherein *Billing Provider NPI* values were included in **LIBERTY**-submitted data but not in DHCFP-submitted data, more than 35.0 percent were for NPI value 1131860365. Of note, NPI value 1131860365 is not a valid NPI in the National Plan and Provider Enumeration System (NPPES) and a provider with this NPI is not enrolled in Nevada Medicaid.

Data Element Accuracy

Element-level accuracy is limited to those records present in both data sources and with values present in both data sources. Records with values missing from 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 DHCFP's submitted encounter data are more accurate. As such, **for this indicator**, **higher rates indicate better performance**.

Table 4-6 displays, for each key data element associated with professional encounters for the MCOs, the percentage of records with the same values in both MCE- and DHCFP-submitted files. For this indicator, higher rates indicate better performance.

Voy Data Flamont	Element Accuracy							
Key Data Element	Overall Rate	Anthem	HPN	SilverSummit				
Recipient ID	>99.9%	>99.9%	>99.9%	>99.9%				
Header Service From Date	>99.9%	>99.9%	>99.9%	>99.9%				
Header Service To Date	>99.9%	>99.9%	>99.9%	100.0%				
Detail Service From Date	>99.9%	>99.9%	>99.9%	>99.9%				
Detail Service To Date	>99.9%	>99.9%	>99.9%	>99.9%				
Billing Provider NPI	98.6%	99.9%	97.9%	96.4%				
Rendering Provider NPI	>99.9%	100.0%	>99.9%	>99.9%				

Table 4-6—Data Element Accuracy: Professional Encounters



Var. Data Flamont	Element Accuracy					
Key Data Element	Overall Rate	Anthem	HPN	SilverSummit		
Referring Provider NPI	100.0%	NA	100.0%	100.0%		
Primary Diagnosis Code	98.7%	>99.9%	100.0%	89.4%		
Secondary Diagnosis Code ¹	66.6%	0.0%	97.1%	93.2%		
Procedure Code (CPT/HCPCS/CDT)	99.8%	>99.9%	99.7%	>99.9%		
Procedure Code Modifier	>99.9%	>99.9%	>99.9%	>99.9%		
NDC	>99.9%	>99.9%	99.9%	>99.9%		
Drug Quantity	71.9%	47.0%	99.8%	57.3%		
Header Paid Amount	98.8%	>99.9%	97.5%	99.9%		
Detail Paid Amount	99.4%	>99.9%	98.7%	99.9%		

¹ Calculated for *Diagnosis Code 2* only.

Key Findings: Table 4-6

- Fourteen of the 16 key data elements evaluated for professional encounters had an overall accuracy rate of at least 98.0 percent. *Secondary Diagnosis Code* and *Drug Quantity* data elements exhibited lower accuracy (i.e., 66.6 percent and 71.9 percent, respectively) compared to all other data elements.
 - While the overall *Primary Diagnosis Code* data element accuracy was high at 98.7 percent, SilverSummit's accuracy rate for this data element was less than 90.0 percent. It appears that for matching values between the two data sources, the majority of the records had diagnosis codes populated in a different order. For example, SilverSummit's *Primary Diagnosis Code* value was populated in another of DHCFP's diagnosis code fields. In nearly 90.0 percent of the time wherein values for this data element did not match, the *Primary Diagnosis Code* in DHCFP-submitted data was populated in another of SilverSummit's diagnosis code fields. It also appears that DHCFP-submitted data had more diagnosis codes fields than the SilverSummit-submitted data.
 - Anthem had the lowest accuracy rate for data element Secondary Diagnosis Code (0.0 percent) compared to HPN and SilverSummit, with accuracy rates of 97.1 percent and 93.2 percent, respectively. It appears that for records wherein Anthem-submitted Secondary Diagnosis Code values matched the Secondary Diagnosis Code values from DHCFP-submitted data, nearly all had this data element's values matched with another of the diagnosis code position values—e.g., the Third Diagnosis Code or the Fourth Diagnosis Code data element.
 - Both **Anthem** and **SilverSummit** contributed to the lower overall accuracy rate for data element *Drug Quantity*, with rates of 47.0 percent and 57.3 percent, respectively. **Anthem**-submitted data had the *Drug Quantity* data element populated with the same values as the *Units of Service* data element values. Among *Drug Quantity* values that did not match between DHCFP-submitted data and **SilverSummit**-submitted data, the values in DHCFP-submitted data contained decimals while **SilverSummit**-submitted data were populated with whole numbers.



Table 4-7 displays, for each key data element associated with institutional encounters for the MCOs, the percentage of records with the same values in both MCE- and DHCFP-submitted files. For this indicator, higher rates indicate better performance.

Table 4-7—Data Element Accuracy: Institutional Encounters

Vou Data Flamont	Element Accuracy					
Key Data Element	Overall Rate	Anthem	HPN	SilverSummit		
Recipient ID	>99.9%	>99.9%	>99.9%	100.0%		
Header Service From Date	99.9%	>99.9%	99.7%	100.0%		
Header Service To Date	99.4%	100.0%	98.7%	100.0%		
Detail Service From Date	92.4%	84.4%	97.8%	98.5%		
Detail Service To Date	84.3%	64.7%	97.8%	98.5%		
Billing Provider NPI	>99.9%	>99.9%	>99.9%	>99.9%		
Attending Provider NPI	100.0%	100.0%	100.0%	100.0%		
Referring Provider NPI	4.4%	NA	4.4%	NA		
Primary Diagnosis Code	>99.9%	100.0%	>99.9%	100.0%		
Secondary Diagnosis Code ¹	57.8%	0.0%	90.0%	100.0%		
Procedure Code (CPT/HCPCS/CDT)	93.3%	>99.9%	86.9%	95.2%		
Procedure Code Modifier	99.4%	>99.9%	98.7%	99.6%		
Primary Surgical Procedure Code	55.2%	NA	42.8%	100.0%		
Secondary Surgical Procedure Code ²	37.0%	NA	19.3%	99.8%		
NDC	98.9%	>99.9%	98.4%	97.1%		
Drug Quantity	72.9%	48.2%	88.6%	86.9%		
Revenue Code	95.7%	>99.9%	91.4%	97.6%		
Header Paid Amount	99.0%	>99.9%	97.8%	99.9%		
Detail Paid Amount	95.8%	>99.9%	91.4%	97.9%		

¹Calculated for *Diagnosis Code 2* only.

NA indicates not applicable since no records had values present in both data sources.

Key Findings: Table 4-7

- Eleven of the 19 key data elements evaluated for institutional encounters each had an overall accuracy rate of at least 95.0 percent. *Detail Service From Date, Detail Service To Date, Referring Provider NPI, Secondary Diagnosis Code, Procedure Code, Primary Surgical Procedure Code, Secondary Surgical Procedure Code,* and *Drug Quantity* data elements exhibited lower accuracy, with rates ranging from 4.4 percent to 93.3 percent, compared to all other data elements.
 - For *Detail Service From Date* and *Detail Service To Date* data elements, **Anthem**'s lower accuracy rates of 84.4 percent and 64.7 percent, respectively, contributed to the lower overall

² Calculated for Surgical Procedure Code 2 only.



- rates for these two data elements. Among records wherein these two data elements did not match, approximately 67.0 percent had a difference of one or two days between the values of the two data sources.
- Among matched records, there were fewer than 2,000 records wherein *Referring Provider NPI* was populated in both DHCFP-submitted and HPN-submitted data, with fewer than 100 records having the same values.
- Anthem had the lowest accuracy rate of 0.0 percent for data element Secondary Diagnosis Code compared to HPN and SilverSummit, with accuracy rates of 90.0 percent and 100.0 percent, respectively. Similar to the professional encounter data finding related to Secondary Diagnosis Code, it appears that for records wherein the Anthem-submitted Secondary Diagnosis Code values matched the Secondary Diagnosis Code values from DHCFP-submitted data, nearly all had this data element's values matched with another of the diagnosis code position values—e.g., the Third Diagnosis Code or the Fourth Diagnosis Code data element.
- HPN's accuracy rates for data elements *Primary Surgical Procedure Code* and *Secondary Surgical Procedure Code* were relatively low (42.8 percent and 19.3 percent, respectively). It appears that for records wherein HPN-submitted *Primary Surgical Procedure Code* values matched the values from DHCFP-submitted data, more than 85.0 percent of the *Primary Surgical Procedure Code* data element's values matched another of the procedure code position values—e.g., the *Second Procedure Code* or the *Third Procedure Code* data element. Similarly, among records wherein the HPN-submitted *Secondary Procedure Code* values matched the values from DHCFP-submitted data, nearly 74.0 percent of the *Secondary Surgical Procedure Code* data element's values matched another of the procedure code position values—e.g., the *Primary Procedure Code* or the *Third Procedure Code* data element.
- All three MCOs contributed to the overall lower *Drug Quantity* data element accuracy rate of 72.9 percent. **Anthem**-submitted data had the *Drug Quantity* data element populated with the same values as the *Units of Service* data element values. Among *Drug Quantity* values that did not match between DHCFP-submitted data and **SilverSummit**-submitted data, the values in DHCFP-submitted data contained decimals while **SilverSummit**-submitted data were populated with whole numbers.
- HPN had slightly lower accuracy rates for data elements *Procedure Code*, *Revenue Code*, and *Detail Paid Amount* (i.e., 86.9 percent, 91.4 percent and 91.4 percent, respectively) compared to **Anthem** and **SilverSummit** accuracy rates for the same data elements. The lower accuracy rates were due to the difference in the order of the detail lines. As a result, when records were matched based on a unique key that included the detail line number, the values of these data elements were misaligned.



Table 4-8 displays, for each key data element associated with pharmacy encounters for the MCOs, the percentage of records with the same values in both MCE- and DHCFP-submitted files. For this indicator, higher rates indicate better performance.

Table 4-8—Data Element Accuracy: Pharmacy Encounters

Key Data Element	Element Accuracy						
Rey Data Element	Overall Rate	Anthem	HPN	SilverSummit			
Recipient ID	>99.9%	>99.9%	>99.9%	>99.9%			
Date of Service	100.0%	100.0%	100.0%	100.0%			
Billing Provider NPI	>99.9%	100.0%	>99.9%	100.0%			
Prescribing Provider NPI	>99.9%	>99.9%	100.0%	>99.9%			
NDC	>99.9%	>99.9%	100.0%	99.8%			
Drug Quantity	99.9%	99.9%	99.8%	99.8%			
Paid Amount	97.1%	94.6%	99.8%	98.3%			

Key Findings: Table 4-8

• The pharmacy data element accuracy rates for all MCEs were at least 98.0 percent, except for **Anthem**'s *Paid Amount* data element, with an accuracy rate of 94.6 percent. Among records wherein **Anthem**'s *Paid Amount* values did not match values in DHCFP-submitted data, more than 99.0 percent had a *Claim Status* of "D," with DHCFP-submitted data having *Paid Amount* values of zero and **Anthem**-submitted data having *Paid Amount* values greater than zero.

Table 4-9 displays, for each key data element associated with dental encounters, the percentage of records with the same values in both DBA- and DHCFP-submitted files. For this indicator, higher rates indicate better performance.

Table 4-9—Data Element Accuracy: Dental Encounters—LIBERTY

Key Data Element	Element Accuracy
Recipient ID	>99.9%
Header Service From Date	>99.9%
Header Service To Date	>99.9%
Detail Service From Date	>99.9%
Detail Service To Date	>99.9%
Billing Provider NPI	97.6%
Rendering Provider NPI	>99.9%
Procedure Code (CDT)	>99.9%
Tooth Number	>99.9%
Oral Cavity Code	98.7%



Key Data Element	Element Accuracy
Tooth Surface 1	100.0%
Tooth Surface 2	>99.9%
Tooth Surface 3	100.0%
Tooth Surface 4	100.0%
Tooth Surface 5	100.0%
Header Paid Amount	99.5%
Detail Paid Amount	99.7%

Key Findings: Table 4-9

• The dental data element accuracy rates for **LIBERTY** were at least 97.0 percent. The *Billing Provider NPI* data element demonstrated the lowest data element accuracy rate of 97.6 percent compared to other data elements evaluated for dental encounters.

All-Element Accuracy

Table 4-10 displays the all-element accuracy results for the percentage of records present in both data sources with the same values (missing and non-missing) for all key data elements relevant to each encounter data type.

Professional MCE Institutional **Pharmacy Dental** Anthem 13.4% 8.4% 94.5% **HPN** 62.5% 66.3% 98.9% **SilverSummit** 52.3% 91.5% 97.3% LIBERTY 91.4% Overall 40.9% 91.4% 45.7% 96.6%

Table 4-10—All-Element Accuracy, by MCE and Encounter Type

Note: Gray cells indicate that encounter types were not applicable for the MCEs.

Key Findings: Table 4-10

- For **professional encounters**, the overall all-element accuracy rate was 40.9 percent, with MCE rates ranging from 13.4 percent (**Anthem**) to 62.5 percent (**HPN**).
 - For Anthem, lower data element accuracy rates for data elements Secondary Diagnosis Code and Drug Quantity and a high element surplus rate for data element Rendering Provider NPI were the primary causes for a lower all-element accuracy rate.
 - For **HPN**, the high element surplus rate for data element *Rendering Provider NPI* was the primary cause for a lower all-element accuracy rate.



- For **SilverSummit**, lower data element accuracy rates for data elements *Primary Diagnosis Code* and *Drug Quantity* and high element surplus rates for data element *Rendering Provider NPI* and *Secondary Diagnosis Code* were the primary causes for a lower all-element accuracy rate.
- The overall all-element accuracy rate for **institutional encounters** was 45.7 percent, with MCE rates ranging from 8.4 percent (**Anthem**) to 91.5 percent (**SilverSummit**).
 - Anthem's all-element accuracy rate was 8.4 percent, which is due to the low data element accuracy rates for data elements *Detail Service From Date* and *Detail Service To Date*, *Secondary Diagnosis Code*, and *Drug Quantity*; a higher element omission rate for data element *Secondary Diagnosis Code*; and higher element surplus rates for data elements *Secondary Diagnosis Code*, *Primary Surgical Procedure Code*, and *Secondary Surgical Procedure Code*.
 - For **HPN**, the lower data element accuracy rates for data elements *Referring Provider NPI*, *Primary Surgical Procedure Codes*, and *Secondary Surgical Procedure Codes* are the primary causes for a lower all-element accuracy rate.
 - SilverSummit had a relatively high all-element accuracy rate of 91.5 percent.
- The overall all-element accuracy rate for **pharmacy encounters** was high at 96.6 percent, with MCE rates ranging from 94.5 percent (**Anthem**) to 98.9 percent (**HPN**). The *Paid Amount* data element accuracy rate prevented the all-element accuracy rate from being higher.
- The overall all-element accuracy rate for **dental encounters** was also relatively high at 91.4 percent. The *Billing Provider NPI* data element omission rate prevented the all-element accuracy rate from being higher.



5. Medical/Dental Record Review

Background

Medical/dental records are considered the "gold standard" for documenting Medicaid members' access to and quality of services. The IS review examined the MCEs' data-handling processes, with the goal of enabling HSAG to understand how various systems interact and potentially impact the MCEs' abilities to submit complete, reasonable, and accurate data to DHCFP. The comparative analysis component of the study seeks to determine the completeness and validity of DHCFP's encounter data as well as how comparable these data are to the MCEs' data from which these data are based. Medical/dental record review further assessed data quality by investigating the completeness and accuracy of DHCFP's encounters compared to the information documented in the corresponding medical/dental records for Medicaid members.

This section presents findings from HSAG's medical/dental record review to examine the extent to which services documented in medical/dental records were not present in the encounter data (i.e., encounter data omission), as well as the extent to which services documented in the encounter data were not present in the members' corresponding medical/dental records (i.e., medical/dental record omission).

This section also presents findings from HSAG's evaluation of accuracy of diagnosis codes, procedure codes, and procedure code modifiers submitted by the MCEs' contracted providers to the MCEs and consequently submitted to DHCFP based on documentation contained in members' medical/dental records.

Medical/Dental Record Procurement Status

As noted in the "Methodology" section of this report, the final sample in the evaluation consisted of 411 cases randomly selected for each MCE. Additionally, to evaluate whether any dates of service were omitted from DHCFP's electronic encounters, HSAG reviewed a second date of service rendered by the same provider during the review period. The providers were requested to submit all medical/dental record documentation pertaining to an additional date of service occurring closest to the sampled members' selected date of service, if available. If a sampled member did not have a second visit with the same provider during the review period, HSAG evaluated only one date of service for that member. As such, the final number of cases reviewed were between 411 and 822 cases total for each MCE.

DHCFP-based encounters for which a corresponding medical/dental record was not submitted were included in the analysis to underscore the impact that these omissions had on key data elements (i.e., *Diagnosis Code, Procedure Code*, and *Procedure Code Modifier*) associated with encounter data completeness. For example, when no medical/dental record was submitted for an encounter based on the date of service, the subsequent diagnosis code(s), procedure code(s), and procedure code modifier(s) associated with that date of service were treated as medical/dental record omissions.



Table 5-1 displays the medical/dental record procurement status for each MCE, while Table 5-2 highlights the major reasons medical/dental record documentation was not submitted by each MCE. Table 5-3 displays the number and percentage of cases with one additional date of service selected and submitted for the study.

Table 5-1—Medical Record Procurement Status

MCE	Number of Records Requested	Number of Records Submitted	Percentage of Records Submitted
Anthem	411	349	84.9%
HPN	411	409	99.5%
SilverSummit	411	233	56.7%
LIBERTY	411	397	96.6%
Overall	1,644	1,388	84.4%

Table 5-2—Reasons Medical/Dental Records Not Submitted for Date of Service, by MCE

		Provider Provider Respo	ponsive der or Did Not nd in a Manner	a Patier	Was Not nt of the ctice	Availabl	d Not e at This ility	Otl	her
МСЕ	Medical /Dental Records Not Submitted	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Anthem	62	50	80.6%	2	3.2%	9	14.5%	1	1.6%
HPN	2	0	0.0%	0	0.0%	1	50.0%	1	50.0%
SilverSummit	178	178	100.%	0	0.0%	0	0.0%	0	0.0%
LIBERTY	14	1	7.1%	0	0.0%	2	14.3%	11	78.6%
Overall	256	229	89.5%	2	0.8%	12	4.7%	13	5.1%

Table 5-3—Medical/Dental Record Submission Status for Second Date of Service

MCE	Number of Records Submitted	Number of Records With One Additional Date of Service	Percent
Anthem	349	144	41.3%
HPN	409	249	60.9%
SilverSummit	233	63	27.0%



MCE	Number of Records Submitted	Number of Records With One Additional Date of Service	
LIBERTY	397	8	
Overall	1,388	464	

Note: Records with an additional date of service were included only if the date of service was within the study period and the visit occurred with the same rendering provider as the sampled visit.

Key Findings: Table 5-1, Table 5-2, and Table 5-3

- HSAG requested records to be procured by all participating MCEs, for a total of 1,644 cases. While all MCEs completed and submitted tracking sheets associated with the requested cases, more than 15.0 percent included no medical/dental record documentation associated with the requested cases. An overall rate of 84.4 percent (1,388 cases) had medical/dental record documentation submitted by the MCEs.
- Of the requested 1,644 sample members, 256 medical/dental records (15.6 percent) were not submitted for various reasons. Overall, some commonly cited reasons for non-submission were "non-responsive provider" or "provider did not respond in a timely manner" (89.5 percent) and "record not available at the facility" (4.7 percent). Of note, due to one of the MCEs having difficulties procuring the requested documentation from its providers, DHCFP extended the time frame for all MCEs to procure medical/dental records. Additionally, to encourage providers to comply with the medical/dental records request, DHCFP published Web Announcement 2788 that stated the following: 5-6

The Division of Health Care Financing and Policy's (DHCFP's) External Quality Review Organization (EQRO), Health Services Advisory Group (HSAG), is conducting the Fiscal Year 2021–2022 Encounter Data Validation Study. As part of the study, Managed Care Entities (MCEs) are required to provide clinical records documentation for a specified sample of Medicaid recipients. This study is a required activity. The DHCFP asks that all providers comply with the requests received from the MCEs within the time frames specified.

• Among the 1,388 records received with dates of service from the original sample cases, 464 records (33.4 percent) had a second date of service submitted to HSAG according to the tracking sheet. Please note that a 100.0 percent submission rate is not expected for the second date of service because the member may not have had a second date of service with the same rendering provider within the study period.

5-6

⁵⁻⁶ Division of Health Care Financing and Policy. Web Announcement 2788. Available at: web announcement 2788 20220525.pdf (nv.gov). Accessed on: Nov 2, 2022.



Encounter Data Completeness

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

A medical/dental record omission occurred when an encounter data element (i.e., *Date of Service*, *Diagnosis Code*, *Procedure Code*, or *Procedure Code Modifier*) was not supported by documentation in the medical/dental record or the medical/dental 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*, or *Procedure Code Modifier*) was documented in a member's medical/dental record but not present in the associated electronic encounter data. Encounter omissions also suggest opportunities for improvement in the areas of submission of claims encounters and/or the transmission of medical/dental service data between the providers, MCEs, and DHCFP.

HSAG evaluated the medical record and the encounter data omission rates for each MCE using the 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/dental 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.

As noted in the methodology section, since an equal number of cases were selected from each MCE to ensure an adequate sample size when reporting rates at the MCE level, HSAG made adjustments to calculate the statewide rates associated with the MCOs' data elements that were evaluated to account for population differences among the MCOs for medical record review. Of note, since **LIBERTY** is the only DBA in the study, **LIBERTY**'s rates represented the statewide rates for dental record review. HSAG weighted each MCO's raw rates based on the volume of professional visits among the eligible population for that MCO. This approach ensured that no MCO was over- or underrepresented in the statewide rates.

Date of Service Completeness

Table 5-4 presents the percentage of dates of service identified in the encounter data that were not supported by the members' medical/dental records provided by each of the participating MCEs (i.e., medical/dental record omission) and the percentage of dates of service from the members' medical/dental records that were not found in the encounter data provided by each participating MCE (i.e., encounter data omission). HSAG conducted the analysis at the date-of-service level.



Table 5-4—Medical/Dental Record Omission and Encounter Data Omission for Date of Service

	Medical/Dental Record Omission		Encounter Data Omission		
МСЕ	Date of Service Identified in the Encounter Data	Percent Not Supported by Members' Medical/Dental Records*	Date of Service Identified in Percent Not Members' in the Enco Medical/Dental Data* Records		
MCO Medical Reco	ord Omission and Enco	ounter Data Omission			
Anthem	529	13.4%	479	4.4%	
HPN	611	0.7%	639	5.0%	
SilverSummit	472	40.7%	282	0.7%	
Statewide	1,612	10.3%	1,400 4.3%		
DBA Dental Record Omission and Encounter Data Omission					
LIBERTY	483	4.3%	485	4.7%	

^{*} Lower rates indicate better performance.

Key Findings: Table 5-4

- Statewide, 10.3 percent and 4.3 percent of the dates of service in the encounter data were not supported by the members' medical records (i.e., medical record omission) or dental records (i.e., dental record omission), respectively.
 - SilverSummit had the highest medical record omission rate at 40.7 percent compared to the other participating MCEs. This trend is consistent relative to the medical/dental record submission rate, where an MCE with a relatively lower medical/dental record submission rate would generally show higher medical/dental record omission rate (i.e., poor performance) for each key data element.
- Statewide, 4.3 percent and 4.7 percent of the dates of service in the medical records and dental records, respectively, were not found in DHCFP's encounter data (i.e., encounter data omission).
 - For the MCOs, the medical record omission rate was higher than the encounter data omission rate. This is partially because not all sample cases had a second date of service (refer to Table 5-3). The denominator for encounter data omission is the number of dates of service identified in the medical records, and the numerator is the number of dates of service with no evidence of submission in the encounter data. If no second date of service was available in the medical records, then no date of service would be contributed to the numerator.
 - SilverSummit had the lowest encounter data omission rate at 0.7 percent compared to the other participating MCEs.



Diagnosis Code Completeness

Table 5-5 presents the percentage of diagnosis codes identified in the encounter data that had no supporting documents in the members' medical records (i.e., medical record omission) and the percentage of diagnosis codes from members' medical records that were not found in the encounter data (i.e., encounter data omission).

Note: The review of this data element is not applicable for dental encounters.

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

	Medical Record Omission		Encounter Data Omission	
МСЕ	Number of Diagnosis Codes Identified in Encounter Data Percent Not Documented in the Members' Medical Records*		Number of Diagnosis Codes Identified in Members' Medical Records	Percent Not Found in the Encounter Data*
MCO Medical Reco	ord Omission and Enco	ounter Data Omission		
Anthem	1,393	17.3%	1,188	3.0%
HPN	1,651	3.6%	1,636	2.8%
SilverSummit	1,308	42.0%	767	1.0%
Statewide	4,352	13.5%	3,591	2.7%

^{*} Lower rates indicate better performance.

Key Findings: Table 5-5

- Statewide, 13.5 percent of the diagnosis codes in the encounter data had no supporting documentation in the members' medical records (i.e., medical record omission).
 - All three MCEs had substantial difference in the rate of medical record omission for diagnosis codes, with rates ranging from 3.6 percent (HPN) to 42.0 percent (SilverSummit). HPN had a significantly lower percentage of diagnosis codes in the encounter data with no supporting documentation in the members' medical records compared to both Anthem and SilverSummit.
 - The medical record omission for diagnosis codes was partially influenced by medical record 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. Among records wherein diagnosis codes were considered medical record omissions, approximately 83.0 percent were due to HSAG not receiving medical records or the medical records not supporting the sampled date of service. In general, lower medical record omission rates for diagnosis codes were observed for MCEs with higher rates of medical record submission. Additionally, MCEs with higher medical record omission for dates of service also tended to have higher medical record omission for diagnosis codes.



- For cases with medical records to validate the date of service, diagnosis codes frequently included in the encounter data but not supported in the members' medical records included:
 - o Z23: Encounter for immunization; Frequency = 15
 - Z418: Encounter for other procedures for purposes other than remedying health state;
 Frequency = 6
 - o F17210: Nicotine dependence, cigarettes, uncomplicated; Frequency = 5
 - Z0110: Encounter for examination of ears and hearing without abnormal findings;
 Frequency=5
 - Z6852: Body mass index (BMI) pediatric, 5th percentile to less than 85th percentile for age;
 Frequency=5
 - o Z713: Dietary counseling and surveillance; Frequency=5
- Statewide, 2.7 percent of the diagnosis codes identified in the medical records were not found in the encounter data (i.e., encounter data omission).
 - Both **Anthem** and **HPN** had a slightly higher percentage of diagnosis codes identified in the medical records that were not found in the encounter data compared to **SilverSummit**.
 - The trends for the encounter data omission rates for the *Diagnosis Code* data element and the encounter data omission rates for the *Date of Service* data element for these MCEs were similar, indicating that the omission of dates of service from the encounter data was the primary factor contributing to the high rate of diagnosis code encounter data omissions.

Procedure Code Completeness

Table 5-6 presents the percentage of procedure codes identified in the encounter data that had no supporting documents in the members' medical/dental records (i.e., medical/dental record omission) and the percentage of procedure codes from members' medical/dental records that were not found in the encounter data (i.e., encounter data omission). HSAG conducted the analysis at the procedure-code level.

Table 5-6—Medical/Dental Record Omission and Encounter Data Omission for Procedure Code

	Medical/Dental Record Omission		Encounter Data Omission	
MCE	Percent Not Number of Procedure Codes Identified in Encounter Data Percent Not Documented in the Members' Medical/Dental Records*		Number of Procedure Codes Identified in Members' Medical/Dental Records	Percent Not Found in the Encounter Data*
MCO Medical Rec	ord Omission and Enc	ounter Data Omission		
Anthem	932	21.8%	963	24.3%
HPN	1,168	13.0%	1,257	19.2%
SilverSummit	1,056	43.3%	683	12.3%



	Medical/Dental	Record Omission	Encounter Data Omission			
MCE	Number of Procedure Codes Identified in Encounter Data	odes Identified in Members'		Percent Not Found in the Encounter Data*		
Statewide	3,156	19.9%	2,903 20.6%			
DBA Dental Record Omission and Encounter Data Omission						
LIBERTY	2,620	11.0%	3,049	23.5%		

^{*} Lower rates indicate better performance.

Key Findings: Table 5-6

- Statewide, 19.9 percent and 11.0 percent of the procedure codes identified in the encounter data were not supported by the members' medical records (i.e., medical record omission) or dental records (i.e., dental records), respectively.
 - In the analysis, when no medical or dental records were submitted for the sampled date of
 service, all procedure codes associated with that date of service were treated as medical record or
 dental record omissions. Similarly, for cases identified as a medical or dental record omission for
 dates of service, all procedure codes associated with those cases were also treated as medical
 record omissions.
 - o Approximately 47.0 percent and 7.0 percent of procedure codes were counted as medical record and dental record omissions, respectively, due to non-submission of medical or dental records or documents submitted not supporting the sampled date of service.
 - Among the MCOs, the rates of medical record omission for procedure codes ranged from 13.0 percent (HPN) to 43.3 percent (SilverSummit). HPN had a significantly lower percentage of procedure codes in the encounter data with no supporting documentation in the members' medical records compared to both Anthem and SilverSummit, while LIBERTY had a dental record omission rate of 11.0 percent.
 - For cases with medical records to validate the date of service, procedure codes that were frequently omitted from the members' medical records included:
 - 99213: Established patient office or other outpatient visit, 20–29 minutes; Frequency=33
 - G0447: Behavioral counseling for obesity; Frequency=30
 - 96110: Developmental testing; limited (e.g., Developmental Screening Test II, Early Language Milestone Screen), with interpretation and report; Frequency=22
 - 99212: Established patient office or other outpatient visit, 10–19 minutes; Frequency=16
 - For cases with dental records to validate the date of service, dental procedure codes that were frequently omitted from the members' dental records included:
 - D1351: Dental procedure for dental sealant per tooth; Frequency=44



- D9999: Unspecified adjunctive procedure, by report; Frequency=27
- D0999: Unspecified diagnostic procedure, by report; Frequency=19
- D1206: Professionally applied fluoride varnish; Frequency=16
- D1120: Prophylaxis—child age 13 years or younger; Frequency=15
- D0230: Intraoral—periapical each additional file; Frequency=14
- Other potential contributors for the procedure code medical record omissions included:
 - Provider did not document the services performed in the medical/dental record, despite submitting the procedure code to the MCEs.
 - Provider did not perform the service that was submitted to the MCEs.
- Statewide, 20.6 percent and 23.5 percent of the procedure codes identified in the medical and dental records, respectively, were not found in the encounter data (i.e., encounter data omission).
 - Among the MCOs, **Anthem** had a higher percentage of procedure codes identified in the medical records that were not found in the encounter data.
 - The statewide encounter data omission rate for the *Procedure Code* data element (20.6 percent) and dental encounter data omission rate for the *Procedure Code* data element (23.5 percent) exceeded the statewide and dental encounter data omission rates for the *Date of Service* data element (4.3 percent and 4.7 percent, respectively), indicating that the omission of dates of service from the encounter data was one factor contributing to procedure code encounter data omissions. Other potential contributors for procedure code encounter data omissions included:
 - o Provider made a coding error or did not submit the procedure code, despite performing the services.
 - Lag occurred between provider providing the service and the submission of the encounter data to the MCEs and/or DHCFP.
 - For cases with medical records to validate the date of service, procedure codes frequently included in the members' medical records but not found in DHCFP's encounters included:
 - 90461: Immunization administration through 18 years of age via any route of administration, with counseling by physician or other qualified healthcare professional; each additional vaccine/toxoid component (list separately in addition to code for primary procedure); Frequency=147
 - o 90686: Inactivated Influenza Vaccine, quadrivalent (IIV4), split virus, preservative free, 0.5-mL dosage, for intramuscular use; Frequency=58
 - 90472: Immunization administration (includes percutaneous, intradermal, subcutaneous, or intramuscular injections), each additional vaccine (single or combination vaccine/toxoid);
 Frequency=34
 - o 90670: Pneumococcal vaccine provides protection against infections of the lungs, blood, and brain.; Frequency=21
 - For cases with dental records to validate the date of service, procedure codes frequently included in the members' dental records but not found in DHCFP's encounters included:
 - o D0230: Intraoral—periapical each additional film; Frequency=172



- o D1330: Dental procedure for oral hygiene instruction; Frequency=171
- o D0350: Oral/facial images (including intra- and extra-oral images); Frequency=48
- D0603: Dental procedure for caries risk assessment and documentation, with a finding of high risk—1 every 3 years; Frequency=43

Procedure Code Modifier Completeness

Table 5-7 presents the percentage of procedure code modifiers identified in the encounter data that had no supporting documents in the members' medical records (i.e., medical record omission) and the percentage of procedure code modifiers from the members' medical records that were not found in the encounter data (i.e., encounter data omission).

Note: The review of this data element is not applicable to dental encounters.

Table 5-7—Medical Record Omission and Encounter Data Omission for Procedure Code Modifiers

	Medical Record Omission		Encounter Data Omission	
MCE	Number of Procedure Code Modifiers Identified in Encounter Data Percent Not Documented in Members' Medical Records*		Number of Procedure Code Modifiers Identified in Members' Medical Records	Percent Not Found in Encounter Data*
MCO Medical Rec	ord Omission and End	ounter Data Omission	1	
Anthem	444	31.1%	317	3.5%
HPN	539	29.3%	394	3.3%
SilverSummit	389	54.0%	182	1.6%
Statewide	1,372	32.7%	893	3.2%

^{*} Lower rates indicate better performance.

Key Findings: Table 5-7

- Statewide, 32.7 percent of the procedure code modifiers identified in the encounter data were not supported by the members' medical records.
 - All three MCEs demonstrated substantial difference in the rate of medical record omission for procedure code modifiers, with rates ranging from 29.3 percent (HPN) to 54.0 percent (SilverSummit). HPN had the lowest percentage of procedure code modifiers in the encounter data with no supporting documentation in the members' medical records compared to both Anthem and SilverSummit.
 - The statewide medical record omission rate for the procedure code modifiers could have been attributed to several factors, including medical record non-submission for which subsequent procedure codes and procedure code modifiers were treated as medical record omissions: omitted procedure codes for which associated procedure code modifiers were also omitted; and providers



- not documenting the evidence related to the modifiers in the medical records despite submitting the modifiers to the MCEs.
- The procedure code modifiers most frequently found in the encounter data but not documented in the 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).
- Statewide, 3.2 percent of the procedure code modifiers identified in the medical records were not found in DHCFP's encounter data.
 - Both Anthem and HPN had a slightly higher percentage of procedure code modifiers identified
 in the medical records that were not found in the encounter data compared to SilverSummit.
 - Potential contributors for the procedure code modifier encounter data omissions included the following:
 - O Dates of service were omitted from the encounter data; therefore, all procedure code modifiers associated with those dates of service were treated as encounter data omissions.
 - o Procedure codes were omitted from the encounter data; therefore, all procedure code modifiers corresponding to those procedure codes were treated as encounter data omissions.
 - o Provider made a coding error or did not submit the procedure code modifiers despite providing the specific services.

Encounter Data Accuracy

Encounter data accuracy was evaluated for dates of service that existed in both DHCFP's encounter data and the submitted medical/dental 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/dental record supported the values contained in the electronic encounter data. **Higher accuracy rates for each data element indicate better performance.**

Diagnosis Code Accuracy

Table 5-8 presents the percentage of diagnosis codes associated with validated dates of service from the encounter data that were correctly coded based on the members' medical records. In addition, errors found in the diagnosis coding were separated into two categories: inaccurate coding and specificity error. Inaccurate coding occurred when the diagnosis code submitted by the provider should have been selected from a different family of codes based on the documentation in the medical record (e.g., R51 [headache] versus the documentation supporting G43 [migraine]). A specificity error occurred when the documentation supported a more specific code than was listed in DHCFP'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 may also include diagnosis codes that do not have the required fourth or fifth digit.

Inaccurate coding and specificity errors in medical records were collectively considered as the denominator for the error type rates in Table 5-8.



Note: The review of this data element is not applicable to dental encounters.

Table 5-8—Accuracy Results and Error Types for Diagnosis Code

	Accuracy Results Present in Both Sources Accuracy Rate Inaccurate Coding		Error Type Rate	
MCE			Percent From Specificity Error	
MCO Accuracy R	esults			
Anthem	1,152	99.6%	100.0%	0.0%
HPN	1,591	99.7%	100.0%	0.0%
SilverSummit	759	99.7%	100.0%	0.0%
Statewide	3,502	99.7%	100.0%	0.0%

Key Findings: Table 5-8

- Statewide, 99.7 percent of the diagnosis codes were accurate when they were present in both the encounter data and the medical records.
- All three MCEs had similarly high rates of accuracy for diagnosis codes, with a rate of at least 99.6 percent.
- For diagnosis coding inaccuracy, all error types were due to discrepancies between submitted codes and the National Correct Coding Initiative (NCCI) coding standards.

Procedure Code Accuracy

Table 5-9 presents the percentage of procedure codes associated with validated dates of service from the encounter data that were correctly coded based on the members' medical records. In addition, errors found in the procedure coding associated with the medical record reviews were separated into three categories:

- Higher level of service in the medical record: Evaluation and management (E&M) codes documented in the medical record reflected a higher level of service performed by the provider than the E&M codes submitted in the encounter. 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, for example 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 lower level of service, or 99212 (established patient self-limited or minor problem).

• Inaccurate coding: The documentation in the medical/dental 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 level of services, and codes with lower level of services in medical records were collectively considered as the denominator for the error type rates in Table 5-9.

Of note, for dental record review, errors in coding were only related to codes that were inaccurately coded. As such, there is no other error category to present.

Accuracy Results Error Type Rate Number of Percent From Percent From Percent From Procedures Higher Level of Lower Level of MCE Accuracy Rate Inaccurate **Present in Both Services in** Services in Coding **Medical Records Medical Records Sources MCO Accuracy Results** 729 **Anthem** 96.6% 84.0% 0.0%16.0% **HPN** 97.2% 1,016 96.4% 0.0% 3.6% **SilverSummit** 599 99.0% 0.0% 0.0% 100.0% 0.0% Statewide 97.1% 2,344 91.6% 8.4% **DBA Accuracy Results** LIBERTY 2,333 88.6% 100.0% NA NA

Table 5-9—Accuracy Results and Error Types for Procedure Code

NA indicates error type is not applicable for dental record review.

Key Findings: Table 5-9

- Statewide, among the MCOs, 97.1 of the procedure codes were accurate when present in both the encounter data and the medical records. The MCEs' rates were relatively similar with at least 96.0 percent accuracy. The dental procedure code accuracy rate was lower at 88.6 percent.
- For the MCOs' procedure coding accuracy, 91.6 percent of the identified errors were associated with inaccurate coding. The top two inaccurate procedure codes were 90460 and 90472, which should have been replaced by the correct codes 90471 and 90461, respectively, since 90460 and 90461 are used for immunization administration through 18 years of age. Secondly, 8.4 percent of the identified errors resulted from providers submitting codes for a higher level of service than was supported and documented in the medical records (i.e., the procedure code was considered in error due to a lower level of service having been documented in the medical record). Lastly, no errors



were associated with providers submitting codes for a lower level of service than was documented in the members' medical records (i.e., procedure code was considered an error due to a higher-level procedure code having been documented in the medical record).

• For dental procedure coding accuracy, 100.0 percent of the identified errors were associated with inaccurate coding. The top inaccurate dental procedure code was D0230, which should have been replaced by the correct code D0220 or D0240, followed by D1206 which should have been replaced by D1208.

Procedure Code Modifier Accuracy

Table 5-10 presents the percentage of procedure code modifiers associated with validated dates of service from the encounter data that were correctly coded based on members' medical records. The errors for this data element could not be separated into subcategories and therefore are not presented in Table 5-10.

Note: The review of this data element is not applicable for dental encounters.

Number of Procedure Code MCE Accuracy Rate Modifiers Present in Both Sources MCO Accuracy Results Anthem 306 100.0% HPN 99.7% 381 179 **SilverSummit** 100.0% Statewide 866 99.9%

Table 5-10—Accuracy Results for Procedure Code Modifier

Key Findings: Table 5-10

- Statewide, 99.9 percent of the procedure code modifiers were accurate when they were present in both the encounter data and the members' medical records.
- All three MCEs had high levels of accuracy for the procedure code modifiers at 100.0 percent for both **Anthem** and **SilverSummit** and 99.7 percent for **HPN**.

All-Element Accuracy

Table 5-11 presents the percentage of dates of service present in both DHCFP's encounter data and in the medical/dental records with the same values for all key data elements listed in Table 2-2. 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 DHCFP's encounter data when compared to the medical/dental records.



Table 5-11—All-Element Accuracy

MCE	Number of Dates of Service Present in Both Sources	Accuracy Rate			
MCO All-Element Accuracy					
Anthem	458	51.3%			
HPN	607	63.1%			
SilverSummit	280	66.8%			
Statewide	1,345	58.6%			
DBA All-Element Accuracy					
LIBERTY	462	19.0%			

Key Findings: Table 5-11

- Statewide, among the MCOs, 58.6 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*). The relatively low statewide all-element accuracy rates were caused by the medical record omission, encounter data omission, and element inaccuracy from all three key data elements, with *Procedure Code* contributing the most and *Procedure Code Modifier* contributing the least.
- For the DBA **LIBERTY**, only 19.0 percent of the dates of service present in both data sources contained accurate values for data element *Procedure Code*. The low all-element accuracy rate was caused by the dental record omission, encounter data omission, and element inaccuracy for the data element *Procedure Code*.





Conclusions

This section provides conclusions from each of the three activities conducted for the EDV study.

Information Systems Review

The IS review component of the EDV study provided self-reported qualitative information from the two MCEs reviewed, **SilverSummit** and **LIBERTY**, regarding the encounter data processes related to collection, processing, and transmission of encounter data to DHCFP. The modular structure of the encounter data processing systems ensures that:

- MCEs can submit data and receive feedback about accuracy, completeness, and timeliness.
- EDI file compliance and validation checks are performed on encounter data (i.e., files are in valid formats, data are checked for HIPAA compliance and prepared for business rules processing).
- Data are validated against the business rules engine.
- Data analyses for program management and decision support are run.

Based on contractual requirements and DHCFP's data submission requirements (e.g., companion guides), both **SilverSummit** and **LIBERTY** demonstrated their capability to collect, process, and transmit encounter data to DHCFP, as well as develop data review and correction processes that can respond to quality issues identified by DHCFP. Additionally, **SilverSummit** also described the systems/subcontractor oversight and data remediation activities in place to ensure the completeness and accuracy of data submitted to **SilverSummit** or processed on its behalf.

Comparative Analysis

For the comparative analysis component of the EDV study, HSAG evaluated the professional, institutional, and pharmacy encounters of the MCOs (Anthem, HPN, and SilverSummit) and the dental encounters of the DBA (LIBERTY). HSAG evaluated encounter data from both DHCFP and the MCEs with dates of service from January 1, 2020, through December 31, 2020, to assess the accuracy and completeness of the encounter data.

Throughout the comparative analysis section, lower rates indicate better performance for omission and surplus rates, while higher rates indicate better performance for accuracy rates.

Record completeness

HSAG evaluated the record-level data completeness of DHCFP's encounter data by investigating the record omission and record surplus rates in DHCFP's data compared to each MCE's data.



The overall omission rate for professional encounters was 5.8 percent, and the surplus rate was 1.3 percent. **Anthem**'s professional record omission rate was 10.4 percent; this high omission rate appeared generally to be due to **Anthem**-submitted files containing records that were not in their final status (i.e., they included adjustment history records). The overall record omission and surplus rates for institutional encounters were 11.6 percent and 4.3 percent, respectively. **Anthem**'s institutional encounter record omission rate of 21.1 percent contributed to the higher overall omission rate compared to other encounter types. For pharmacy encounters, the overall record omission and surplus rates were 0.2 percent and 13.3 percent, respectively. All three MCOs that were part of this study consistently exhibited surplus rates greater than 10.0 percent. It appeared that DHCFP-submitted pharmacy encounters contained records that were not in their final status, resulting in those records being identified as surplus. The overall record omission and surplus rates for dental encounters were 1.8 percent and 1.0 percent, respectively. **LIBERTY**'s dental encounters and **SilverSummit**'s professional encounters exhibited the most complete data, both with record omission and surplus rates less than 2.0 percent, when the two data sources (i.e., DHCFP- and MCE-submitted files) were compared.

Data Element Completeness

HSAG evaluated element-level completeness of DHCFP's encounter data by the element omission and element surplus rates for key data elements relevant to each encounter type. The overall element omission and surplus rates for professional encounters were less than 1.5 percent and less than 1.0 percent, respectively, for all key data elements with a few exceptions: *Billing Provider NPI* had an overall element omission rate of 3.4 percent, and *Rendering Provider NPI*, *Referring Provider NPI*, and *Secondary Diagnosis Code* each had overall surplus rates greater than 10.0 percent.

For institutional encounters, the overall element omission and surplus rates were less than 2.5 percent and less than 4.0 percent, respectively, for all key data elements except *Secondary Diagnosis Code* and *Primary Surgical Procedure Code* data elements, with overall surplus rates of 5.2 percent and 5.5 percent, respectively. For both of these data elements, **Anthem**'s relatively high surplus rates contributed to the high overall element surplus rates. While HSAG was unable to determine or confirm the root cause of the discrepancy, it appears that the discrepancy may have resulted from errors in extracting the data for the study.

Overall, the data element omission and surplus rates for all MCEs were 1.0 percent or less for all key data elements that were evaluated for pharmacy encounters. The data element omission and surplus rates for **LIBERTY** were less than 1.0 percent for all key data elements that were evaluated for dental encounters, except *Billing Provider NPI* with an element omission rate of 5.2 percent. Among records wherein *Billing Provider NPI* values were included in **LIBERTY**-submitted data but not in DHCFP-submitted data, more than 35.0 percent were for one NPI.

Data Element Accuracy

HSAG determined data element accuracy by comparing the values of key data elements for records with data present in both DHCFP's and the MCEs' records. Fourteen of the 16 key data elements evaluated for professional encounters had an overall accuracy rate of at least 98.0 percent. *Secondary Diagnosis*



Code and Drug Quantity data elements exhibited lower accuracy rates (i.e., 66.6 percent and 71.9 percent, respectively).

For institutional encounters, 11 of the 19 key data elements that were evaluated each had an overall accuracy rate of at least 95.0 percent. *Detail Service From Date, Detail Service To Date, Referring Provider NPI, Secondary Diagnosis Code, Procedure Code, Primary Surgical Procedure Code, Secondary Surgical Procedure Code,* and *Drug Quantity* data elements exhibited lower accuracy, with rates ranging from 4.4 percent to 93.3 percent, compared to all other data elements.

The pharmacy data element accuracy rates for all MCEs were at least 98.0 percent for all key data elements except **Anthem**'s *Paid Amount* data element accuracy rate (94.6 percent).

The dental data element accuracy rates for **LIBERTY** were at least 97.0 percent for all key data elements that were evaluated. The *Billing Provider NPI* data element demonstrated the lowest data element accuracy rate, 97.6 percent, compared to other data elements evaluated for dental encounters.

All-Element Accuracy

HSAG determined all-element accuracy by evaluating the records present in both data sources with exactly the same values (missing or non-missing) for all data elements relevant to each encounter type. Higher all-element accuracy rates indicate that the values populated in DHCFP's data warehouse were more complete and accurate for all key data elements. Both pharmacy and dental encounters had relatively high overall all-element accuracy rates (96.6 percent and 91.4 percent, respectively). In contrast, professional and institutional encounters had relatively low all-element accuracy rates (40.9 percent and 45.7 percent, respectively), which were mainly due to a few data elements that had low element accuracy rates.

Medical/Dental Record Review

The medical/dental record review activity evaluated encounter data completeness and accuracy through a review of medical/dental records for physician/dentist services rendered from January 1, 2020, through December 31, 2020.

Encounter Data Completeness

Table 6-1 displays the medical/dental record omission and encounter data omission rates for each key data element from the medical/dental record review activity.

Table 6-1—Medical/Dental Record Review: Encounter Data Completeness Summary

Data Elements		DBA			
Data Elements	Statewide	Anthem	HPN	SilverSummit	LIBERTY
Medical/Dental Record Omission					
Date of Service	10.3%	13.4%	0.7%	40.7%	4.3%



Data Flamanta	мсо				DBA
Data Elements	Statewide	Anthem	HPN	SilverSummit	LIBERTY
Diagnosis Code	13.5%	17.3%	3.6%	42.0%	NA
Procedure Code	19.9%	21.8%	13.0%	43.3%	11.0%
Procedure Code Modifier	32.7%	31.1%	29.3%	54.0%	NA
Encounter Data Omission					
Date of Service	4.3%	4.4%	5.0%	0.7%	4.7%
Diagnosis Code	2.7%	3.0%	2.8%	1.0%	NA
Procedure Code	20.6%	24.3%	19.2%	12.3%	23.5%
Procedure Code Modifier	3.2%	3.5%	3.3%	1.6%	NA

NA indicates that the data element was not applicable for dental record review.

The final sample cases included in the evaluation consisted of 411 cases randomly selected per MCE, along with any submitted second dates of service for each sampled member. Two indicators were evaluated for encounter data completeness:

- Medical/dental record omission occurred when an encounter data element was not documented in the medical/dental record associated with a specific encounter.
- Encounter data omission occurred when an encounter data element was documented in the medical/dental record but not found in the associated encounters.

Overall, the medical record omission rates were higher than the encounter data omission rates for three of the key data elements (i.e., *Date of Service*, *Diagnosis Code*, and *Procedure Code Modifier*), while the *Procedure Code* medical record omission rate was slightly lower than the encounter data omission rate. In contrast, the dental record omission rates were consistently lower than the encounter data omission rates for both data elements (i.e., *Date of Service* and *Procedure Code*). The dates of service for the professional and dental encounter data were generally supported by the members' medical and dental records, as evidenced by the medical and dental record omission rates of 10.3 percent and 4.3 percent, respectively. However, the *Diagnosis Code* (13.5 percent), *Procedure Code* (19.9 percent for medical and 11.0 percent for dental), and *Procedure Code Modifier* (32.7 percent) data elements within the encounter data were moderately supported by the medical/dental records. As determined during the review, some common reasons for medical/dental record omissions included:

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

Both **Anthem** and **SilverSummit** had significantly higher medical record omission rates for the *Date of Service*, *Diagnosis Code*, and *Procedure Code* data elements when compared to **HPN**'s rates, while



SilverSummit's rate for *Procedure Code Modifier* was also higher when compared to **Anthem**'s and **HPN**'s rates. In contrast **LIBERTY**'s *Date of Service* and *Procedure Code* dental record omission rates were relatively low.

Encounter Data Accuracy

Table 6-2 displays the element accuracy rates for each key data element and the all-element accuracy rates.

MCO DBA **Data Elements Statewide Error Type** Statewide **Anthem HPN** SilverSummit LIBERTY Incorrect Code (100.0%); 99.7% 99.7% Diagnosis Code 99.6% 99.7% NA Specificity Error¹ (0.0%) Incorrect Code (91.6%); Lower Level of Services in Procedure Code 97.1% 96.6% 97.2% 99.0% 88.6% Medical Records (8.4%); Higher Level of Services in Medical Records (0.0%) Procedure Code 99.9% 100.0% 99.7% 100.0% NA Modifier All-Element Accuracy 58.6% 51.3% 63.1% 66.8% 19.0%

Table 6-2—Encounter Data Accuracy Summary

Overall, when key data elements were present in both DHCFP professional encounter data and the medical records and were evaluated independently, the data element values were found to be accurate. Among the data elements evaluated, 99.7 percent of diagnosis codes, 97.1 percent of procedure codes, and 99.9 percent of procedure code modifiers present in both sources were accurate. However, when key data element *Procedure Code* was present in DHCFP's dental encounter data and the dental records, the data element were less accurate, with an 88.6 percent accuracy rate. The inaccurate dental procedure codes that were identified included D0230 and D1206; D0230 should have been replaced by D0220 or D0240, while D1206 should have been replaced by D1208.

Statewide, among the MCOs, 58.6 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*). The relatively low statewide all-element accuracy rates were caused by the medical record omission, encounter data omission, and element inaccuracy from all three key data elements, with *Procedure Code* contributing the most and *Procedure Code Modifier* contributing the least. For **LIBERTY**, the DBA, only 19.0 percent of the dates of service present in both data sources contained accurate values for data element *Procedure Code*. The low all-element accuracy rate was caused by the

NA indicates that the data element was not applicable for dental record review.

[&]quot;—" denotes that the error type analysis was not applicable to a given data element.

¹ Specificity errors occurred when the documentation supported a more specific code than was listed in DHCFP's encounter data. Specificity errors also include diagnosis codes that do not have the required fourth or fifth digit.



dental record omission, encounter data omission, and element inaccuracy for the data element *Procedure Code*.

Recommendations

To improve the quality of encounter data submissions from the MCEs, HSAG offers the following recommendations for each component of the EDV study to assist DHCFP and the MCEs in addressing opportunities for improvement:

Information Systems Review

- While SilverSummit and LIBERTY, the two MCEs that were reviewed, had processes for monitoring accuracy, completeness, and timeliness of claims and encounter data prior to submissions to DHCFP, HSAG was unable to identify that these MCEs conducted chart review as part of their validation to ensure accuracy and completeness. As such, HSAG recommends that the MCEs conduct a standardized validation of encounter data using medical/dental record reviews. Additionally, DHCFP could:
 - Develop an annual process to assess the MCEs' data validation capacity and capabilities among encounters submitted to DHCFP, as well as to ensure the MCEs' accountability for claims and encounter data validation.
 - Establish validation guidelines including medical/dental records for use by the MCEs in conducting their internal validation. The guidelines may assist with improving the quality of encounter data submitted by the MCEs to DHCFP and may include, but not be limited to, record sampling, reporting requirements, and file format to guide the MCEs in conducting the internal validation. Conduct evaluations of MCE annual validation activities, providing feedback to MCEs and corrective actions when appropriate.

Comparative Analysis

- The results from the comparative analysis indicated that encounters submitted by the MCEs and maintained in DHCFP's data warehouse were relatively complete and accurate when compared to data submitted to HSAG by the MCEs. However, HSAG recommends that DHCFP continue its efforts to monitor encounter data submissions and address any identified data issues with the MCEs' encounter file submissions.
- HSAG identified that the MCEs had errors in the data files extracted for the study (e.g., the *Drug Quantity* data element having the same values as the *Units of Service* data element values). HSAG recommends that the MCEs implement standard quality controls to ensure accurate data extracts from their respective systems. Through the development of standard data extraction procedures and quality control, the number of errors associated with extracted data could be reduced.
- While the comparative analysis results indicated a high degree of element completeness and accuracy for most key data elements evaluated across all encounters, the results also indicated that



there were key elements with high surplus rates (e.g., *Rendering Provider NPI*) and/or low accuracy rates (e.g., *Secondary Diagnosis Code*). These discrepancies may be related to DHCFP's internal processing and extraction of the data within its data warehouse. As such, for future EDV studies, to help improve the data requests and submissions for the study, HSAG recommends working more collaboratively with the DHCFP staff members responsible for processing encounters at the initiation of the study. This will help HSAG to better understand DHCFP's internal processing so that information can be shared with the MCEs when requesting data for the study. This will also ensure DHCFP, HSAG, and the MCEs have a shared understanding of how data elements within the encounter type should be reported.

- HSAG recommends for future EDV studies that DHCFP consider a series of follow-up activities
 during the study timeline, designed to assist the MCEs in addressing and resolving encounter data
 issues identified from the comparative analysis component of the study. The follow-up activities
 could include:
 - Distribution of data discrepancy reports to the MCEs identified as having data issues, which
 include a description of key issues for the MCEs to review. Samples of encounters highlighting
 identified issues may also be distributed to further assist the MCEs in reviewing their results.
 - Conducting collaborative technical assistance sessions with the MCEs to discuss data issues identified in the study, whereby root causes of discrepancies can be determined and resolved.

Medical/Dental Record Review

- During record procurement, one MCE noted difficulties in procuring requested records from its contracted provider. To ensure contracted providers' accountability in addressing submission of medical/dental records for auditing, inspection, and examination related to its members, the MCE should consider strengthening and/or enforcing its contract requirements with providers in providing the requested documentation.
- Since the results of the medical/dental record review are dependent on the MCEs' submission of
 complete and accurate supporting documentation, HSAG recommends that DHCFP consider setting
 record submission standards to ensure the MCEs are more responsive in procuring requested records.
 By having MCEs submit complete and accurate documentation and records, results will be more
 representative of the actual documentation available.
- All MCEs should investigate the relatively high encounter data omission rate for data element *Procedure Code* and implement any changes as needed.
- The MCOs should educate their providers regarding the proper use of immunization administration procedure codes 90460, 90461, 90471, and 90472.
- Similarly, the DBA should educate providers regarding the proper use of dental codes D0230, D0220, D0240, D1206, and D1208.
- All MCEs should consider performing periodic medical/dental record reviews of submitted claims to verify appropriate coding and data completeness. Any findings from these reviews would then be provided to providers through periodic education and training regarding encounter data submissions, medical/dental record documentation, and coding practices.



• DHCFP may consider developing standards for the measures included in the medical/dental record review component. For future studies, in collaboration with HSAG, DHCFP may consider developing and implementing processes to evaluate the MCEs' performance and provide results to the MCEs for initial feedback to ensure they understand the measures being evaluated and eventually the associated standards. These standards can potentially be included in DHCFP's contract with the MCEs as part of the validation of the MCEs' encounter data to assess and monitor the MCEs' performance in submitting complete and accurate data to DHCFP.

Study Limitations

- Findings associated with the IS review were based on self-reported questionnaire responses submitted to HSAG by the MCEs. HSAG did not confirm the statements made in the questionnaire.
- The comparative analysis results presented in this study were dependent on the quality of encounter data submitted by DHCFP and the MCEs. Any substantial and systematic errors in the extraction of encounter data may bias the results and compromise the validity and reliability of study findings.
- The findings from the comparative analysis were associated with encounters with dates of service from January 1, 2020, through December 31, 2020. As such, results may not reflect the current quality of DHCFP's and the MCEs' encounter data or changes implemented since January 2021.
- When evaluating results from the medical/dental record review component of the study, it is important to understand the following limitations:
 - Successful evaluation of members' medical/dental records depends on the ability to locate and collect complete and accurate medical/dental records. Therefore, validation results could have been affected by medical/dental records that were not located (e.g., provider not responsive to document requests) and medical/dental records that were incomplete (e.g., submission of a visit summary instead of a complete medical/dental record).
 - Study findings of the medical/dental record review relied solely on the documentation contained in members' medical/dental records; therefore, results are dependent on the overall quality of physicians'/dentists' medical/dental records. For example, a physician/dentist may have performed a service but may not have documented it in the member's medical/dental record. As such, HSAG would have counted this occurrence as a negative finding. This study was unable to differentiate cases in which a service was not performed versus a service that was performed but not documented in the medical/dental record.
 - The findings from the medical/dental record review were associated with encounters with dates of service from January 1, 2020, through December 31, 2020. As such, results may not reflect the current quality of DHCFP's encounter data or changes implemented since January 2021.
 - The findings from the medical/dental record review component of this study are associated with physician/dentist visits based on the professional and dental claim types. As such, findings from the medical/dental record review may not be applicable to other claim types.



Appendix A. Blank Questionnaire for the MCEs

This section contains images of the blank questionnaire sent to the MCOs for the information systems review.



2021-2022 Encounter Data Validation Questionnaire for MCO

Overview

Accurate and complete encounter data are critical to the success of a managed care program. Therefore, the Division of Health Care Financing and Policy (DHCFP), a Division of the State of Nevada, Department of Health and Human Services (DHHS), requires its contracted managed care organizations (MCOs) and its dental benefit administrator (DBA)/prepaid ambulatory health plan (PAHP) to submit high-quality encounter data. DHCFP relies on the quality of these encounter data submissions to accurately and effectively monitor and improve the program's quality of care, generate accurate and reliable reports, develop appropriate capitated rates, and obtain complete and accurate utilization information.

In fiscal year (FY) 2021-2022, DHCFP contracted Health Services Advisory Group, Inc. (HSAG) to conduct an encounter data validation (EDV) study. In alignment with the *CMS EQR Protocol 5 Validation of Encounter Data*¹, HSAG will conduct the EDV study based on three evaluation activities designed to evaluate the completeness and accuracy of DHCFP's encounter data. Together, the different activities for the specific MCOs and/or DBA will provide a comprehensive assessment of DHCFP's encounter data submitted by each MCO and DBA. The three activities are as follows:

- Information systems (IS) review—assessment of DHCFP's and/or MCOs'/DBA's information systems and processes
- Comparative analysis—analysis of DHCFP's electronic encounter data completeness and accuracy
 through a comparison between DHCFP's electronic encounter data and the data extracted from the
 MCOs'/DBA's data systems
- Medical/dental records review—analysis of DHCFP's electronic encounter data completeness and
 accuracy through a comparison between DHCFP's electronic encounter data and the medical/dental
 records. Of note, conducting a medical/dental record review will be contingent upon whether the IS
 review and comparative analysis indicate that the completeness and accuracy of DHCFP's encounter
 data are sufficient.

Since FY 2021-2022 is the first year HSAG will be conducting the EDV study for SilverSummit Healthplan Inc. (SilverSummit), HSAG will include the IS review component of the EDV activity for SilverSummit. The IS review will evaluate and determine whether the MCO's systems can collect and report high quality encounter data. Concurrent with the IS review, HSAG will conduct the comparative analysis for SilverSummit to ascertain whether data are complete and are of high quality in order to proceed with the medical record review component of the EDV activity.

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Department of Health and Human Services, Centers for Medicare & Medicaid Services. Protocol 5 Validation of Encounter Data Reported by the Medicaid and CHIP Medicaid Managed Care Plan. October 2019. Available at: https://www.medicaid.gov/medicaid/quality-of-care/medicaid-managed-care/quality-of-care-external-quality-review/index.html





The IS review will include an evaluation of the MCO's processes for collecting, maintaining, and submitting encounter data to DHCFP and on the strengths and limitations of the MCO's information systems in promoting and maintaining quality encounter data. In alignment with Activity 2: Review the MCP's Capability in the CMS EQR Protocol 5, HSAG has developed the following EDV focused questionnaire to gather information regarding the MCO's information systems and data processing procedures. The IS review will enable HSAG to understand how various systems interact to determine whether such interactions have an impact on the MCOs' ability to submit complete and accurate data.

General Instructions

HSAG developed the following questionnaire customized in collaboration with DHCFP to gather both general information and specific procedures for data processing, personnel, and data acquisition capabilities. The questionnaire is divided into the following four domains:

Section A: Encounter Data Sources and Systems

Section B: Data Exchange Policies and Procedures

Section C: Payment Structures of Encounter Data

Section D: Encounter Data Quality Monitoring and Reporting

SilverSummit must complete all sections of the following questionnaire, providing comprehensive answers to the questions and attaching supporting documentation (e.g., policies and procedures, data layouts, data flow diagrams, sample reports, sample data, etc.), where applicable. If different staff members within your MCO are responsible for different aspects of the processes, please distribute multiple copies of the questionnaire and ensure that each group provides answers to the applicable questions in each section. Responses do not need to be merged into a single final version; uploading multiple sections and documents is acceptable.

Upon evaluating answers to the questionnaire and additional documentation, HSAG's EDV team may conduct additional follow-up with SilverSummit via email or conference calls.

Submission of Questionnaire and Documentation

- SilverSummit should upload the completed questionnaire and supporting documentation electronically to HSAG's Secure Access File Exchange (SAFE) site, https://safe.hsag.com/ in your specific MCO folder and project subfolder labeled "NV SSHP_Encounter Data Validation."
- Please contact Brittani Alley via phone at 602-801-6569 or via e-mail at <u>BAlley@hsag.com</u> for assistance with access to HSAG's SAFE site.
- HSAG requests that SilverSummit upload the completed questionnaires, and any attachments, to HSAG's SAFE site no later than <u>December 1, 2021</u>. Upon completion of upload, please notify Lacey Hinton via e-mail at <u>LHinton@hsag.com</u>.

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FY 2021-2022 Encounter Data Validation: MCO Questionnaire

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•	Please provide the descriptions for the acronyms used in your responses in the table below or spell
	them out when using the acronyms for the first time.

Acronym	Description

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2020-2021 Encounter Data Validation—MCO Focused Questionnaire

Section A: Encounter Data Sources and Systems

MCO Name	
Contact person for this section (Name and Title)	
Contact Information (Phone Number and E-mail)	

Please note that if your staff members use an electronic version of this questionnaire, the response boxes are expandable. Do not worry about pagination. If your MCO uses the same data system for multiple clients or lines of business, please limit your responses to specific procedures related to the processing of DHCFP's claims and encounters. If supplemental files or supporting documents are provided, please note the filename(s) in your response.

1. Using a list or data flow diagram, outline the path your MCO's encounter data follow from the time a member receives a service(s) until the encounter is processed by DHCFP. If the data path differs by or within a claim type, provide a separate list or data flow diagram for each claim type and scenario. Be sure to identify any subcontractors responsible for processing the data and the associated processes with the subcontractors. Note: The first section of the table is provided as an example. The table can be expanded if additional rows are required.

Data Source ¹	Description of Data Flow	Supporting Document(s)
Paper Claims	All paper claims are received via mail. Paper claims are date stamped upon receipt and scanned with optical character recognition (OCR) software and converted to 837 files for electronic processing. The remaining process is the same as the claims in electronic format.	<insert file="" name=""></insert>
Medical		
Pharmacy		
Vision		
Non-Emergency Transportation		
<insert other<br="">subcontractors²></insert>		

¹ These sources represent claims/encounter submissions from the rendering provider to your MCO or subcontractor.

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² Examples include hearing, chiropractic, laboratory, etc.





2. For each key source of data (i.e., all data your MCO receives that are included in the encounter data submissions to DHCFP), provide a description of the files received, the frequency of receipt, and the approximate percentage of claims submitted by capitated versus fee-for-service (FFS) providers. Note: The first section of the table is provided as an example. The table can be expanded if additional rows are required.

Data Source ¹	Description of Data Received (Including Format)	Frequency ²	Approximate Percentage of Claims from Capitated Providers
Pharmacy	We receive point of service claims submitted by retail pharmacies from our vendor, Express Scripts. Files are submitted using the NCPDP D.0 format.	Weekly	65%
Medical in 837 Professional Format			
Medical in 837 Institutional Format			
Pharmacy			
Vision			
Non-Emergency Transportation			
<insert other<br="">subcontractors3></insert>			

¹These sources represent claims/encounter submissions from the rendering provider to your MCO or subcontractor.

 For each key source of data, provide a description of the software used to receive data, validate data, and prepare outbound encounters for submission to DHCFP. Note: The first section of the table is provided as an example. The table can be expanded if additional rows are required.

Data Source ¹	Software Used to Receive Data	Software Used to Validate Data	Software Used to Generate Encounters for DHCFP
Paper claims	Convert to 837 <u>format</u> through an optical character recognition (OCR) software by <insert name=""></insert>	Facets	Encounter Data Manager
Medical in 837 Professional Format			

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² Frequency = Daily, weekly, twice a month, monthly, every other month, etc.

³ Examples include hearing, chiropractic, laboratory, etc.





Data Source ¹	Software Used to Receive Data	Software Used to Validate Data	Software Used to Generate Encounters for DHCFP
Paper claims	Convert to 837 <u>format</u> through an optical character recognition (OCR) software by <insert name=""></insert>	Facets	Encounter Data Manager
Medical in 837 Institutional Format			
Pharmacy			
Vision			
Non-Emergency Transportation			
<insert other<br="">subcontractors2></insert>			

¹ These sources represent claims/encounter submissions from the rendering provider to your MCO or subcontractor.

4. For encounters submitted to DHCFP through 837 professional and institutional formats, please describe the software used for the Electronic Data Interchange (EDI) compliance checks and the Workgroup for Electronic Data Interchange Strategic National Implementation Process (WEDI SNIP) levels that are used in the EDI compliance checks.

Data Source ¹	Software for EDI Compliance Check	WEDI SNIP Level
Vision claims		Levels 1 and 2
Medical in 837 Professional Format		
Medical in 837 Institutional Format		
Vision		
Non-Emergency Transportation		
<insert other="" subcontractors2=""></insert>		

¹ These sources represent claims/encounter submissions from the rendering provider to your MCO or subcontractor.

5. Please specify the modifications, reformatting or changes made to the claims/encounter data to accommodate DHCFP's encounter data submission standards. Describe the modifications or reformatting using specific data field names and examples. If a vendor prepares the encounter data submission for your MCO, please specify the modifications made by the vendor and additional

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² Examples include hearing, chiropractic, laboratory, etc.

² Examples include hearing, chiropractic, laboratory, etc.





modifications made by the MCO separately. Note: The first row of the table is provided as an example. The table can be expanded if additional rows are required.

Data Type	Field	Modification Details	Modification Made By
Vision Claims	Provider ID	Zeros are added to the beginning of values in the Provider ID field to pad the results to a standard length of characters (e.g., 00003126).	МСО

6. Please specify how your MCO prepares/enriches data elements that are not on the claims from providers but required by DHCFP. Describe the source of the data and process to create these data elements. If a vendor prepares the encounter data submission for your MCO, please specify the modifications made by the vendor and additional modifications made by the MCO separately. Note: The first row of the table is provided as an example. The table can be expanded if additional rows are required.

Data Type	Field	Source Data and Creation Process	Modification Made By
Professional Claims	Taxonomy Code	Obtain taxonomy codes from a reference file by linking with provider NPI and procedure code.	мсо

Describe the types of validation performed on claims, the percentage of validated claims, and the
types of claims validated. Note: The first row of the table is provided as an example. The table can
be expanded if additional rows are required.

Types of Claims/Data Elements Validated	Description of Validation Performed	Percentage of Claims Validated
Vision/Diagnosis codes	Validate code is accurate against reference table.	99%
		·

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Types of Claims/Data Elements Validated	Description of Validation Performed	Percentage of Claims Validated

8. Describe any code and/or field mapping performed during data processing and validation prior to adjudicating claims for payment processing, including those maintained by vendors/subcontractors, as appropriate. Note: The first row of the table is provided as an example. The table can be expanded if additional rows are required.

Field	Description of Mapping	Source of Reference Table	Frequency of Updating Reference Table
Rendering Provider NPI	Map to reference table	Provider enrollment file	Quarterly

 Describe any code and/or field mapping performed during data processing for submission to DHCFP, including codes and/or fields maintained by vendors/ subcontractors, as appropriate. Note: The first row of the table is provided as an example. The table can be expanded if additional rows are required.

Field	Description of Mapping	Source of Reference Table	Frequency of Updating Reference Table
Subcontractor ID	Map to correct value assigned by DHCFP for each program and sender	N/A	Whenever change occurs

Describe the process to identify	duplicate claims.	Provide details	on the fields used	to identify
duplicates, where in the process	the duplicates are	e identified, and	how they are han	dled.

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11. Describe the types of clai adjusted claims).	ms/encounters that are not submitted to DHCFP (e.g., paid, denied, voided
	ubmit denied or partially denied claims/encounters to DHCFP. List that denied claims/encounters do not include paid service lines.
	ubmit adjustments/replacements/voids/corrections (collectively referred to iters that have previously been submitted to DHCFP.
as adjustments) to encour 13a. What is the process to identify encounters for which adjustments are	
as adjustments) to encour 13a. What is the process to identify encounters for which adjustments are required? 13b. Describe the process to	ubmit adjustments/replacements/voids/corrections (collectively referred to nters that have previously been submitted to DHCFP.



		EDV QUESTIONNAIRE FOR MC
3c. How long does it take from identification to re- submission for encounters needing adjustments?		
3d. If adjustments are not submitted, describe why these encounters were not submitted.		
. The following questions address th data.	e collection, use, and sul	omission of provider data and enrollmen
	Provider Data	
4a. Data collected and maintained by?	By the MCO	By a subcontractor
4b. List the name of the vendor and the type of data maintained (e.g., Vendor X for all vision services) 4c. List the vendor's responsibilities in		
collecting and maintaining the data 4d. Describe the flow of data from		
collection to maintenance including processes associated with the subcontractor		
processes associated with the		
processes associated with the subcontractor 4e. Describe the process for linking data to claims/encounters including any procedures for reconciling differences between data submitted on the claim/encounter and your	Enrollment data	



HSAG MEATH SERVICES ADVISORY GROUP	EDV Questionnaire for MCO
14g. List the name of the vendor and the type of data maintained (e.g., Vendor X for all vision services)	
14h. List the vendor's responsibilities in collecting and maintaining the data	
14i. Describe the flow of data from collection to maintenance including processes associated with the subcontractor	
14j. Describe the process for linking data to claims/encounters including any procedures for reconciling differences between the data submitted on the claim/encounter and your enrollment data	

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Section B: Data Exchange Policies and Procedures

MCO Name	
Contact person for this section (Name and Title)	
Contact Information (Phone Number and E-mail)	

Please note that if your staff members use an electronic version of this questionnaire, the response boxes are expandable. Do not worry about pagination. If supplemental files or supporting documents are provided, please note the filename in your response.

Describe the encounter data submission process used by your MCO. Include details outlining the
organizational and operational policies and procedures related to your encounter data submissions
and how your MCO enforces the policies and procedures.

What is the frequency of encounter submission to DHCFP?	
List whether encounters are submitted directly or through a vendor/subcontractor.	
1c. Describe the encounter submission process.	
Describe the policies and procedures related to the encounter submission process.	
Measures taken to enforce policies and procedures.	

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List the point(s) of contact at your MCO and their role in the encounter data submission processes to DHCFP. Note: The table can be expanded if additional rows are required.

Point of Contact	Description of Data Submission Responsibility		

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Section C: Payment Structures of Encounter Data

MCO Name	
Contact person for this section (Name and Title)	
Contact Information (Phone Number and E-mail)	

Please note that if your staff members use an electronic version of this questionnaire, the response boxes are expandable. Do not worry about pagination. If supplemental files or supporting documents are provided, please note the filename in your response.

 How are claims paid (e.g., percent of billed, line-by-line, case rate, etc.)? If different methods exist, please add to the table below and then list them by percentage of claim dollars for each payment type.

Payment Type	Inpatient	Outpatient	Pharmacy	Long Term Care
Percent of Billed				
Line-by-line				
Per-diem				
Variable Per Diem				
Capitation				
DRG				
Negotiated (Flat) Rate				
Ingredient Cost (for Pharmacy)				
Other (Please describe)				
Other (Please describe)				
Total	100%	100%	100%	100%

Describe how each of the payment arrangements listed above are reflected in the encounter data submissions. If outpatient visits are paid through sub-capitated arrangements, please describe how your MCO determines the paid amount submitted to DHCFP.

Inpatient	
Outpatient	

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HSAG HAVE SERVICES ADVISORY GROUP	EDV Questionnaire for MCC
Pharmacy Long Term Care	
submitted for bundled-payments	e MCO under bundle-payment structures? If so, what services are? For example, if delivery services are considered bundle payments, is on both delivery and all prenatal/postpartum services are collected.
	ng coordination of benefits/third party liability (TPL) data, and TPL payments. Provide separate responses for different types
la. How is other insurance data collected? Are your MCO's subcontracted vendors required to collect other insurance data?	
la. How is other insurance data collected? Are your MCO's subcontracted vendors required to	
la. How is other insurance data collected? Are your MCO's subcontracted vendors required to collect other insurance data? 1b. How are claims processed with TPL, including if other insurance is submitted after the initial claim	





Describe scenarios creating zero- pay amounts for your MCO (e.g., full payment by TPL, exceeding MCO's allowed amount).	
b. How are zero-pay claims reflected in the encounter data?	
c. Are zero-pay claims for sub- capitated providers processed and submitted to DHCFP? If so, describe how the completeness and accuracy of the claims are	
Describe the process for submittie	a pricing information on capitated encounters
	ng pricing information on capitated encounters.
	ng pricing information on capitated encounters.
	ng pricing information on capitated encounters.
	ng pricing information on capitated encounters.
	ng pricing information on capitated encounters.





Section D: Encounter Data Quality Monitoring and Reporting

MCO Name	
Contact person for this section (Name and Title)	
Contact Information (Phone Number and E-mail)	

Please note that if your staff members use an electronic version of this questionnaire, the response boxes are expandable. Do not worry about pagination. If supplemental files or supporting documents are provided, please note the filename in your response.

 Describe how you monitor data provided by a third-party, vendor, subcontractor, or provider for completeness, accuracy, and timeliness. If regular reports are used, submit a recent report example. If there are any concerns on the completeness, accuracy, and timeliness of data received, list the concerns under the description column.

Measure	Description	Metrics				
	Data from Vendors/ Subcontractors/ Third-party					
Completeness						
Accuracy						
Timeliness						
	Data from Providers					
Completeness						
Accuracy						
Timeliness						

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-		encounter data submitted to DHCFP. Include tinent supporting policies, procedures, and samp
reports.		
		transaction response files are used to support your the responses are tracked in your data system. If the
transaction response files	s are used to support	encounter data submission activities ("YES"), descri whether the transaction responses are stored in the
MCO's data system. If the	ne transaction respon	ses are not used to support encounter data submission
are stored in the MCO's		he last column and whether the transaction response: he table can be expanded if additional rows are
ramirad		
required.		
required.	Used to Support	Explanation of Transaction Response Use and Storag
Transaction Response	Used to Support Encounter Data Submission?	Explanation of Transaction Response Use and Storag in the MCO's Data System
	Encounter Data	
	Encounter Data Submission?	
	Encounter Data Submission?	
	Encounter Data Submission? Pes No Second No	
	Encounter Data Submission? Pes No Second No Second No Second No Second No	
	Encounter Data Submission?	Explanation of Transaction Response Use and Storag in the MCO's Data System
	Encounter Data Submission?	





List the average rejection/pend rate for the different types of claims/encounters. If the rejection rate
is not available for each claim type, include the average overall rate in the last row.

Claim/Encounter	Percentage of encounters submitted to DHCFP that are rejected by DHCFP's EDI translator	Percentage of encounters submitted to DHCFP that pass EDI translator but fail the DHCFP's encounter edit
Institutional		
Professional		
Pharmacy		
<insert vendor=""></insert>		
Overall Rate		

Overall Rate			
	procedures for the iden		y DHCFP's EDI translator, including and subsequent resubmission of
	olicies and procedures fo		at fail DHCFP's encounter edits, orrection, and subsequent resubmission
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HSAG REALTH STRANCTS ADMISSION CROOP	JESTIONNAIRE FOR MCO
 Describe how data in your MCO's encounter data system/data warehouse are used HEDIS reporting, etc.) 	1 (e.g., rate-setting,
8. What internal challenges do you face in submitting encounter data to DHCFP?	
 What external challenges do you face in submitting encounter data to DHCFP? For there challenges with DHCFP's EDI translator or the DHCFP's encounter edits. 	or example, are
10. What changes in processes or additional resources and support from DHCFP wou helpful in overcoming your challenges with successfully submitting encounter dat	
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HSAG MANSON GROUP	EDV QUESTIONNAIRE FOR MCC
11. Do you have any upcoming changes to your encounter sub- answers to the questions above? If yes, what changes are en become effective?	mission process that may impact your xpected and when are they likely to
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HSAG REALTH SERVICES ADVISORY GROUP	EDV QUESTIONNAIRE FOR MC
ttestation Statement	
hereby certify that I have reviewed the information or by knowledge, the information is complete and accur	
ignature of CEO or responsible individual	Date
rint name and title	
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This section contains images of the blank questionnaire sent to the DBA for the information systems review.



2021-2022 Encounter Data Validation Questionnaire for DBA

Overview

Accurate and complete encounter data are critical to the success of a managed care program. Therefore, the Division of Health Care Financing and Policy (DHCFP), a Division of the State of Nevada, Department of Health and Human Services (DHHS), requires its contracted managed care organizations (MCOs) and its dental benefit administrator (DBA)/prepaid ambulatory health plan (PAHP) to submit high-quality encounter data. DHCFP relies on the quality of these encounter data submissions to accurately and effectively monitor and improve the program's quality of care, generate accurate and reliable reports, develop appropriate capitated rates, and obtain complete and accurate utilization information.

In fiscal year (FY) 2021-2022, DHCFP contracted Health Services Advisory Group, Inc. (HSAG) to conduct an encounter data validation (EDV) study. In alignment with the CMS EQR Protocol 5 Validation of Encounter Data¹, HSAG will conduct the EDV study based on three evaluation activities designed to evaluate the completeness and accuracy of DHCFP's encounter data. Together, the different activities for the specific MCOs and/or DBA will provide a comprehensive assessment of DHCFP's encounter data submitted by each MCO and DBA. The three activities are as follows:

- Information systems (IS) review—assessment of DHCFP's and/or MCOs'/DBA's information systems and processes
- Comparative analysis—analysis of DHCFP's electronic encounter data completeness and accuracy
 through a comparison between DHCFP's electronic encounter data and the data extracted from the
 MCOs'/DBA's data systems
- Medical/dental record review—analysis of DHCFP's electronic encounter data completeness and
 accuracy through a comparison between DHCFP's electronic encounter data and the medical/dental
 records. Of note, conducting a medical/dental record review will be contingent upon whether the IS
 review and comparative analysis indicate that the completeness and accuracy of DHCFP's encounter
 data are sufficient.

Since FY 2021-2022 is the first year HSAG will be conducting the EDV study for LIBERTY Dental Plan of Nevada, Inc. (LIBERTY), HSAG will include the IS review component of the EDV activity for LIBERTY. The IS review will evaluate and determine whether the MCO's/DBA's systems can collect and report high quality encounter data. Concurrent with the IS review, HSAG will conduct the comparative analysis for LIBERTY to ascertain whether data are complete and are of high quality in order to proceed with the dental record review component of the EDV activity.

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Department of Health and Human Services, Centers for Medicare & Medicaid Services. Protocol 5 Validation of Encounter Data Reported by the Medicaid and CHIP Medicaid Managed Care Plan. October 2019. Available at: https://www.medicaid.gov/medicaid/quality-of-care/medicaid-managed-care/quality-of-care-external-quality-review/index.html





The IS review will include an evaluation of the DBA's processes for collecting, maintaining, and submitting encounter data to DHCFP and on the strengths and limitations of the DBA's information systems in promoting and maintaining quality encounter data. In alignment with Activity 2: Review the MCP's Capability in the CMS EQR Protocol 5, HSAG has developed the following EDV focused questionnaire to gather information regarding the DBA's information systems and data processing procedures. The IS review will enable HSAG to understand how various systems interact to determine whether such interactions have an impact on the DBA's ability to submit complete and accurate data.

General Instructions

HSAG developed the following questionnaire customized in collaboration with DHCFP to gather both general information and specific procedures for data processing, personnel, and data acquisition capabilities. The questionnaire is divided into the following four domains:

Section A: Encounter Data Sources and Systems

Section B: Data Exchange Policies and Procedures

Section C: Payment Structures of Encounter Data

Section D: Encounter Data Quality Monitoring and Reporting

LIBERTY must complete all sections of the following questionnaire, providing comprehensive answers to the questions and attaching supporting documentation (e.g., policies and procedures, data layouts, data flow diagrams, sample reports, sample data, etc.), where applicable. If different staff members within your DBA are responsible for different aspects of the processes, please distribute multiple copies of the questionnaire and ensure that each group provides answers to the applicable questions in each section. Responses do not need to be merged into a single final version; uploading multiple sections and documents is acceptable.

Upon evaluating answers to the questionnaire and additional documentation, HSAG's EDV team may conduct additional follow-up with LIBERTY via email or conference calls.

Submission of Questionnaire and Documentation

- LIBERTY should upload the completed questionnaire and supporting documentation electronically
 to HSAG's Secure Access File Exchange (SAFE) site, https://safe.hsag.com/ in your specific DBA
 folder and project subfolder labeled "NV LIBERTY Dental Encounter Data Validation."
- Please contact Brittani Alley via phone at 602-801-6569 or via e-mail at <u>BAlley@hsag.com</u> for assistance with access to HSAG's SAFE site.
- HSAG requests that LIBERTY upload the completed questionnaires, and any attachments, to HSAG's SAFE site no later than <u>December 1, 2021</u>. Upon completion of upload, please notify Lacey Hinton via e-mail at <u>LHinton@hsag.com</u>.

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 Please provide the descriptions for the acronyms used in your responses in the table below or spell them out when using the acronyms for the first time.

Acronym	Description

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2020-2021 Encounter Data Validation—DBA Focused Questionnaire

Section A: Encounter Data Sources and Systems

DBA Name	
Contact person for this section (Name and Title)	
Contact Information (Phone Number and E-mail)	

Please note that if your staff members use an electronic version of this questionnaire, the response boxes are expandable. Do not worry about pagination. If your DBA uses the same data system for multiple clients or lines of business, please limit your responses to specific procedures related to the processing of DHCFP's claims and encounters. If supplemental files or supporting documents are provided, please note the filename(s) in your response.

Using a list or data flow diagram, outline the path your DBA's encounter data follow from the time a
member receives a service(s) until the encounter is processed by DHCFP. If the data path differs by
or within a claim type, provide a separate list or data flow diagram for each claim type and scenario.
Be sure to identify any subcontractors responsible for processing the data and the associated
processes with the subcontractors. Note: The first section of the table is provided as an example. The
table can be expanded if additional rows are required.

Data Source ¹	Description of Data Flow	Supporting Document(s)
Paper Claims	All paper claims are received via mail. Paper claims are date stamped upon receipt and scanned with optical character recognition (OCR) software and converted to 837 files for electronic processing. The remaining process is the same as the claims in electronic format.	<insert file="" name=""></insert>
Dental in 837 Dental (837D) Format		
<insert other<br="">subcontractors></insert>		
¹ These sources represent claims/encounter submissions from the rendering provider to your DBA or subcontractor.		

² Examples include laboratory

For each key source of data (i.e., all data your DBA receives that are included in the encounter data submissions to DHCFP), provide a description of the files received, the frequency of receipt, and the approximate percentage of claims submitted by capitated versus fee-for-service (FFS) providers.

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Note: The first section of the table is provided as an example. The table can be expanded if additional rows are required.

Data Source¹	Description of Data Received (Including Format)	Frequency ²	Approximate Percentage of Claims from Capitated Providers
Dental	We receive paid and denied claims in a flat file format.	Daily	65%
Dental in 837D Format			
<insert other<br="">subcontractors³></insert>			

¹ These sources represent claims/encounter submissions from the rendering provider to your DBA or subcontractor.

 For each key source of data, provide a description of the software used to receive data, validate data, and prepare outbound encounters for submission to DHCFP. Note: The first section of the table is provided as an example. The table can be expanded if additional rows are required.

Data Source¹	Software Used to Receive Data	Software Used to Validate Data	Software Used to Generate Encounters for DHCFP
Paper claims	Convert to 837 format through an optical character recognition (OCR) software by <insert name></insert 	Facets	Encounter Data Manager
Dental in 837D Format			
<insert other<br="">subcontractors¹></insert>			

¹ These sources represent claims/encounter submissions from the rendering provider to your DBA or subcontractor.

 For encounters submitted to DHCFP through the 837D format, please describe the software used for the Electronic Data Interchange (EDI) compliance checks and the Workgroup for Electronic Data

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² Frequency = Daily, weekly, twice a month, monthly, every other month, etc.

³ Examples include hearing, chiropractic, laboratory, etc.

² Examples include hearing, chiropractic, laboratory, etc.





Interchange Strategic National Implementation Process (WEDI SNIP) levels that are used in the EDI compliance checks.

Data Source ¹	Software for EDI Compliance Checks	WEDI SNIP Level
Dental claims	Edifecs	Levels 1-4
Dental in 837D Format		
<insert other="" subcontractors<sup="">2></insert>		

¹ These sources represent claims/encounter submissions from the rendering provider to your DBA or subcontractor.

5. Please specify the modifications, reformatting or changes made to the claims/encounter data to accommodate DHCFP's encounter data submission standards. Describe the modifications or reformatting using specific data field names and examples. If a vendor prepares the encounter data submission for your DBA, please specify the modifications made by the vendor and additional modifications made by the DBA separately. Note: The first row of the table is provided as an example. The table can be expanded if additional rows are required.

Data Type	Field	Modification Details	Modification Made By
Dental Claims	Provider ID	Zeros are added to the beginning of values in the Provider ID field to pad the results to a standard length of characters (e.g., 00003126).	DBA

6. Please specify how your DBA prepares/enriches data elements that are not on the claims from providers but required by DHCFP. Describe the source of the data and process to create these data elements. If a vendor prepares the encounter data submission for your DBA, please specify the modifications made by the vendor and additional modifications made by the DBA separately. Note: The first row of the table is provided as an example. The table can be expanded if additional rows are required.

Data Type	Field	Source Data and Creation Process	Modification Made By
Dental Claims	Taxonomy Code	Obtain taxonomy codes from a reference file by linking with provider NPI and procedure code.	DBA

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² Examples include hearing, chiropractic, laboratory, etc.





Data Type	Field	Source Data and Creation Process	Modification Made By

Describe the types of validation performed on claims, the percentage of validated claims, and the
types of claims validated. Note: The first row of the table is provided as an example. The table can
be expanded if additional rows are required.

Types of Claims/Data Elements Validated	Description of Validation Performed	Percentage of Claims Validated
Dental/Tooth number	Validate tooth number based on universal numbering system.	99%

8. Describe any code and/or field mapping performed during data processing and validation prior to adjudicating claims for payment processing, including those maintained by vendors/subcontractors, as appropriate. Note: The first row of the table is provided as an example. The table can be expanded if additional rows are required.

Field	Description of Mapping	Source of Reference Table	Frequency of Updating Reference Table
Rendering Provider NPI	Map to reference table	Provider enrollment file	Quarterly

9.	Describe any code and/or field mapping performed during data processing for submission to
	DHCFP, including codes and/or fields maintained by vendors/ subcontractors, as appropriate. Note
	The first row of the table is provided as an example. The table can be expanded if additional rows
	are required.

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Field	Description of Mapping	Source of Reference Table	Frequency of Updating Reference Table		
Subcontractor ID	Map to correct value assigned by DHCFP for each program and sender	N/A	Whenever change occurs		
		ns. Provide details on the fields used are identified, and how they are han			
11. Describe the types of adjusted claims).	claims/encounters that ar	re not submitted to DHCFP (e.g., paid	d, denied, voided,		
12. Describe the process to submit denied or partially denied claims/encounters to DHCFP. List measures taken to ensure that denied claims/encounters do not include paid service lines.					

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13a. What is the process to identify encounters for which adjustments are required?				
13b. Describe the process to submit adjustments.				
13c. How long does it take from identification to re- submission for encounters needing adjustments?				
13d. If adjustments are not submitted, describe why these encounters were not submitted.				
submitted, describe why these encounters were not submitted.	ddress the o		ission of provider data and enro	ollme
these encounters were not submitted. 4. The following questions a data.		eollection, use, and subm	ission of provider data and enro	ollme
submitted, describe why these encounters were not submitted. 4. The following questions a	ned by? ype of	Provider Data		ollme



14d. Describe flow of data from collection to maintenance including processes associated with the subcontractor		
collection to maintenance including processes associated with the subcontractor		
14e. Describe the process for linking data to claims/encounters including any procedures for reconciling differences between data submitted on the claim/encounter and your provider data		
	Enrollment data	
14f. Data collected and maintained by?	By the DBA	By a subcontractor
14g. List name of vendor and type of data maintained (e.g., Vendor X for all dental services)		
14h. List vendor's responsibilities in collecting and maintaining the data		
14i. Describe flow of data from collection to maintenance including processes associated with the subcontractor		
14j. Describe the process for linking data to claims/encounters including any procedures for reconciling differences between data submitted on the claim/encounter and your enrollment data		





Section B: Data Exchange Policies and Procedures

DBA Name	
Contact person for this section (Name and Title)	
Contact Information (Phone Number and E-mail)	

Please note that if your staff members use an electronic version of this questionnaire, the response boxes are expandable. Do not worry about pagination. If supplemental files or supporting documents are provided, please note the filename in your response.

Describe the encounter data submission process used by your DBA. Include details outlining the
organizational and operational policies and procedures related to your encounter data submissions
and how your DBA enforces the policies and procedures.

What is the frequency of encounter submission to DHCFP?	
List whether encounters are submitted directly or through a vendor/subcontractor.	
1c. Describe the encounter submission process.	
Describe the policies and procedures related to the encounter submission process.	
1e. Measures taken to enforce policies and procedures.	

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 List the point(s) of contact at your DBA and their role in the encounter data submission processes to DHCFP. Note: The table can be expanded if additional rows are required.

Point of Contact	Description of Data Submission Responsibility

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Section C: Payment Structures of Encounter Data

DBA Name	
Contact person for this section (Name and Title)	
Contact Information (Phone Number and E-mail)	

Please note that if your staff members use an electronic version of this questionnaire, the response boxes are expandable. Do not worry about pagination. If supplemental files or supporting documents are provided, please note the filename in your response.

 How are claims paid (e.g., percent of billed, line-by-line, case rate, etc.)? If different methods exist, please add to the table below and then list them by percentage of claim dollars for each payment type.

Payment Type	Percentage of Claim Dollars
Percent of Billed	
Line-by-line	
Per-diem	
Variable Per Diem	
Capitation	
Other (Please describe)	
Other (Please describe)	
Total	100%

	Outer (Frease describe)					
	Total	100%				
submiss	 Describe how each of the payment arrangements listed above are reflected in the encounter data submissions. If dental visits are paid through sub-capitated arrangements, please describe how your DBA determines the paid amount submitted to DHCFP. 					
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HSAG AMISON GROUP	
 Are any services submitted to the submitted for <u>bundled-payments</u>? 	DBA under bundle-payment structures? If so, what services are
	g coordination of benefits/third party liability (TPL) data, and TPL payments. Provide separate responses for different types counters.
4a. How is other insurance data collected? Are your DBA's subcontracted vendors required to collect other insurance data?	
4b. How are claims processed with TPL, including if other insurance is submitted after initial claim processing?	
4c. What source data is used to verify the accuracy of the third-party claims information? Where does your DBA store payment information and the source data? How is third party information populated onto encounters submitted to DHCFP.	
4d. What are the measures taken to ensure accuracy of the TPL payment amount?	
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a. Describe scenarios creating zero- pay amounts for your DBA (e.g., full payment by TPL, exceeding DBA's allowed amount).	
b. How are zero-pay claims reflected in the encounter data?	
c. Are zero-pay claims for sub- capitated providers processed and submitted to DHCFP? If so, describe how the completeness and accuracy of the claims are assessed.	
Describe the process for submitting	ng pricing information on capitated encounters.
Describe the process for submitting	ng pricing information on capitated encounters.
Describe the process for submitting	ng pricing information on capitated encounters.
Describe the process for submitting	ng pricing information on capitated encounters.
Describe the process for submitting	ng pricing information on capitated encounters.
Describe the process for submitting	ng pricing information on capitated encounters.





Section D: Encounter Data Quality Monitoring and Reporting

DBA Name	
Contact person for this section (Name and Title)	
Contact Information (Phone Number and E-mail)	

Please note that if your staff members use an electronic version of this questionnaire, the response boxes are expandable. Do not worry about pagination. If supplemental files or supporting documents are provided, please note the filename in your response.

 Describe how you monitor data provided by a third-party, vendor, subcontractor, or provider for completeness, accuracy, and timeliness. If regular reports are used, submit a recent report example. If there are any concerns on the completeness, accuracy, and timeliness of data received, list the concerns under the description column.

Measure	Description	Metrics	
Data from Vendors/ Subcontractors/ Third-party			
Completeness			
Accuracy			
Timeliness			
	Data from Providers		
Completeness			
Accuracy			
Timeliness			

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HSAG	HEALTH SERVICES ADVISORY GROUP

HSAG HAUTI STANCES		EDV Questionnaire for DBA
		encounter data submitted to DHCFP. Include tinent supporting policies, procedures, and sample
encounter data submission transaction response file how the data are used in DBA's data system. If the activities ("NO"), explain	on activities and how s are used to support the last column and v the transaction respons to the reason why in the	ransaction response files are used to support your the responses are tracked in your data system. If the encounter data submission activities ("YES"), describe whether the transaction responses are stored in the ses are not used to support encounter data submission the last column and whether the transaction responses the table can be expanded if additional rows are
Transaction Response	Used to Support Encounter Data Submission?	Explanation of Transaction Response Use and Storage in the DBA's Data System
	□ Yes □ No	
	□ Yes □ No	
	□ Yes □ No	
	□ Yes □ No	
	<u>□ Yes</u> □ No	





 List the average rejection/pend rate for the dental claims/encounters. If the rejection rate is not available for each claim type, include the average overall rate in the last row.

Claim/Encounter	Percentage of encounters submitted to DHCFP that are rejected by DHCFP'S EDI translator	Percentage of encounters submitted to DHCFP that pass EDI translator but fail the DHCFP's encounter edit
Dental		
<insert vendor=""></insert>		
Overall Rate		

Overall Rate				
	nd proce	dures for the ident		y DHCFP's EDI translator, including and subsequent resubmission of
	policies	and procedures fo		at fail DHCFP's encounter edits, correction, and subsequent resubmission
Describe how HEDIS report			inter data system/data	a warehouse are used (e.g., rate-setting,
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HSAG MALTY SERVICES ADVISORY GROUP	EDV QUESTIONNAIRE FOR DBA
8. What internal challenges do you face in submitting encounter data to Di	HCFP?
What external challenges do you face in submitting encounter data to D there challenges with DHCFP'S EDI translator or the DHCFP's encoun	
10. What changes in processes or additional resources and support from DF helpful in overcoming your challenges with successfully submitting end	
11. Do you have any upcoming changes to your encounter submission proc answers to the questions above? If yes, what changes are expected and a become effective?	
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HSAG MAIN SERVICES ANSON GROUP	EDV QUESTIONINAIRE FOR DBA
Attestation Statement	
I hereby certify that I have reviewed the information my knowledge, the information is complete and accu-	entered on this questionnaire and that, to the best of rate as of the date below.
Signature of CEO or responsible individual	Date
Print name and title	
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Appendix B. Statewide Comparative Analysis and Medical/Dental Record Review Results

This appendix contains detailed comparative analysis and medical/dental record review results for the combined MCEs.

Comparative Analysis

Table B-1—Record Omission and Surplus by Encounter Type

	Record Omission			Record Surplus		
Encounter Data Source	Denominator	Numerator	Rate*	Denominator	Numerator	Rate*
Professional	11,957,530	695,319	5.8%	11,410,544	148,333	1.3%
Institutional	4,906,999	570,842	11.6%	4,529,029	192,872	4.3%
Pharmacy	6,287,513	10,632	0.2%	7,239,576	962,695	13.3%
Dental	1,736,335	31,012	1.8%	1,721,993	16,670	1.0%

^{*} Lower rates indicate better performance.

Table B-2—Element Omission and Surplus—Professional Encounters

		Element Omission		Element Surplus	
Key Data Element	Number of Matched Records	Number of Records With Values Not in DHCFP's File	Rate*	Number of Records With Values Not in MCEs' Files	Rate*
Recipient ID	11,262,211	0	0.0%	91	<0.1%
Header Service From Date	11,262,211	0	0.0%	0	0.0%
Header Service To Date	11,262,211	0	0.0%	0	0.0%
Detail Service From Date	11,262,211	0	0.0%	0	0.0%
Detail Service To Date	11,262,211	0	0.0%	0	0.0%
Billing Provider NPI	11,262,211	386,952	3.4%	116	<0.1%
Rendering Provider NPI	11,262,211	127,006	1.1%	3,300,419	29.3%
Referring Provider NPI	11,262,211	120,727	1.1%	2,153,825	19.1%
Primary Diagnosis Code	11,262,211	0	0.0%	5	<0.1%
Secondary Diagnosis Code	11,262,211	4	<0.1%	1,133,159	10.1%



		Element Omission		Element Surplus	
Key Data Element	Number of Matched Records	Number of Records With Values Not in DHCFP's File	Rate*	Number of Records With Values Not in MCEs' Files	Rate*
Procedure Code (CPT/HCPCS/CDT)	11,262,211	972	<0.1%	5	<0.1%
Procedure Code Modifier	11,262,211	1,368	<0.1%	1,239	<0.1%
NDC	11,262,211	3,773	<0.1%	420	<0.1%
Drug Quantity	11,262,211	3,740	<0.1%	0	0.0%
Header Paid Amount	11,262,211	0	0.0%	0	0.0%
Detail Paid Amount	11,262,211	0	0.0%	0	0.0%

^{*} Lower rates indicate better performance.

Table B-3—Element Omission and Surplus—Institutional Encounters

		Element Omission		Element Surplus	
Key Data Element	Number of Matched Records	Number of Records With Values Not in DHCFP's File	Rate*	Number of Records With Values Not in MCEs' Files	Rate*
Recipient ID	4,336,157	0	0.0%	55	<0.1%
Header Service From Date	4,336,157	0	0.0%	0	0.0%
Header Service To Date	4,336,157	0	0.0%	0	0.0%
Detail Service From Date	4,336,157	0	0.0%	0	0.0%
Detail Service To Date	4,336,157	0	0.0%	0	0.0%
Billing Provider NPI	4,336,157	15,219	0.4%	0	0.0%
Attending Provider NPI	4,336,157	78,804	1.8%	0	0.0%
Referring Provider NPI	4,336,157	19,703	0.5%	21,803	0.5%
Primary Diagnosis Code	4,336,157	0	0.0%	0	0.0%
Secondary Diagnosis Code	4,336,157	95,156	2.2%	227,434	5.2%
Procedure Code (CPT/HCPCS/CDT)	4,336,157	8,822	0.2%	9,958	0.2%
Procedure Code Modifier	4,336,157	20,491	0.5%	21,958	0.5%
Primary Surgical Procedure Code	4,336,157	633	<0.1%	237,007	5.5%
Secondary Surgical Procedure Code	4,336,157	315	<0.1%	151,660	3.5%



		Element Omission		Element Surplus	
Key Data Element	Number of Matched Records	Number of Records With Values Not in DHCFP's File	Rate*	Number of Records With Values Not in MCEs' Files	Rate*
NDC	4,336,157	42,197	1.0%	42,675	1.0%
Drug Quantity	4,336,157	42,195	1.0%	0	0.0%
Revenue Code	4,336,157	15	<0.1%	8	<0.1%
Header Paid Amount	4,336,157	0	0.0%	0	0.0%
Detail Paid Amount	4,336,157	0	0.0%	0	0.0%

^{*} Lower rates indicate better performance.

Table B-4—Element Omission and Surplus—Pharmacy Encounters

		Element Omission		Element Surplus	
Key Data Element	Number of Matched Records	Number of Records With Values Not in DHCFP's File	Rate*	Number of Records With Values Not in MCOs' Files	Rate*
Recipient ID	6,276,881	0	0.0%	0	0.0%
Date of Service	6,276,881	0	0.0%	0	0.0%
Billing Provider NPI	6,276,881	34,724	0.6%	0	0.0%
Prescribing Provider NPI	6,276,881	0	0.0%	56	<0.1%
NDC	6,276,881	0	0.0%	0	0.0%
Drug Quantity	6,276,881	0	0.0%	0	0.0%
Paid Amount	6,276,881	0	0.0%	0	0.0%

^{*} Lower rates indicate better performance.

Table B-5—Element Omission and Surplus—Dental Encounters

		Element Omission		Element Surplus	
Key Data Element	Number of Matched Records	Number of Records With Values Not in DHCFP's File	Rate*	Number of Records With Values Not in MCEs' Files	Rate*
Recipient ID	1,705,323	0	0.0%	0	0.0%
Header Service From Date	1,705,323	0	0.0%	0	0.0%
Header Service To Date	1,705,323	0	0.0%	0	0.0%



		Element Omission		Element Surplus	
Key Data Element	Number of Matched Records	Number of Records With Values Not in DHCFP's File	Rate*	Number of Records With Values Not in MCEs' Files	Rate*
Detail Service From Date	1,705,323	0	0.0%	0	0.0%
Detail Service To Date	1,705,323	7,683	0.5%	0	0.0%
Billing Provider NPI	1,705,323	87,882	5.2%	0	0.0%
Rendering Provider NPI	1,705,323	4,371	0.3%	0	0.0%
Procedure Code (CPT/HCPCS/CDT)	1,705,323	21	<0.1%	0	0.0%
Tooth Number	1,705,323	224	<0.1%	5	<0.1%
Oral Cavity Code	1,705,323	25	<0.1%	1	<0.1%
Tooth Surface 1	1,705,323	61	<0.1%	3	<0.1%
Tooth Surface 2	1,705,323	12	<0.1%	0	0.0%
Tooth Surface 3	1,705,323	4	<0.1%	0	0.0%
Tooth Surface 4	1,705,323	19	<0.1%	1	<0.1%
Tooth Surface 5	1,705,323	1	<0.1%	0	0.0%
Header Paid Amount	1,705,323	0	0.0%	0	0.0%
Detail Paid Amount	1,705,323	0	0.0%	0	0.0%

^{*} Lower rates indicate better performance.

Table B-6—Element Accuracy—Professional Encounters

Key Data Element	Number of Records With Values Present in Both Files	Number of Records With Same Values in Both Files	Rate
Recipient ID	11,262,120	11,260,440	>99.9%
Header Service From Date	11,262,211	11,262,197	>99.9%
Header Service To Date	11,262,211	11,262,209	>99.9%
Detail Service From Date	11,262,211	11,260,323	>99.9%
Detail Service To Date	11,262,211	11,260,320	>99.9%
Billing Provider NPI	10,874,489	10,717,032	98.6%
Rendering Provider NPI	7,625,919	7,625,268	>99.9%
Referring Provider NPI	3,510,614	3,510,614	100.0%
Primary Diagnosis Code	11,262,206	11,118,618	98.7%



Key Data Element	Number of Records With Values Present in Both Files	Number of Records With Same Values in Both Files	Rate
Secondary Diagnosis Code	5,835,711	3,888,745	66.6%
Procedure Code (CPT/HCPCS/CDT)	11,261,233	11,242,870	99.8%
Procedure Code Modifier	3,367,100	3,366,430	>99.9%
NDC	467,909	467,706	>99.9%
Drug Quantity	468,329	336,541	71.9%
Header Paid Amount	11,262,211	11,128,957	98.8%
Detail Paid Amount	11,262,211	11,191,928	99.4%

Table B-7—Element Accuracy—Institutional Encounters

Key Data Element	Number of Records With Values Present in Both Files	Number of Records With Same Values in Both Files	Rate
Recipient ID	4,336,102	4,335,549	>99.9%
Header Service From Date	4,336,157	4,330,680	99.9%
Header Service To Date	4,336,157	4,309,410	99.4%
Detail Service From Date	4,336,157	4,006,294	92.4%
Detail Service To Date	4,336,157	3,653,615	84.3%
Billing Provider NPI	4,320,938	4,320,590	>99.9%
Attending Provider NPI	4,249,245	4,249,245	100.0%
Referring Provider NPI	1,773	78	4.4%
Primary Diagnosis Code	4,336,157	4,336,139	>99.9%
Secondary Diagnosis Code	3,690,037	2,132,031	57.8%
Procedure Code (CPT/HCPCS/CDT)	3,021,865	2,818,705	93.3%
Procedure Code Modifier	567,874	564,636	99.4%
Primary Surgical Procedure Code	327,146	180,664	55.2%
Secondary Surgical Procedure Code	208,584	77,249	37.0%
NDC	757,713	749,168	98.9%



Key Data Element	Number of Records With Values Present in Both Files	Number of Records With Same Values in Both Files	Rate
Drug Quantity	800,388	583,312	72.9%
Revenue Code	4,336,102	4,150,706	95.7%
Header Paid Amount	4,336,157	4,291,073	99.0%
Detail Paid Amount	4,336,157	4,152,410	95.8%

Table B-8—Element Accuracy—Pharmacy Encounters

Key Data Element	Number of Records With Values Present in Both Files		Rate
Recipient ID	6,276,881	6,276,615	>99.9%
Date of Service	6,276,881	6,276,881	100.0%
Billing Provider NPI	6,242,157	6,242,152	>99.9%
Prescribing Provider NPI	6,276,821	6,276,819	>99.9%
NDC	6,276,881	6,274,211	>99.9%
Drug Quantity	6,276,881	6,269,240	99.9%
Paid Amount	6,276,881	6,095,959	97.1%

Table B-9—Element Accuracy—Dental Encounters

Key Data Element	Number of Records With Values Present in Both Files	Number of Records With Same Values in Both Files	Rate
Recipient ID	1,705,323	1,705,152	>99.9%
Header Service From Date	1,705,323 1,705,321		>99.9%
Header Service To Date	1,705,323	1,705,305	>99.9%
Detail Service From Date	1,705,323	1,705,319	>99.9%
Detail Service To Date	1,697,640	1,697,637	>99.9%
Billing Provider NPI	1,617,441	1,578,316	97.6%
Rendering Provider NPI	1,700,952	1,700,624	>99.9%
Procedure Code (CPT/HCPCS/CDT)	1,705,302	1,705,043	>99.9%
Tooth Number	640,047	640,002	>99.9%
Oral Cavity Code	23,140	22,844	98.7%



Key Data Element	Number of Records With Values Present in Both Files	Number of Records With Same Values in Both Files	Rate
Tooth Surface 1	139,418	139,418	100.0%
Tooth Surface 2	80,152	80,151	>99.9%
Tooth Surface 3	18,593	18,593	100.0%
Tooth Surface 4	3,409	3,409	100.0%
Tooth Surface 5	736	736	100.0%
Header Paid Amount	1,705,323	1,695,976	99.5%
Detail Paid Amount	1,705,323	1,699,379	99.7%

Table B-10—All-Element Accuracy by Encounter Type

Encounter Type	Number of Records in Both Files	Number of Records With Same Values in Both Files	Rato		
Professional	11,262,211	4,608,015	40.9%		
Institutional	4,336,157	1,980,131	45.7%		
Pharmacy	6,276,881	6,060,491	96.6%		
Dental	1,705,323	1,559,459	91.4%		

Medical Record Review Results

Table B-11—MRR: Encounter Data Completeness

	Medical Reco	ord Omission	Encounter Data Omission		
Data Element	Denominator	Percent*	Denominator	Percent*	
Date of Service	1,612	10.3%	1,400	4.3%	
Diagnosis Code	4,352	13.5%	3,591	2.7%	
Procedure Code	3,156	19.9%	2,903	20.6%	
Procedure Code Modifier	1,372	32.7%	893	3.2%	

^{*} Lower rates indicate better performance.



Table B-12—MRR: Encounter Data Accuracy

Data Element	Denominator	Percent	Main Error Type
Diagnosis Code	3,502	99.7%	Incorrect Code (100.0%) Specificity Error (0.0%)
Procedure Code	2,344	97.1%	Incorrect Code (91.6%) Lower Level of Services in Medical Records (8.4%) Higher Level of Services in Medical Records (0.0%)
Procedure Code Modifier	866	99.9%	_
All-Element Accuracy	1,345	58.6%	_

[&]quot;—" denotes that the error type analysis was not applicable to a given data element.



Appendix C. Comparative Analysis and Medical Record Review Results for Anthem Blue Cross and Blue Shield Healthcare Solutions

This appendix contains detailed comparative analysis and medical record review results for **Anthem Blue Cross and Blue Shield Healthcare Solutions**.

Comparative Analysis Results

Table C-1—Record Omission and Surplus by Encounter Type

	Re	ecord Omission	1	Record Surplus		
Encounter Data Source	Denominator Numerator Rate*		Rate*	Denominator	Numerator	Rate*
Professional	5,209,867	541,636	10.4%	4,707,016	38,785	0.8%
Institutional	2,258,989	476,054	21.1%	1,845,955	63,020	3.4%
Pharmacy	3,046,136	5,019	0.2%	3,521,783	480,666	13.6%

^{*} Lower rates indicate better performance.

Table C-2—Element Omission and Surplus—Professional Encounters

		Element Omission		Element Surplus	
Key Data Element	Number of Matched Records	Number of Records With Values Not in DHCFP's File	Rate*	Number of Records With Values Not in MCEs' Files	Rate*
Recipient ID	4,668,231	0	0.0%	0	0.0%
Header Service From Date	4,668,231	0	0.0%	0	0.0%
Header Service To Date	4,668,231	0	0.0%	0	0.0%
Detail Service From Date	4,668,231	0	0.0%	0	0.0%
Detail Service To Date	4,668,231	0	0.0%	0	0.0%
Billing Provider NPI	4,668,231	199,981	4.3%	115	<0.1%
Rendering Provider NPI	4,668,231	98,570	2.1%	1,476,542	31.6%
Referring Provider NPI	4,668,231	0	0.0%	2,153,825	46.1%
Primary Diagnosis Code	4,668,231	0	0.0%	2	<0.1%
Secondary Diagnosis Code	4,668,231	4	<0.1%	960,669	20.6%
Procedure Code (CPT/HCPCS/CDT)	4,668,231	497	<0.1%	0	0.0%



		Element C	Omission	Element Surplus	
Key Data Element	Number of Matched Records	Number of Records With Values Not in DHCFP's File	Rate*	Number of Records With Values Not in MCEs' Files	Rate*
Procedure Code Modifier	4,668,231	15	<0.1%	12	<0.1%
NDC	4,668,231	11	<0.1%	6	<0.1%
Drug Quantity	4,668,231	11	<0.1%	0	0.0%
Header Paid Amount	4,668,231	0	0.0%	0	0.0%
Detail Paid Amount	4,668,231	0	0.0%	0	0.0%

^{*} Lower rates indicate better performance.

Table C-3—Element Omission and Surplus—Institutional Encounters

		Element Omission		Element S	Surplus
Key Data Element	Number of Matched Records	Number of Records With Values Not in DHCFP's File	Rate*	Number of Records With Values Not in MCEs' Files	Rate*
Recipient ID	1,782,935	0	0.0%	0	0.0%
Header Service From Date	1,782,935	0	0.0%	0	0.0%
Header Service To Date	1,782,935	0	0.0%	0	0.0%
Detail Service From Date	1,782,935	0	0.0%	0	0.0%
Detail Service To Date	1,782,935	0	0.0%	0	0.0%
Billing Provider NPI	1,782,935	8,313	0.5%	0	0.0%
Attending Provider NPI	1,782,935	36,137	2.0%	0	0.0%
Referring Provider NPI	1,782,935	0	0.0%	0	0.0%
Primary Diagnosis Code	1,782,935	0	0.0%	0	0.0%
Secondary Diagnosis Code	1,782,935	0	0.0%	227,420	12.8%
Procedure Code (CPT/HCPCS/CDT)	1,782,935	152	<0.1%	8	<0.1%
Procedure Code Modifier	1,782,935	11	<0.1%	9	<0.1%
Primary Surgical Procedure Code	1,782,935	0	0.0%	236,988	13.3%
Secondary Surgical Procedure Code	1,782,935	0	0.0%	150,206	8.4%
NDC	1,782,935	11	<0.1%	3	<0.1%
Drug Quantity	1,782,935	11	<0.1%	0	0.0%



		Element Omission		Element Surplus	
Key Data Element	Number of Matched Records	Number of Records With Values Not in DHCFP's File	Rate*	Number of Records With Values Not in MCEs' Files	Rate*
Revenue Code	1,782,935	5	<0.1%	0	0.0%
Header Paid Amount	1,782,935	0	0.0%	0	0.0%
Detail Paid Amount	1,782,935	0	0.0%	0	0.0%

^{*} Lower rates indicate better performance.

Table C-4—Element Omission and Surplus—Pharmacy Encounters

	Element	Omission	Element Surplus		
Key Data Element	Number of Matched Records	Number of Records With Values Not in DHCFP's File	Rate*	Number of Records With Values Not in MCOs' Files	Rate*
Recipient ID	3,041,117	0	0.0%	0	0.0%
Date of Service	3,041,117	0	0.0%	0	0.0%
Billing Provider NPI	3,041,117	3,408	0.1%	0	0.0%
Prescribing Provider NPI	3,041,117	0	0.0%	37	<0.1%
NDC	3,041,117	0	0.0%	0	0.0%
Drug Quantity	3,041,117	0	0.0%	0	0.0%
Paid Amount	3,041,117	0	0.0%	0	0.0%

^{*} Lower rates indicate better performance.

Table C-5—Element Accuracy—Professional Encounters

Key Data Element	Number of Records With Values Present in Both Files	alues Present in Both Same Values in Both Files	
Recipient ID	4,668,231	4,667,850	>99.9%
Header Service From Date	4,668,231	4,668,230	>99.9%
Header Service To Date	4,668,231	4,668,230	>99.9%
Detail Service From Date	4,668,231	4,668,229	>99.9%
Detail Service To Date	4,668,231	4,668,229	>99.9%
Billing Provider NPI	4,467,481	4,462,924	99.9%



Key Data Element	Number of Records With Values Present in Both Files	Number of Records With Same Values in Both Files	Rate
Rendering Provider NPI	2,937,412	2,937,412	100.0%
Referring Provider NPI	0	0	NA
Primary Diagnosis Code	4,668,229	4,668,186	>99.9%
Secondary Diagnosis Code	1,803,579	0	0.0%
Procedure Code (CPT/HCPCS/CDT)	4,667,734	4,667,633	>99.9%
Procedure Code Modifier	1,303,069	1,303,066	>99.9%
NDC	198,984	198,975	>99.9%
Drug Quantity	198,990	93,487	47.0%
Header Paid Amount	4,668,231	4,667,534	>99.9%
Detail Paid Amount	4,668,231	4,667,681	>99.9%

Table C-6—Element Accuracy—Institutional Encounters

Key Data Element	Number of Records With Values Present in Both Files	Number of Records With Same Values in Both Files	Rate
Recipient ID	1,782,935	1,782,821	>99.9%
Header Service From Date	1,782,935	1,782,934	>99.9%
Header Service To Date	1,782,935	1,782,935	100.0%
Detail Service From Date	1,782,935	1,505,147	84.4%
Detail Service To Date	1,782,935	1,152,735	64.7%
Billing Provider NPI	1,774,622	1,774,487	>99.9%
Attending Provider NPI	1,743,866	1,743,866	100.0%
Referring Provider NPI	0	0	NA
Primary Diagnosis Code	1,782,935	1,782,935	100.0%
Secondary Diagnosis Code	1,376,214	0	0.0%
Procedure Code (CPT/HCPCS/CDT)	1,237,785	1,237,744	>99.9%
Procedure Code Modifier	266,959	266,954	>99.9%
Primary Surgical Procedure Code	0	0	NA



Key Data Element	Number of Records With Values Present in Both Files	Number of Records With Same Values in Both Files	Rate	
Secondary Surgical Procedure Code	0	0	NA	
NDC	307,269	307,251	>99.9%	
Drug Quantity	307,272	148,027	48.2%	
Revenue Code	1,782,930	1,782,861	>99.9%	
Header Paid Amount	1,782,935	1,782,352	>99.9%	
Detail Paid Amount	1,782,935	1,782,615	>99.9%	

Table C-7—Element Accuracy—Pharmacy Encounters

Key Data Element	Number of Records With Values Present in Both Files	Number of Records With Same Values in Both Files	Rate
Recipient ID	3,041,117	3,041,010	>99.9%
Date of Service	3,041,117	3,041,117	100.0%
Billing Provider NPI	3,037,709	3,037,709	100.0%
Prescribing Provider NPI	3,041,077	3,041,076	>99.9%
NDC	3,041,117	3,039,925	>99.9%
Drug Quantity	3,041,117	3,039,547	99.9%
Paid Amount	3,041,117	2,878,045	94.6%

Table C-8—All-Element Accuracy by Encounter Type

Encounter Type	Number of Records in Both Files	Number of Records With Same Values in Both Files	Rate
Professional	4,668,231	625,034	13.4%
Institutional	1,782,935	149,814	8.4%
Pharmacy	3,041,117	2,874,135	94.5%



Medical Record Review Results

Table C-9—MRR: Encounter Data Completeness

	Medical Reco	ord Omission	Encounter Data Omission		
Data Element	Denominator Percent*		Denominator	Percent*	
Date of Service	529	13.4%	479	4.4%	
Diagnosis Code	1,393	17.3%	1,188	3.0%	
Procedure Code	932	21.8%	963	24.3%	
Procedure Code Modifier	444	31.1%	317	3.5%	

^{*} Lower rates indicate better performance.

Table C-10—MRR: Encounter Data Accuracy

Data Element	Denominator	Percent	Main Error Type
Diagnosis Code	1,152	99.6%	Incorrect Code (100.0%)
	,		Specificity Error (0.0%)
			Incorrect Code (84.0%)
Procedure Code	729	96.6%	Lower Level of Services in Medical Records (16.0%)
			Higher Level of Services in Medical Records (0.0%)
Procedure Code Modifier	306	100.0%	_
All-Element Accuracy	458	51.3%	_

[&]quot;—" denotes that the error type analysis was not applicable to a given data element.

Strengths, Weaknesses, and Recommendations

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

Strengths

Strength #1: Pharmacy data element comparison between data extracted from **Anthem**'s claims systems and data extracted from DHCFP's data warehouse showed complete and accurate data.

Weaknesses and Recommendations

Weakness #1: Errors in data files extracted for the study were observed (e.g., *Drug Quantity* data element having the same values as the *Units of Service* data element). Consequently, the errors resulted in discrepancies in the comparative analysis.





Recommendation: HSAG recommends that **Anthem** implement standard quality controls to ensure accurate data extracts from its respective systems. Through the development of standard data extraction procedures and quality control, the number of errors associated with extracted data could be reduced.

Weakness #2: Anthem was unable to procure all of the requested medical records from its contracted providers, resulting in a low medical record procurement rate. The low medical record procurement rate consequently impacted the results of the medical record reviews of key data elements that were evaluated.

Recommendation: To ensure **Anthem**'s contracted provider accountability in addressing submission of medical records for auditing, inspection, and examination related to its members, **Anthem** should consider strengthening and/or enforcing its contract requirements with providers in providing the requested documentation.

Weakness #3: Procedure codes documented in the medical records were either not found in the encounter data or were found in the encounter data but should have been coded with a different procedure code.

Recommendation: Anthem should consider performing periodic medical record reviews of submitted claims to verify appropriate coding and data completeness. Any findings from these reviews will then be shared with providers through periodic education and training regarding encounter data submissions, medical record documentation, and coding practices.



Appendix D. Comparative Analysis and Medical Record Review Results for Health Plan of Nevada

This appendix contains detailed comparative analysis and medical record review results for **Health Plan** of Nevada.

Comparative Analysis Results

Table D-1—Record Omission and Surplus by Encounter Type

	Record Omission			ission Record Surplus		
Encounter Data Source	Denominator Numerator Rate*		Denominator	Numerator	Rate*	
Professional	5,375,114	129,737	2.4%	5,328,228	82,851	1.6%
Institutional	2,052,310	44,840	2.2%	2,126,567	119,097	5.6%
Pharmacy	2,447,331	0	0.0%	2,790,410	343,079	12.3%

^{*} Lower rates indicate better performance.

Table D-2—Element Omission and Surplus—Professional Encounters

		Element C	Omission	Element Surplus	
Key Data Element	Number of Matched Records	Number of Records With Values Not in DHCFP's File	Rate*	Number of Records With Values Not in MCEs' Files	Rate*
Recipient ID	5,245,377	0	0.0%	91	<0.1%
Header Service From Date	5,245,377	0	0.0%	0	0.0%
Header Service To Date	5,245,377	0	0.0%	0	0.0%
Detail Service From Date	5,245,377	0	0.0%	0	0.0%
Detail Service To Date	5,245,377	0	0.0%	0	0.0%
Billing Provider NPI	5,245,377	166,647	3.2%	1	<0.1%
Rendering Provider NPI	5,245,377	19,618	0.4%	1,460,728	27.8%
Referring Provider NPI	5,245,377	72,302	1.4%	0	0.0%
Primary Diagnosis Code	5,245,377	0	0.0%	3	<0.1%
Secondary Diagnosis Code	5,245,377	0	0.0%	0	0.0%
Procedure Code (CPT/HCPCS/CDT)	5,245,377	410	<0.1%	2	<0.1%



		Element C	Omission	Element Surplus		
Key Data Element	Number of Matched Records	Number of Records With Values Not in DHCFP's File	Rate*	Number of Records With Values Not in MCEs' Files	Rate*	
Procedure Code Modifier	5,245,377	1,238	<0.1%	1,216	<0.1%	
NDC	5,245,377	3,704	0.1%	400	<0.1%	
Drug Quantity	5,245,377	3,704	0.1%	0	0.0%	
Header Paid Amount	5,245,377	0	0.0%	0	0.0%	
Detail Paid Amount	5,245,377	0	0.0%	0	0.0%	

^{*} Lower rates indicate better performance.

Table D-3—Element Omission and Surplus—Institutional Encounters

		Element (Omission	Element S	Element Surplus	
Key Data Element	Number of Matched Records	Number of Records With Values Not in DHCFP's File	Rate*	Number of Records With Values Not in MCEs' Files	Rate*	
Recipient ID	2,007,470	0	0.0%	55	<0.1%	
Header Service From Date	2,007,470	0	0.0%	0	0.0%	
Header Service To Date	2,007,470	0	0.0%	0	0.0%	
Detail Service From Date	2,007,470	0	0.0%	0	0.0%	
Detail Service To Date	2,007,470	0	0.0%	0	0.0%	
Billing Provider NPI	2,007,470	5,665	0.3%	0	0.0%	
Attending Provider NPI	2,007,470	33,521	1.7%	0	0.0%	
Referring Provider NPI	2,007,470	14,408	0.7%	21,803	1.1%	
Primary Diagnosis Code	2,007,470	0	0.0%	0	0.0%	
Secondary Diagnosis Code	2,007,470	95,156	4.7%	0	0.0%	
Procedure Code (CPT/HCPCS/CDT)	2,007,470	8,044	0.4%	8,048	0.4%	
Procedure Code Modifier	2,007,470	18,982	0.9%	18,948	0.9%	
Primary Surgical Procedure Code	2,007,470	633	<0.1%	19	<0.1%	
Secondary Surgical Procedure Code	2,007,470	315	<0.1%	1,454	0.1%	
NDC	2,007,470	40,322	2.0%	40,188	2.0%	
Drug Quantity	2,007,470	40,322	2.0%	0	0.0%	



		Element Omission		Element Surplus	
Key Data Element	Number of Matched Records	Number of Records With Values Not in DHCFP's File	Rate*	Number of Records With Values Not in MCEs' Files	Rate*
Revenue Code	2,007,470	8	<0.1%	0	0.0%
Header Paid Amount	2,007,470	0	0.0%	0	0.0%
Detail Paid Amount	2,007,470	0	0.0%	0	0.0%

^{*} Lower rates indicate better performance.

Table D-4—Element Omission and Surplus—Pharmacy Encounters

		Element	Omission	Element Surplus	
Key Data Element	Number of Matched Records	Number of Records With Values Not in DHCFP's File	Rate*	Number of Records With Values Not in MCOs' Files	Rate*
Recipient ID	2,447,331	0	0.0%	0	0.0%
Date of Service	2,447,331	0	0.0%	0	0.0%
Billing Provider NPI	2,447,331	23,424	1.0%	0	0.0%
Prescribing Provider NPI	2,447,331	0	0.0%	0	0.0%
NDC	2,447,331	0	0.0%	0	0.0%
Drug Quantity	2,447,331	0	0.0%	0	0.0%
Paid Amount	2,447,331	0	0.0%	0	0.0%

^{*} Lower rates indicate better performance.

Table D-5—Element Accuracy—Professional Encounters

Key Data Element	Number of Records With Values Present in Both Files	Number of Records With Same Values in Both Files	Rate
Recipient ID	5,245,286	5,243,995	>99.9%
Header Service From Date	5,245,377	5,245,374	>99.9%
Header Service To Date	5,245,377	5,245,376	>99.9%
Detail Service From Date	5,245,377	5,243,509	>99.9%
Detail Service To Date	5,245,377	5,243,506	>99.9%
Billing Provider NPI	5,078,729	4,973,754	97.9%



Key Data Element	Number of Records With Values Present in Both Files	Number of Records With Same Values in Both Files	Rate
Rendering Provider NPI	3,715,317	3,715,082	>99.9%
Referring Provider NPI	2,869,120	2,869,120	100.0%
Primary Diagnosis Code	5,245,374	5,245,374	100.0%
Secondary Diagnosis Code	3,342,687	3,246,087	97.1%
Procedure Code (CPT/HCPCS/CDT)	5,244,965	5,226,922	99.7%
Procedure Code Modifier	1,689,081	1,688,423	>99.9%
NDC	208,474	208,285	99.9%
Drug Quantity	208,874	208,418	99.8%
Header Paid Amount	5,245,377	5,114,194	97.5%
Detail Paid Amount	5,245,377	5,177,233	98.7%

Table D-6—Element Accuracy—Institutional Encounters

Key Data Element	Number of Records With Values Present in Both Files	Number of Records With Same Values in Both Files	Rate
Recipient ID	2,007,415	2,006,976	>99.9%
Header Service From Date	2,007,470	2,001,994	99.7%
Header Service To Date	2,007,470	1,980,723	98.7%
Detail Service From Date	2,007,470	1,963,399	97.8%
Detail Service To Date	2,007,470	1,963,133	97.8%
Billing Provider NPI	2,001,805	2,001,610	>99.9%
Attending Provider NPI	1,968,773	1,968,773	100.0%
Referring Provider NPI	1,773	78	4.4%
Primary Diagnosis Code	2,007,470	2,007,452	>99.9%
Secondary Diagnosis Code	1,816,939	1,635,147	90.0%
Procedure Code (CPT/HCPCS/CDT)	1,410,288	1,225,086	86.9%
Procedure Code Modifier	234,330	231,375	98.7%
Primary Surgical Procedure Code	255,942	109,460	42.8%



Key Data Element	Number of Records With Values Present in Both Files	Number of Records With Same Values in Both Files	Rate
Secondary Surgical Procedure Code	162,740	31,480	19.3%
NDC	357,572	351,741	98.4%
Drug Quantity	397,760	352,463	88.6%
Revenue Code	2,007,462	1,835,056	91.4%
Header Paid Amount	2,007,470	1,963,703	97.8%
Detail Paid Amount	2,007,470	1,835,521	91.4%

Table D-7—Element Accuracy—Pharmacy Encounters

Key Data Element	Number of Records With Values Present in Both Files	Number of Records With Same Values in Both Files	Rate
Recipient ID	2,447,331	2,447,317	>99.9%
Date of Service	2,447,331	2,447,331	100.0%
Billing Provider NPI	2,423,907	2,423,902	>99.9%
Prescribing Provider NPI	2,447,331	2,447,331	100.0%
NDC	2,447,331	2,447,331	100.0%
Drug Quantity	2,447,331	2,442,793	99.8%
Paid Amount	2,447,331	2,442,723	99.8%

Table D-8—All-Element Accuracy by Encounter Type

Encounter Type	Number of Records in Both Files	Number of Records With Same Values in Both Files	Rate
Professional	5,245,377	3,277,787	62.5%
Institutional	2,007,470	1,331,009	66.3%
Pharmacy	2,447,331	2,419,301	98.9%



Medical Record Review Results

Table D-9—MRR: Encounter Data Completeness

	Medical Reco	ord Omission	Encounter Da	nta Omission
Data Element	Denominator Percent*		Denominator	Percent*
Date of Service	611	0.7%	639	5.0%
Diagnosis Code	1,651	3.6%	1,636	2.8%
Procedure Code	1,168	13.0%	1,257	19.2%
Procedure Code Modifier	539	29.3%	394	3.3%

^{*} Lower rates indicate better performance.

Table D-10—MRR: Encounter Data Accuracy

Data Element	Denominator	Percent	Main Error Type
Diagnosis Code	1,591	99.7%	Incorrect Code (100.0%) Specificity Error (0.0%)
Procedure Code	1,016	97.2%	Incorrect Code (96.4%) Lower Level of Services in Medical Records (3.6%) Higher Level of Services in Medical Records (0.0%)
Procedure Code Modifier	381	99.7%	_
All-Element Accuracy	607	63.1%	_

[&]quot;—" denotes that the error type analysis was not applicable to a given data element.

Strengths, Weaknesses, and Recommendations

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

Strengths

Strength #1: HPN's professional encounter data appeared complete when comparing data extracted from HPN's claims systems to data extracted from DHCFP data warehouse. Encounter data records from DHCFP-submitted files were highly corroborated in HPN-submitted files.

Strength #2: Professional and pharmacy data element comparison between data extracted from HPN's claims systems and data extracted from DHCFP's data warehouse also showed complete and accurate data.

APPENDIX D. COMPARATIVE ANALYSIS AND MEDICAL RECORD REVIEW RESULTS FOR HEALTH PLAN OF NEVADA



Strength #3: Based on the medical record review, the encounter data dates of service and diagnosis codes were well supported by the members' medical record documentation. Similarly, dates of service and diagnosis codes documented in the medical records were found in the encounter data.

Weaknesses and Recommendations

Weakness #1: Procedure codes documented in the medical records were either not found in the encounter data or were found in the encounter data but should have been coded with a different procedure code.

Recommendation: HPN should consider performing periodic medical record reviews of submitted claims to verify appropriate coding and data completeness. Any findings from these reviews will then be shared with providers through periodic education and training regarding encounter data submissions, medical record documentation, and coding practices.



Appendix E. Comparative Analysis and Medical Record Review Results for SilverSummit Healthplan, Inc.

This appendix contains detailed comparative analysis and medical record review results for SilverSummit Healthplan, Inc.

Comparative Analysis Results

Table E-1—Record Omission and Surplus by Encounter Type

	Record Omission			Record Omission Record Surplus			
Encounter Data Source	Denominator	Numerator	Rate*	Denominator	Numerator	Rate*	
Professional	1,372,549	23,946	1.7%	1,375,300	26,697	1.9%	
Institutional	595,700	49,948	8.4%	556,507	10,755	1.9%	
Pharmacy	794,046	5,613	0.7%	927,383	138,950	15.0%	

^{*} Lower rates indicate better performance.

Table E-2—Element Omission and Surplus—Professional Encounters

		Element Omission		Element	Surplus
Key Data Element	Number of Matched Records	Number of Records With Values Not in DHCFP's File	Rate*	Number of Records With Values Not in MCEs' Files	Rate*
Recipient ID	1,348,603	0	0.0%	0	0.0%
Header Service From Date	1,348,603	0	0.0%	0	0.0%
Header Service To Date	1,348,603	0	0.0%	0	0.0%
Detail Service From Date	1,348,603	0	0.0%	0	0.0%
Detail Service To Date	1,348,603	0	0.0%	0	0.0%
Billing Provider NPI	1,348,603	20,324	1.5%	0	0.0%
Rendering Provider NPI	1,348,603	8,818	0.7%	363,149	26.9%
Referring Provider NPI	1,348,603	48,425	3.6%	0	0.0%
Primary Diagnosis Code	1,348,603	0	0.0%	0	0.0%
Secondary Diagnosis Code	1,348,603	0	0.0%	172,490	12.8%
Procedure Code (CPT/HCPCS/CDT)	1,348,603	65	<0.1%	3	<0.1%



		Element Omission		Element Surplus	
Key Data Element	Number of Matched Records	Number of Records With Values Not in DHCFP's File	Rate*	Number of Records With Values Not in MCEs' Files	Rate*
Procedure Code Modifier	1,348,603	115	<0.1%	11	<0.1%
NDC	1,348,603	58	<0.1%	14	<0.1%
Drug Quantity	1,348,603	25	<0.1%	0	0.0%
Header Paid Amount	1,348,603	0	0.0%	0	0.0%
Detail Paid Amount	1,348,603	0	0.0%	0	0.0%

^{*} Lower rates indicate better performance.

Table E-3—Element Omission and Surplus—Institutional Encounters

		Element Omission		Element S	Surplus
Key Data Element	Number of Matched Records	Number of Records With Values Not in DHCFP's File	Rate*	Number of Records With Values Not in MCEs' Files	Rate*
Recipient ID	545,752	0	0.0%	0	0.0%
Header Service From Date	545,752	0	0.0%	0	0.0%
Header Service To Date	545,752	0	0.0%	0	0.0%
Detail Service From Date	545,752	0	0.0%	0	0.0%
Detail Service To Date	545,752	0	0.0%	0	0.0%
Billing Provider NPI	545,752	1,241	0.2%	0	0.0%
Attending Provider NPI	545,752	9,146	1.7%	0	0.0%
Referring Provider NPI	545,752	5,295	1.0%	0	0.0%
Primary Diagnosis Code	545,752	0	0.0%	0	0.0%
Secondary Diagnosis Code	545,752	0	0.0%	14	<0.1%
Procedure Code (CPT/HCPCS/CDT)	545,752	626	0.1%	1,902	0.3%
Procedure Code Modifier	545,752	1,498	0.3%	3,001	0.5%
Primary Surgical Procedure Code	545,752	0	0.0%	0	0.0%
Secondary Surgical Procedure Code	545,752	0	0.0%	0	0.0%
NDC	545,752	1,864	0.3%	2,484	0.5%
Drug Quantity	545,752	1,862	0.3%	0	0.0%



		Element Omission		Element Surplus	
Key Data Element	Number of Matched Records	Number of Records With Values Not in DHCFP's File	Rate*	Number of Records With Values Not in MCEs' Files	Rate*
Revenue Code	545,752	2	<0.1%	8	<0.1%
Header Paid Amount	545,752	0	0.0%	0	0.0%
Detail Paid Amount	545,752	0	0.0%	0	0.0%

^{*} Lower rates indicate better performance.

Table E-4—Element Omission and Surplus—Pharmacy Encounters

		Element	Omission	Element Surplus	
Key Data Element	Number of Matched Records	Number of Records With Values Not in DHCFP's File	Rate*	Number of Records With Values Not in MCOs' Files	Rate*
Recipient ID	788,433	0	0.0%	0	0.0%
Date of Service	788,433	0	0.0%	0	0.0%
Billing Provider NPI	788,433	7,892	1.0%	0	0.0%
Prescribing Provider NPI	788,433	0	0.0%	19	<0.1%
NDC	788,433	0	0.0%	0	0.0%
Drug Quantity	788,433	0	0.0%	0	0.0%
Paid Amount	788,433	0	0.0%	0	0.0%

^{*} Lower rates indicate better performance.

Table E-5—Element Accuracy—Professional Encounters

Key Data Element	Number of Records With Values Present in Both Files	Number of Records With Same Values in Both Files	Rate
Recipient ID	1,348,603	1,348,595	>99.9%
Header Service From Date	1,348,603	1,348,593	>99.9%
Header Service To Date	1,348,603	1,348,603	100.0%
Detail Service From Date	1,348,603	1,348,585	>99.9%
Detail Service To Date	1,348,603	1,348,585	>99.9%
Billing Provider NPI	1,328,279	1,280,354	96.4%



Key Data Element	Number of Records With Values Present in Both Files	Number of Records With Same Values in Both Files	Rate
Rendering Provider NPI	973,190	972,774	>99.9%
Referring Provider NPI	641,494	641,494	100.0%
Primary Diagnosis Code	1,348,603	1,205,058	89.4%
Secondary Diagnosis Code	689,445	642,658	93.2%
Procedure Code (CPT/HCPCS/CDT)	1,348,534	1,348,315	>99.9%
Procedure Code Modifier	374,950	374,941	>99.9%
NDC	60,451	60,446	>99.9%
Drug Quantity	60,465	34,636	57.3%
Header Paid Amount	1,348,603	1,347,229	99.9%
Detail Paid Amount	1,348,603	1,347,014	99.9%

Table E-6—Element Accuracy—Institutional Encounters

Key Data Element	Number of Records With Values Present in Both Files	Number of Records With Same Values in Both Files	Rate
Recipient ID	545,752	545,752	100.0%
Header Service From Date	545,752	545,752	100.0%
Header Service To Date	545,752	545,752	100.0%
Detail Service From Date	545,752	537,748	98.5%
Detail Service To Date	545,752	537,747	98.5%
Billing Provider NPI	544,511	544,493	>99.9%
Attending Provider NPI	536,606	536,606	100.0%
Referring Provider NPI	0	0	NA
Primary Diagnosis Code	545,752	545,752	100.0%
Secondary Diagnosis Code	496,884	496,884	100.0%
Procedure Code (CPT/HCPCS/CDT)	373,792	355,875	95.2%
Procedure Code Modifier	66,585	66,307	99.6%
Primary Surgical Procedure Code	71,204	71,204	100.0%



Key Data Element	Number of Records With Values Present in Both Files	Number of Records With Same Values in Both Files	Rate
Secondary Surgical Procedure Code	45,844	45,769	99.8%
NDC	92,872	90,176	97.1%
Drug Quantity	95,356	82,822	86.9%
Revenue Code	545,710	532,789	97.6%
Header Paid Amount	545,752	545,018	99.9%
Detail Paid Amount	545,752	534,274	97.9%

Table E-7—Element Accuracy—Pharmacy Encounters

Key Data Element	Number of Records With Values Present in Both Files	Number of Records With Same Values in Both Files	Rate
Recipient ID	788,433	788,288	>99.9%
Date of Service	788,433	788,433	100.0%
Billing Provider NPI	780,541	780,541	100.0%
Prescribing Provider NPI	788,413	788,412	>99.9%
NDC	788,433	786,955	99.8%
Drug Quantity	788,433	786,900	99.8%
Paid Amount	788,433	775,191	98.3%

Table E-8—All-Element Accuracy by Encounter Type

Encounter Type	Number of Records in Both Files	Number of Records With Same Values in Both Files	Rate
Professional	1,348,603	705,194	52.3%
Institutional	545,752	499,308	91.5%
Pharmacy	788,433	767,055	97.3%



Medical Record Review Results

Table E-9—MRR: Encounter Data Completeness

	Medical Record Omission		Encounter Da	nta Omission
Data Element	Denominator Percent*		Denominator	Percent*
Date of Service	472	40.7%	282	0.7%
Diagnosis Code	1,308	42.0%	767	1.0%
Procedure Code	1,056	43.3%	683	12.3%
Procedure Code Modifier	389	54.0%	182	1.6%

^{*} Lower rates indicate better performance.

Table E-10—MRR: Encounter Data Accuracy

Data Element	Denominator	Percent	Main Error Type
Diagnosis Code	759	99.7%	Incorrect Code (100.0%) Specificity Error (0.0%)
Procedure Code	599	99.0%	Incorrect Code (100.0%) Lower Level of Services in Medical Records (0.0%) Higher Level of Services in Medical Records (0.0%)
Procedure Code Modifier	179	100.0%	_
All-Element Accuracy	280	66.8%	_

[&]quot;—" denotes that the error type analysis was not applicable to a given data element.

Strengths, Weaknesses, and Recommendations

Based on the questionnaire responses received from **SilverSummit**, results from the comparative analysis, and results from the medical record review, HSAG identified the following areas of strength and opportunities for improvement. Along with each opportunity for improvement, HSAG has also provided a recommendation to help target improvement efforts.

Strengths

Strength #1: SilverSummit demonstrated its capability to collect, process, and transmit encounter data to DHCFP, as well as develop data review and correction processes that can promptly respond to quality issues identified by DHCFP.

Strength #2: SilverSummit's professional encounter data appeared complete when comparing data extracted from SilverSummit's claims system to data extracted from DHCFP's data warehouse. Encounter data records from DHCFP-submitted files were highly corroborated in SilverSummit-submitted files.



Strength #3: Pharmacy data element comparison between data extracted from **SilverSummit** claims systems and data extracted from DHCFP's data warehouse also showed complete and accurate data.

Weaknesses and Recommendations

Weakness #1: SilverSummit had challenges requesting medical records from its contracted providers, resulting in a low medical record procurement rate. The low medical record procurement rate consequently impacted the results of the medical record reviews of key data element that were evaluated.

Recommendation: To ensure **SilverSummit**'s contracted provider accountability in addressing submission of medical records for auditing, inspection, and examination related to its members, **SilverSummit** should consider strengthening and/or enforcing its contract requirements with providers in providing the requested documentation.

Weakness #2: Procedure codes documented in the medical records were either not found in the encounter data or were found in the encounter data but should have been coded with a different procedure code.

Recommendation: SilverSummit should consider performing periodic medical record reviews of submitted claims to verify appropriate coding and data completeness. Any findings from these reviews will then be shared with providers through periodic education and training regarding encounter data submissions, medical record documentation, and coding practices.



Appendix F. Comparative Analysis and Dental Record Review Results for LIBERTY Dental Plan of Nevada, Inc.

This appendix contains detailed comparative analysis and dental record review results for LIBERTY Dental Plan of Nevada, Inc.

Comparative Analysis Results

Table F-1—Record Omission and Surplus by Encounter Type

	Record Omission			Record Surplus		
Encounter Data Source	Denominator	Numerator	Rate*	Denominator	Numerator	Rate*
Dental	1,736,335	31,012	1.8%	1,721,993	16,670	1.0%

^{*} Lower rates indicate better performance.

Table F-2—Element Omission and Surplus—Dental Encounters

		Element (Omission	Element Surplus	
Key Data Element	Number of Matched Records	Number of Records With Values Not in DHCFP's File	Rate*	Number of Records With Values Not in MCEs' Files	Rate*
Recipient ID	1,705,323	0	0.0%	0	0.0%
Header Service From Date	1,705,323	0	0.0%	0	0.0%
Header Service To Date	1,705,323	0	0.0%	0	0.0%
Detail Service From Date	1,705,323	0	0.0%	0	0.0%
Detail Service To Date	1,705,323	7,683	0.5%	0	0.0%
Billing Provider NPI	1,705,323	87,882	5.2%	0	0.0%
Rendering Provider NPI	1,705,323	4,371	0.3%	0	0.0%
Procedure Code (CPT/HCPCS/CDT)	1,705,323	21	<0.1%	0	0.0%
Tooth Number	1,705,323	224	<0.1%	5	<0.1%
Oral Cavity Code	1,705,323	25	<0.1%	1	<0.1%
Tooth Surface 1	1,705,323	61	<0.1%	3	<0.1%
Tooth Surface 2	1,705,323	12	<0.1%	0	0.0%
Tooth Surface 3	1,705,323	4	<0.1%	0	0.0%



		Element (Omission	Element Surplus	
Key Data Element	Number of Matched Records	Number of Records With Values Not in DHCFP's File	Rate*	Number of Records With Values Not in MCEs' Files	Rate*
Tooth Surface 4	1,705,323	19	<0.1%	1	<0.1%
Tooth Surface 5	1,705,323	1	<0.1%	0	0.0%
Header Paid Amount	1,705,323	0	0.0%	0	0.0%
Detail Paid Amount	1,705,323	0	0.0%	0	0.0%

^{*} Lower rates indicate better performance.

Table F-3—Element Accuracy—Dental Encounters

Key Data Element	Number of Records With Values Present in Both Files	Number of Records With Same Values in Both Files	Rate
Recipient ID	1,705,323	1,705,152	>99.9%
Header Service From Date	1,705,323	1,705,321	>99.9%
Header Service To Date	1,705,323	1,705,305	>99.9%
Detail Service From Date	1,705,323	1,705,319	>99.9%
Detail Service To Date	1,697,640	1,697,637	>99.9%
Billing Provider NPI	1,617,441	1,578,316	97.6%
Rendering Provider NPI	1,700,952	1,700,624	>99.9%
Procedure Code (CPT/HCPCS/CDT)	1,705,302	1,705,043	>99.9%
Tooth Number	640,047	640,002	>99.9%
Oral Cavity Code	23,140	22,844	98.7%
Tooth Surface 1	139,418	139,418	100.0%
Tooth Surface 2	80,152	80,151	>99.9%
Tooth Surface 3	18,593	18,593	100.0%
Tooth Surface 4	3,409	3,409	100.0%
Tooth Surface 5	736	736	100.0%
Header Paid Amount	1,705,323	1,695,976	99.5%
Detail Paid Amount	1,705,323	1,699,379	99.7%



Table F-4—All-Element Accuracy by Encounter Type

Encounter Type		Number of Records With Same Values in Both Files	Rato
Dental	1,705,323	1,559,459	91.4%

Dental Record Review Results

Table F-5—Dental Record Review: Encounter Data Completeness

	Dental Record Omission		Encounter Da	ta Omission
Data Element	Denominator	enominator Percent*		Percent*
Date of Service	483	4.3%	485	4.7%
Procedure Code	2,620	11.0%	3,049	23.5%

^{*} Lower rates indicate better performance.

Table F-6—Dental Record Review: Encounter Data Accuracy

Data Element	Denominator	Percent	Main Error Type
Procedure Code	2,333	88.6%	_
All-Element Accuracy	462	19.0%	_

[&]quot;—" denotes that the error type analysis was not applicable to a given data element.

Strengths, Weaknesses, and Recommendations

Based on the questionnaire responses received from **LIBERTY**, results from the comparative analysis, and results from the dental record review, HSAG identified the following areas of strength and opportunities for improvement. Along with each opportunity for improvement, HSAG has also provided a recommendation to help target improvement efforts.

Strengths

Strength #1: LIBERTY demonstrated its capability to collect, process, and transmit encounter data to DHCFP, as well as develop data review and correction processes that can promptly respond to quality issues identified by DHCFP.

Strength #2: LIBERTY's dental encounter data appeared complete when comparing data extracted from **LIBERTY**'s claims system to data extracted from DHCFP's data warehouse. Encounter data records from DHCFP-submitted files were highly corroborated in **LIBERTY**-submitted files.

Strength #3: Data element comparison between the data extracted from **LIBERTY** claims systems and data extracted from DHCFP's data warehouse also showed complete and accurate data.

APPENDIX F. INFORMATION SYSTEMS REVIEW, COMPARATIVE ANALYSIS, AND DENTAL RECORD REVIEW RESULTS FOR LIBERTY DENTAL PLAN OF NEVADA, INC.



Strength #4: Based on the dental record review, the encounter dates of service were well supported by the members' dental record documentation. Similarly, dates of service documented within the members' dental records were found in the encounter data.

Weaknesses and Recommendations

Weakness #1: Dental procedure codes documented in the dental records were either not found in the encounter data or were found in the encounter data but should have been coded with a different procedure code.

Recommendation: LIBERTY should consider performing periodic dental record reviews of submitted claims to verify appropriate coding and data completeness. Any findings from these reviews will then be shared with providers through periodic education and training regarding encounter data submissions, dental record documentation, and coding practices.



Appendix G. Responses From the MCOs and DBA

Each plan was given an opportunity to respond and provide feedback on a draft version of the EDV report. Responses from each MCO and the DBA are listed below.

EDV Responses—MCO

Anthem Blue Cross and Blue Shield Healthcare Solutions

Anthem has reviewed the EDV report and provided the following feedback/comments.

After reviewing the findings below and subsequently analyzing our data extract, claims system and encounters records, the following are the explanations for each data element listed:

For Professional Encounters:

- Secondary Diagnosis Code A mapping issue was discovered in the extract coding that resulted in all secondary diagnosis codes being mapped from the 2nd other diagnosis instead of the 1st other diagnosis code. This resulted in all 25 other diagnosis codes being mapped in the wrong position. Mapping changes have been made to fix this issue.
- Drug Quantity A mapping issue was discovered in the extract coding that resulted in drug quantity being mapped in all lines of the claim(s), instead of the lines that only correlate to an NDC procedure code. Mapping changes has been made to fix this issue.

For Institutional Encounters:

- Detail Service From and To Date A mapping issue was discovered in the extract coding that pulling the minimum and maximum date of service fields from all claim service lines. Mapping changes has been made to fix this.
- Secondary Diagnosis Code A mapping issue was discovered in the extract coding that resulted in all secondary diagnosis codes being mapped from the 2nd other diagnosis instead of the 1st other diagnosis code. This resulted in all 25 other diagnosis codes being mapped in the wrong position. Mapping changes have been made to fix this issue.
- Drug Quantity A mapping issue was discovered in the extract coding that resulted in drug quantity being mapped in all lines of the claim(s), instead of the lines that only correlate to an NDC procedure code. Mapping changes has been made to fix this issue.

All mapping issues have been addressed by our IT partners. In addition, data extract quality control process improvements have been completed and are ongoing to ensure a higher level of data element accuracy. As with similar plan audits, a small subset of data to validate improvements have been successful.



Health Plan of Nevada

HPN has reviewed the EDV report and has no feedback/comments on the information reflected in this report.

SilverSummit Healthplan, Inc.

SilverSummit has reviewed the EDV report and has no feedback/comments on the information reflected in this report.

EDV Responses—DBA

LIBERTY Dental Plan of Nevada, Inc.

LIBERTY has reviewed the EDV report and has no feedback/comments on the information reflected in this report.