FY 2018–2019
412 Independent Audit Report
for Denver Health Medicaid Choice

June 2019

Contents

Background

In fiscal year (FY) 2018–2019, the Colorado Department of Health Care Policy and Financing (the Department) contracted Health Services Advisory Group, Inc. (HSAG), to conduct encounter data validation among the Department's contracted Medicaid managed care organizations (MCOs) as an optional External Quality Review (EQR) task under the Centers for Medicare & Medicaid Services (CMS) Medicaid Guidelines.[1]

The study assesses the MCOs' data validation capacity among encounters submitted to the Department by each MCO. The study aims to evaluate each MCO's compliance with State standards regarding encounter data submission as well as the consistency and accuracy with which the MCO audits encounter data through the use of medical record review.

This report addresses findings for the **Denver Health Medicaid Choice** (**DHMC**) managed care plan.

To facilitate this assessment, the Department randomly selected 103 final, adjudicated physical health encounters from four distinct service categories (i.e., a total of 412 encounters) to be audited by **DHMC**. These service categories included encounters with services rendered in federally qualified health centers (FQHCs), as well as in inpatient, outpatient, and professional settings. **DHMC** submitted the internal audit results and an encounter data quality report to HSAG and the Department.

To further improve the quality of encounter data submitted by **DHMC**, the Department developed and implemented the MCO Encounter Data Quality Review Guidelines (guidelines). The guidelines include file format and reporting requirements as well as a specific timeline to guide **DHMC** in conducting its internal audit and using the audit results to prepare the Encounter Data Submission Quality Report and Service Coding Accuracy Report.

The Department contracted HSAG to evaluate each MCO's capacity to internally audit encounters through an independent assessment of the MCO's service coding accuracy results. Specifically, the Department requested HSAG to complete the following tasks during FY 2018–2019:

1. Conduct a desk review of each MCO's audit process, including any audit documentation submitted by the MCO.
2. Conduct a review of medical records for cases randomly selected from each service category's 103 sample list, which was generated by the Department.
3. Produce an MCO-specific report with findings specific to each service category, including a statement regarding HSAG's assessment of the accuracy of each MCO's internal audit results.

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[1] Department of Health and Human Services, Centers for Medicare & Medicaid Services. *EQR Protocol 4: Validation of Encounter Data Reports by the MCO: A Voluntary Protocol for External Quality Review (EQR)*. Version 2.0. September 2012. Available at https://www.medicaid.gov/medicaid/quality-of-care/medicaid-managed-care/external-quality-review/index.html. Accessed on: March 28, 2019.

Methodology

HSAG's independent audit consisted primarily of an assessment of **DHMC**'s internal audit results through an over-read of medical records for a sample of randomly selected encounters. HSAG recommended a sampling strategy to the Department to ensure that audit cases were generated randomly from a representative base of encounters eligible for inclusion in this study. HSAG's review of the Department's sampling protocol was limited to an assessment of sampling methodology documentation provided by the Department.

The second component of HSAG's independent audit was to evaluate whether **DHMC**'s internal audit of the sampled encounters against members' medical records was accurate and consistent with standard coding manuals. HSAG received a response file containing **DHMC**'s internal audit results for the 412 cases sampled by the Department. Prior to receiving **DHMC**'s internal audit results, HSAG generated an over-read sample of 20 cases for each of the four service categories (80 cases overall). The evaluation process included the following steps:

1. Generation of Over-Read Samples

The Department developed a 412-case sample of final adjudicated **DHMC** encounters paid between October 1, 2017, and September 30, 2018, for four physical health service categories.[2,3] The Department submitted the sample lists to **DHMC** and HSAG in January 2019; **DHMC** then conducted its internal audit on the sampled encounters.

HSAG used the sample lists from the Department to generate an over-read sample using a two-stage sampling approach. Under this sampling approach, HSAG randomly selected 20 identification numbers for unique individuals from each service category and then selected a single encounter line for each of the 20 individuals, resulting in a list of 20 randomly selected encounter lines per service category and 80 cases overall. A single health event could result in a member having encounters for both the Inpatient Services and the Professional Services categories; therefore, HSAG assessed the service category lists to ensure that no members were included in multiple service categories.

2. Audit Tool Development

DHMC submitted its response file containing internal audit results for the 412 sampled cases to HSAG in March 2019. HSAG designed a web-based data collection tool and tool instructions based on the guidelines and on standard national coding manuals. As a result of the unique data fields and coding standards required for inpatient encounters, HSAG's web-based tool included separate data collection screens for inpatient encounters versus those used for ambulatory-type encounters (i.e., FQHC,

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[2] Service categories were identified using the cat_serv field assigned to each encounter by the Department. Cat_serv values of "0" identified Professional Services, "1" identified Inpatient Services, "4" identified services rendered at an FQHC, and "5" and "2" identified Outpatient Services. The Department assigns claims to service categories according to a hierarchy, and each claim may be assigned to only a single category.

[3] The Department's data layout for **DHMC** encounter data flat files is presented for reference in Appendix A.

outpatient, and professional). A control file containing select fields from the Department's encounter data flat file as well as **DHMC**'s corresponding internal audit values for sampled cases was uploaded into the tool, permitting pre-population of encounter and audit information for each case. Pre-populated information could not be altered, and HSAG's coders were required to actively select an over-read response for each data element. Corresponding medical records procured by **DHMC** were linked to cases within the tool. The web-based tool allowed the HSAG analyst to extract MS Excel files containing encounter data, **DHMC** audit responses, and HSAG coder responses specific to each encounter type (i.e., service category).

3. HSAG's Over-Read Process

HSAG evaluated the accuracy of **DHMC**'s audit findings in April 2019. More specifically, the HSAG reviewers validated **DHMC**'s accuracy in auditing the providers' submitted encounter data in accordance with the national code sets: International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM); International Classification of Diseases, Procedural Modification (ICD-10-PM); Current Procedural Terminology (CPT); Healthcare Common Procedure Coding System (HCPCS); and the 1995 Evaluation and Management (E&M) documentation guidelines. HSAG's over-read did not evaluate the quality of the medical record documentation or the provider's accuracy in submitting encounter data, only whether **DHMC**'s audit responses were accurate based on the review of the supporting medical record documentation submitted by **DHMC**. All over-read results were entered into the HSAG audit tool.

HSAG trained five certified coders to conduct the over-read. During the over-read of the outpatient claim types, the coders located the selected date of service in the submitted medical records to determine whether the ICD-10-CM and CPT or HCPCS codes pre-populated in the audit tool from the encounter data flat file were supported by the submitted medical record documentation and in alignment with the criteria outlined in the review and code set guidelines. During the over-read of the inpatient claim types, the coders located the selected date of service in the submitted medical records to determine whether or not the ICD-10-PM and the ICD-10-CM codes pre-populated in the audit tool from the encounter data flat file were supported by the submitted medical record documentation and in alignment with the criteria outlined in the review and code set guidelines. The HSAG coders then determined whether **DHMC** agreed or disagreed with the accuracy of the codes submitted by the provider. If the HSAG coder agreed with **DHMC**'s response, an agreement response was recorded in the tool. If the HSAG coder disagreed with **DHMC**'s response, a disagreement response was recorded in the tool. The findings of this over-read were based on HSAG's percent of agreement or disagreement with **DHMC**'s responses.

Prior to beginning abstraction, coders participated in an interrater reliability (IRR) assessment using training cases. To proceed with abstraction on study cases, coders were required to score 95 percent or higher on the post-training IRR. If this threshold was not met, the nurse manager provided re-training, including abstraction of additional test cases.

During the over-read period, HSAG conducted an ongoing IRR assessment by randomly selecting a minimum of 10 percent of cases per coder and comparing the over-read results to those from a second

coder. For cases in which over-read discrepancies were identified between the first and second coders, a third "Gold Standard" review was conducted that provided a final determination regarding the appropriate over-read result. Any IRR result that fell below 95 percent required further evaluation by the nurse manager and possible re-training of the coder(s).

4. Analysis Process

Following completion of the over-read, the HSAG analyst exported results from the over-read tool for each service category. Because data elements varied by claim type, results were not aggregated across the service categories. The analyst reviewed the coders' over-read notes, and notes requiring further information were addressed with the nurse manager.

The HSAG analyst assessed the over-read results to determine the percentage of records per service category for which the HSAG coder agreed with **DHMC**'s internal audit response. Results were displayed by service category for data elements that were audited by **DHMC** and overread by HSAG. Over-read analysis results were independently verified by a second HSAG analyst.

Results

Desk Review

Sampling Methodology

The Department provided HSAG with a brief description of the process used to generate a random sample of **DHMC**'s encounters. The Department's documentation listed the criteria by which encounters were assigned to service categories and noted that that sample was restricted to final adjudicated encounters paid within the study period. The Department also detailed the random sampling process for identifying 103 unique encounters per service category and randomly selecting a single encounter line; the Department defined encounters using the member identification data field. The Department did not include any information regarding validation of the sample that was produced. Based on the information provided, HSAG was unable to determine if the Department ensured that the sample was both random and representative of the underlying data.

HSAG reviewed the sample list provided by the Department, the sampling process description, and the portion of sampling code used by the Department to generate the sample. Sample selection used the SQL SAMPLE() function to obtain a random sample of observations within each service category.

DHMC's Internal Audit Methodology

To provide context for **DHMC**'s Encounter Data Submission Quality Report and Service Coding Accuracy Report, the Department requested **DHMC**'s internal audit methodology documentation as a component of the Service Coding Accuracy Report. HSAG's review of **DHMC**'s internal audit methodology documentation verified the presence of:

- A list of coding guidelines referenced for its auditing process.
- A description of the record procurement and audit process, including the use of a company subsidiary (i.e., Denver Health Enterprise Compliance Services within Denver Health and Hospital Authority) for various audit tasks.
- A brief description of the audit tool, a shared MS Excel spreadsheet, and a brief description of the instructions provided to the reviewers.
  - **DHMC** provided no examples of specific instructions or reviewer training materials.
- The credentials, training, and experience of all reviewers.
- The rater reliability testing process for audit validation.

Over-Read of Sample Cases by Service Category

The audit response file submitted by **DHMC** contained all required audit fields and aligned with the audit response file layout required by the Department and outlined in the guidelines. **DHMC** was unable to procure medical records for one inpatient case and two outpatient cases; however, HSAG's coders agreed with **DHMC**'s audit responses for these cases. The audit response data layout is presented in Appendix B.

The remainder of this section details HSAG's over-read findings by service category. For reference, Appendix C presents, by service category, **DHMC**'s internal audit results found in its Service Coding Accuracy Report.

In addition to the results presented in this report, HSAG has provided the Department with supplemental spreadsheets detailing, by claim type, the nature of the disagreement for any data element about which HSAG's coder disagreed with **DHMC**'s audit determination. This MS Excel workbook is referenced in the remainder of the report as the Case-Level Disagreement List.

Inpatient Cases

Figure 1 presents the aggregate results from HSAG's over-read of the 20 inpatient cases. Agreement values range from 80.0 percent to 95.0 percent for individual elements, where 100 percent represents complete agreement between **DHMC**'s internal audit results and HSAG's over-read results, and 0 percent represents complete disagreement.

**Figure 1—Aggregated Percent of Agreement Between
HSAG's Over-Read and DHMC's Internal Audit Findings, by Data Element
Inpatient Services**
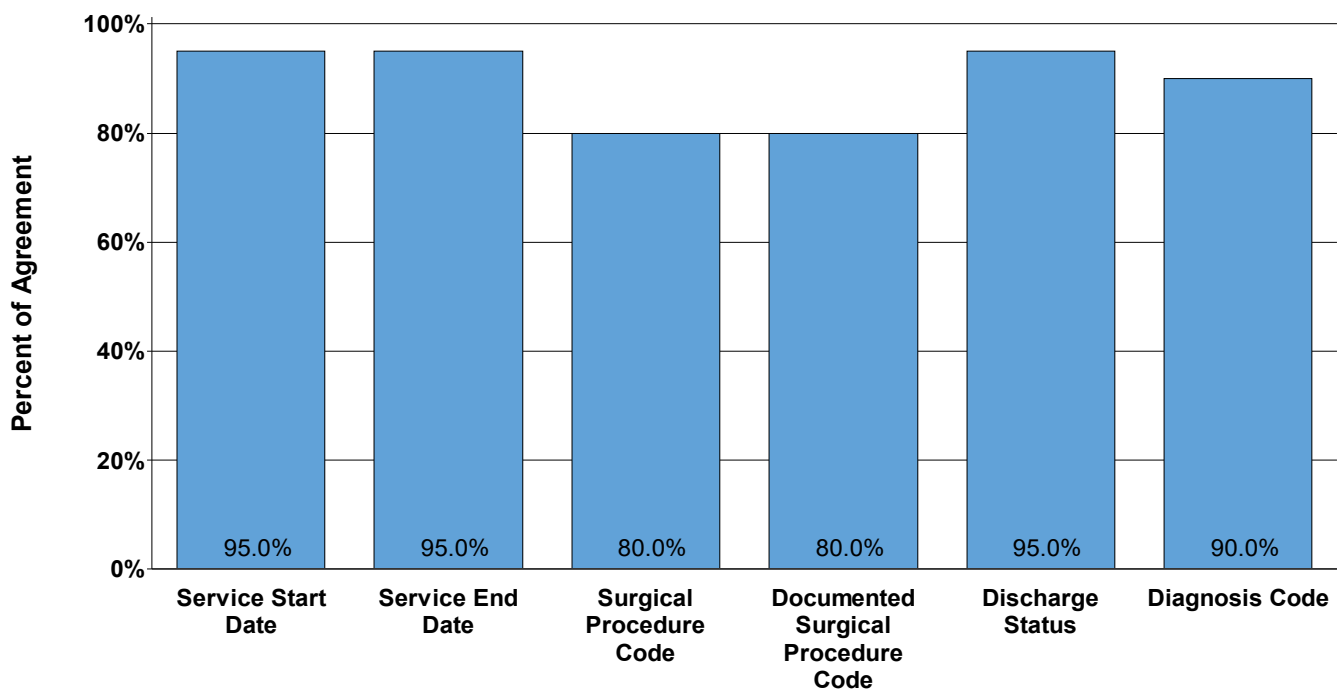
Complete agreement for a sampled inpatient encounter occurred when HSAG's over-read results indicated agreement with **DHMC**'s audit response for each of the six assessed data elements. Of the 20 sampled inpatient encounters, over-read results demonstrated complete agreement for 15 cases, producing a 75.0 percent aggregate agreement rate. HSAG's over-read results did not achieve 100 percent agreement for any of the six audited elements. The highest agreement rates (each 95.0 percent) were observed for the *Service Start Date*, *Service End Date,* and *Discharge Status* data elements. The lowest agreement rates (each 80.0 percent) were observed for the *Surgical Procedure Code* and *Documented Surgical Procedure Code* data elements.

HSAG's reviewers determined that medical record documentation did not align with the encounter data or **DHMC** documented information for 13 audited data elements for which **DHMC**'s audit results were

inconsistent with HSAG's over-read results. The 13 data elements in disagreement represented five sampled over-read cases.

Outpatient Cases

Figure 2 presents the aggregate results from HSAG's over-read of the 20 outpatient cases. Agreement values range from 95.0 percent to 100 percent for individual elements, where 100 percent represents complete agreement between **DHMC**'s internal audit results and HSAG's over-read results, and 0 percent represents complete disagreement.

**Figure 2—Aggregated Percent of Agreement Between
HSAG's Over-Read and DHMC's Internal Audit Findings, by Data Element
Outpatient Services**
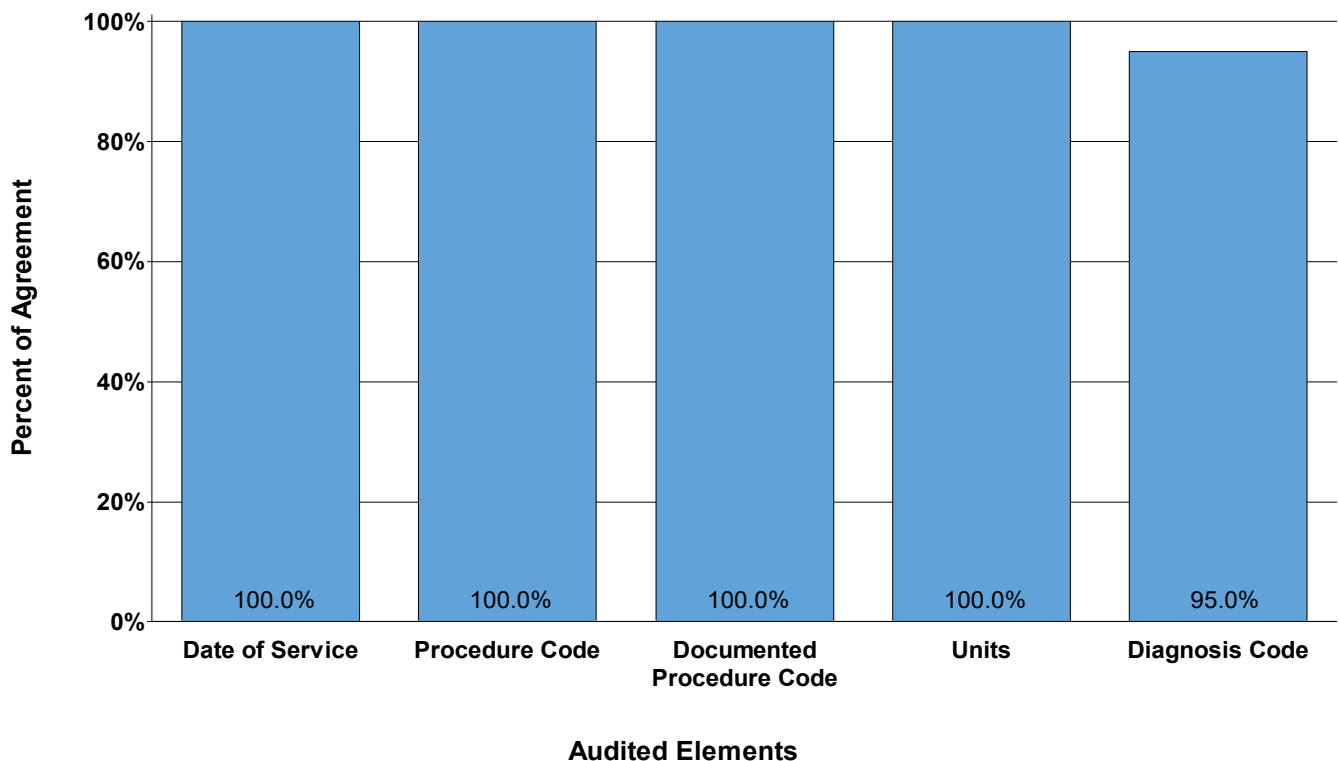
Complete agreement occurred when HSAG's over-read results indicated agreement with **DHMC**'s audit response for each of the five individual data elements assessed for a sampled outpatient encounter. Of the 20 sampled outpatient encounters, over-read results demonstrated complete agreement for 19 cases, producing a 95.0 percent aggregate agreement rate. HSAG's over-read results agreed with **DHMC**'s audit responses for all cases (i.e., complete agreement) for the *Date of Service*, *Procedure* Code, *Documented Procedure Code*, and *Units* data elements. The lowest agreement rate (95.0 percent) was observed for the *Diagnosis Code* data element.

HSAG's reviewers determined that medical record documentation aligned with the encounter data for the one audited data element for which **DHMC**'s audit results were inconsistent with HSAG's over-read results.

Professional Cases

Figure 3 presents the aggregate results from HSAG's over-read of the 20 professional cases. Agreement values range from 90.0 percent to 100 percent for individual elements, where 100 percent represents complete agreement between **DHMC**'s internal audit results and HSAG's over-read results, and 0 percent represents complete disagreement.

**Figure 3—Aggregated Percent of Agreement Between
HSAG's Over-Read and DHMC's Internal Audit Findings, by Data Element
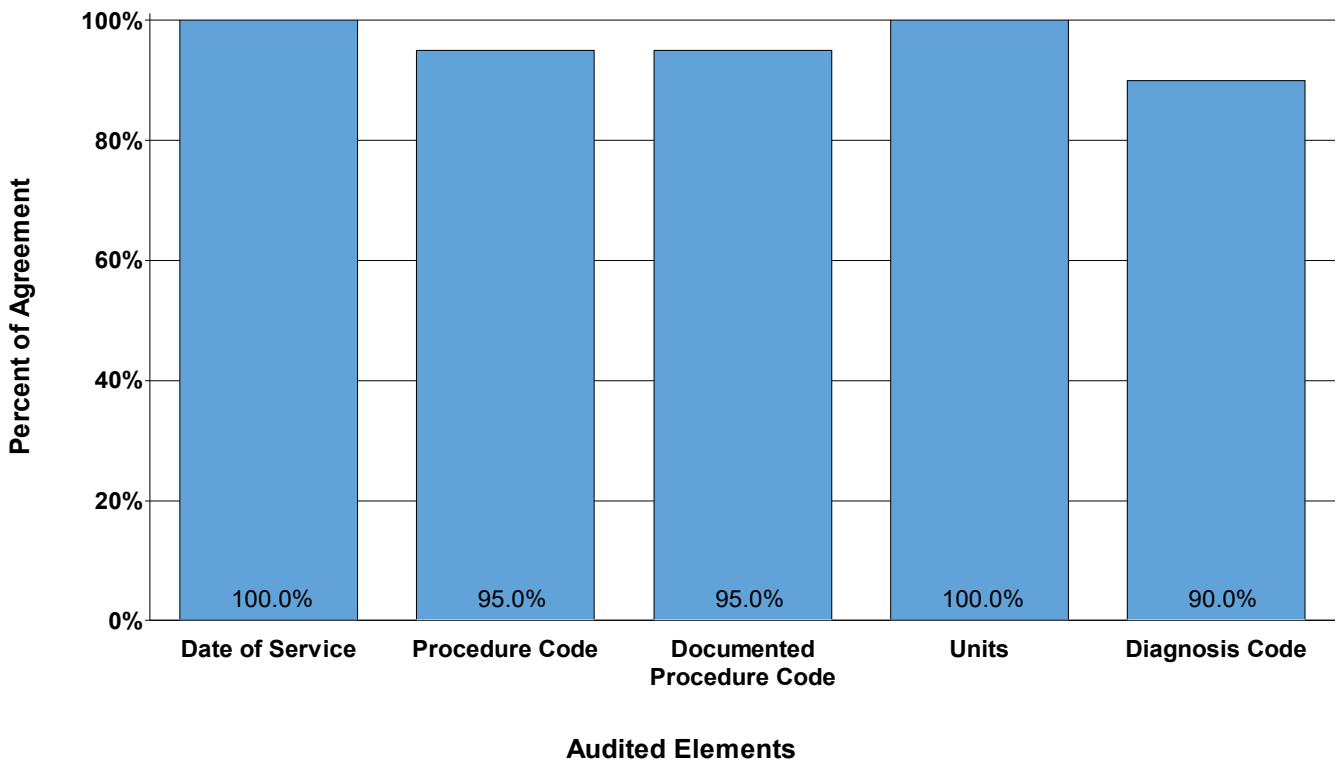Professional Services**

Complete agreement occurred when HSAG's over-read results indicated agreement with **DHMC**'s audit response for each of the five individual data elements assessed for a sampled professional encounter. Of the 20 sampled professional encounters, over-read results demonstrated complete agreement for 17 cases, producing an 85.0 percent aggregate agreement rate. HSAG's over-read results agreed with **DHMC**'s audit responses for all cases (i.e., complete agreement) for the *Date of Service* and *Units* data elements. The lowest agreement rate (90.0 percent) was observed for the *Diagnosis Code* data element.

HSAG's reviewers determined that medical record documentation did not align with the encounter data or **DHMC** documented information for four audited data elements for which **DHMC**'s audit results were inconsistent with HSAG's over-read results. The four data elements in disagreement represented three sampled over-read cases.

FQHC Cases

Figure 4 presents the aggregate results from HSAG's over-read of the 20 FQHC cases. Agreement values range from 90.0 percent to 100 percent for individual elements, where 100 percent represents complete agreement between **DHMC**'s internal audit results and HSAG's over-read results, and 0 percent represents complete disagreement.

**Figure 4—Aggregated Percent of Agreement Between
HSAG's Over-Read and DHMC's Internal Audit Findings, by Data Element
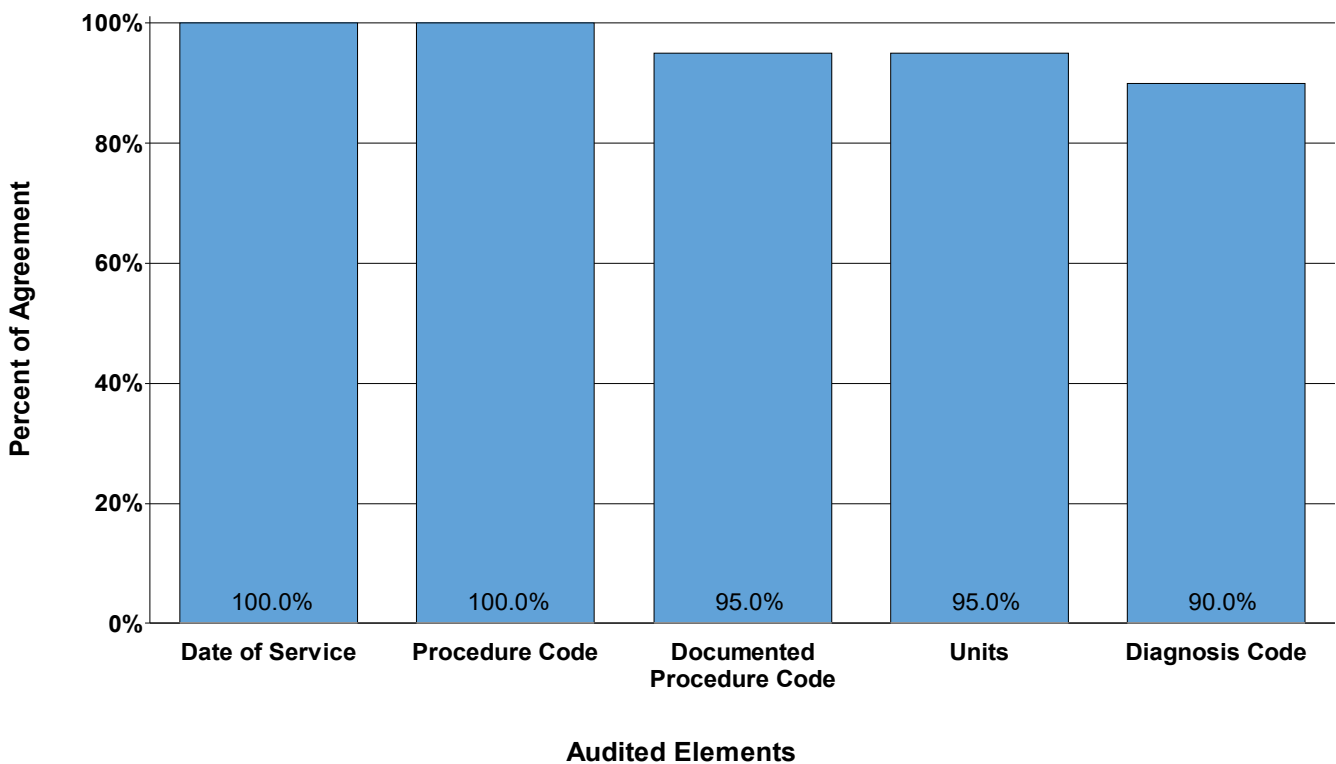FQHC Services**

Complete agreement occurred when HSAG's over-read results indicated agreement with **DHMC**'s audit response for each of the five individual data elements assessed for a sampled FQHC encounter. Of the 20 sampled FQHC encounters, over-read results demonstrated complete agreement for 17 cases, producing an 85.0 percent aggregate agreement rate. HSAG's over-read results agreed with **DHMC**'s audit responses for all cases (i.e., complete agreement) for the *Date of Service* and *Procedure Code* data elements. The lowest agreement rate (90.0 percent) was observed for the *Diagnosis Code* data element.

HSAG's reviewers determined that medical record documentation did not align with the encounter data or **DHMC** documented information for three of the four audited data elements for which **DHMC**'s audit results were inconsistent with HSAG's over-read results. The four data elements in disagreement represented three sampled over-read cases.

Conclusions

HSAG performed a desk review of the Department's sampling methodology, assessing documentation that outlined key steps in the Department's generation of the 412-case sample. This review confirmed that the Department took steps to select a random sample of unique encounters from the four service categories of interest within the specified measurement period. The Department provided no details regarding a run-out interval between the study measurement period and the date on which the encounters were compiled for sample generation. Depending on the Department's data collection and storage processes, the length of a run-out interval prior to sampling could limit the encounters included in the study, biasing the sample toward encounters for services occurring earlier in the study period.

HSAG's over-read results indicated complete agreement with **DHMC**'s internal audit results for 68 of the 80 sampled encounters, resulting in an 85.0 percent agreement rate. Table 1 shows case-level and element-level accuracy rates by service category.

Table 1—Percent of Cases in Total Agreement and Percent of Element Accuracy by Service Category

Service Category	Case-Level Accuracy		Element-Level Accuracy	
	Total Number of Cases	Percent With Complete Agreement	Total Number of Elements	Percent With Complete Agreement
Inpatient	20	75.0	120	89.2
Outpatient	20	95.0	100	99.0
Professional	20	85.0	100	96.0
FQHC	20	85.0	100	96.0
Total	**80**	**85.0**	**420**	**94.8**

HSAG's coders determined that, rather than insufficient medical record documentation, misalignment between medical record documentation and encounter data contributed to nearly all cases in which HSAG's coders disagreed with **DHMC**'s audit results. **DHMC** provided medical record documentation for 77 of the 80 sampled over-read cases, and HSAG's over-read results were not impacted by **DHMC**'s medical record procurement for this study.

Results from HSAG's FY 2018–2019 MCO over-read suggest a moderate level of confidence that **DHMC**'s audit findings accurately reflect its encounter data quality. Overall, results from HSAG's FY 2018–2019 MCO over-read showed that HSAG's coders agreed with **DHMC**'s reviewers for 94.8 percent of individual audited data elements. Agreement rates among the service categories ranged from 89.2 percent for inpatient cases to 99.0 percent for outpatient cases. As reported in **DHMC**'s Service

Coding Accuracy Report, **DHMC**'s reviewers consistently recorded lower agreement rates for *Diagnosis Code* and *Procedure Code*, suggesting opportunities for root cause analyses to determine barriers to encounter data quality.

Recommendations

The Department designed this study to assess the accuracy with which **DHMC** audits physical health encounters in support of the Department's overall encounter data quality efforts. Therefore, HSAG recommends that findings associated with this independent audit be used for the Department's information and not for performance measurement or compliance monitoring purposes.

The Department continues to transition its encounter data process to a new Medicaid Management Information System (MMIS), interChange; and **DHMC** will submit encounter data directly into the MMIS. For validation purposes, **DHMC** will continue to submit encounter data flat files to the Department in parallel with MMIS submissions for a period of time determined by the Department. This change to the encounter data process will require enhanced data monitoring by the Department and **DHMC** to ensure encounter data timeliness and accuracy as well as comparability between encounter data provided by **DHMC** under the new and legacy systems.

As FY 2018–2019 is the fourth year of the independent MCO audit, HSAG requested the Department's input regarding quality improvement actions resulting from recommendations in the FY 2017–2018 report; and the Department offered the following updates:

- The Department continues to work with its encounter data system vendor to improve the encounter data documentation guiding the MCOs' data submissions.
- **DHMC** continues to submit encounter data to the Department as flat files, and both entities are collaborating to standardize the flat-file format.
- To support the transition to encounter data submission via interChange, the Department hosts bi-weekly Health Plan Systems meetings for stakeholders; and **DHMC** participates in these meetings.
- The Department reported that it standardized the 412 audit sampling methodology without substantive changes from FY 2017–2018.

The current over-read results show improved agreement between HSAG and **DHMC** reviewers compared to the previous year. As such, similar recommendations from the FY 2017–2018 study are still relevant. Based on HSAG's document review, **DHMC**'s service coding accuracy results, and the over-read results described in this report, HSAG offers the following recommendations to improve the quality of **DHMC**'s encounter data.

- As the Department's sampling methodology was limited to SQL code, HSAG recommends that the Department thoroughly document the sampling methodology.
  - For example, HSAG recommends that the Department's Rates Section update the sampling documentation to define the terms used in the documentation, include an excerpt of sampling

code, and describe any limitations on the sample frame (e.g., how to limit the universe of encounters or the code values for the different claim types).

–   As a final step in the sampling process, HSAG recommends that the Department's Rates Section perform validity checks on the 412 sample lists to verify that the sample is representative of the encounter data from which it was selected (e.g., compare distribution of the submission dates and/or providers among the sampled encounters and the sample frame).

•   **DHMC**'s Service Coding Accuracy Report provided detailed information on medical record procurement and the coding standards considered by its reviewers. However, the report offered only a limited description of **DHMC**'s auditor training and supporting materials. HSAG recommends that **DHMC** thoroughly document its audit training materials and procedures, including examples of written training materials and/or decision documents.

•   **DHMC**'s service coding accuracy results showed greater than 15.0 percent of cases with diagnosis code and/or procedure code data values not supported by medical record documentation, as well as variation in disagreement rates between service categories. To ensure that **DHMC** has implemented quality improvement actions to address these encounter data deficiencies, HSAG recommends that the Department's contract administrator for **DHMC**:

–   Request copies of **DHMC**'s provider training and/or corrective action documentation.

–   Request copies of **DHMC**'s policies and procedures for monitoring providers' data submissions.

–   Collaborate with the Department's Rates Section to review **DHMC**'s encounter data quality documents and verify that **DHMC** is monitoring encounter data quality and ensuring that providers are trained to submit encounters that accurately reflect the medical record documentation.

This table was copied from the *FY 2018–2019 Annual MCO Encounter Data Quality Review Guidelines Appendix I, Denver Health Flat File Encounter Data Specification*. Please note that column headings have been aligned with the Department's encounter data layout.

	Data Element (Field)	Status*	Length	Valid Value
1	Year_Month	C	X(6)	Encounter data
2	Claim_Type	R	X(1)	Encounter data
3	Member_ID	R	X(9)	Encounter data
4	Subscriber_ID	R	X(7)	Encounter data
5	Rate_Code	C	X(6)	Encounter data
6	Eligibility_Sequence	C	X(9)	Encounter data
7	Member_DOB	R	X(8)	Encounter data
8	Member_Age	C	9(3)	Encounter data
9	Client Last Name	R	X(20)	Encounter data
10	Client First Name	R	X(20)	Encounter data
11	Client Middle Initial	C	X(1)	Encounter data
12	Claim_Number	R	X(20)	Encounter data
13	Line_Number	R	9(3)	Encounter data
14	Rev_Code	R	X(5)	Encounter data
15	Rev_Description	R	X(35)	Encounter data
16	Proc_Code	R	X(8)	Encounter data
17	Proc_Code_Modifier_1	R	X(2)	Encounter data
18	Proc_Code_Modifier_2	C	X(2)	Encounter data
19	Proc_Code_Modifier_3	C	X(2)	Encounter data
20	Proc_Code_Modifier_4	C	X(2)	Encounter data
21	Proc_Code_Modifier_5	C	X(2)	Encounter data
22	Proc_Code_Desc	R	X(35)	Encounter data
23	HCPCS_Proc_Code	R	X(8)	Encounter data
24	HCPCS_Desc	R	X(35)	Encounter data
25	ICD_Version	R	X(2)	Encounter data
26	Diag_Code_1	R	X(6)	Encounter data
27	Diag_Code_2	R	X(6)	Encounter data
28	Diag_Code_3	R	X(6)	Encounter data
29	Diag_Code_4	R	X(6)	Encounter data
30	Diag_Code_5	C	X(6)	Encounter data
31	Diag_Code_6	C	X(6)	Encounter data
32	Diag_Code_7	C	X(6)	Encounter data
33	Diag_Code_8	C	X(6)	Encounter data
34	Diag_Code_9	C	X(6)	Encounter data

	Data Element (Field)	Status*	Length	Valid Value
35	Diag_Code_Desc_1	R	X(25)	Encounter data
36	Diag_Code_Desc_2	R	X(25)	Encounter data
37	Diag_Code_Desc_3	R	X(25)	Encounter data
38	Diag_Code_Desc_4	R	X(25)	Encounter data
39	Diag_Code_Desc_5	C	X(25)	Encounter data
40	Diag_Code_Desc_6	C	X(25)	Encounter data
41	Diag_Code_Desc_7	C	X(25)	Encounter data
42	Diag_Code_Desc_8	C	X(25)	Encounter data
43	Diag_Code_Desc_9	C	X(25)	Encounter data
44	SurgicalProcedure1	R	X(6)	Encounter data
45	Surgical_Proc_Code1_Desc	R	X(30)	Encounter data
46	SurgicalProcedure2	R	X(6)	Encounter data
47	Surgical_Proc_Code2_Desc	R	X(30)	Encounter data
48	SurgicalProcedure3	R	X(6)	Encounter data
49	Surgical_Proc_Code3_Desc	R	X(30)	Encounter data
50	SurgicalProcedure4	R	X(6)	Encounter data
51	Surgical_Proc_Code4_Desc	R	X(30)	Encounter data
52	SurgicalProcedure5	R	X(6)	Encounter data
53	Surgical_Proc_Code5_Desc	R	X(30)	Encounter data
54	SurgicalProcedure6	R	X(6)	Encounter data
55	Surgical_Proc_Code6_Desc	R	X(30)	Encounter data
56	DRG	R	X(4)	Encounter data
57	Service_Date	R	X(8)	Encounter data
58	Thru_Date	R	X(8)	Encounter data
59	Discharge_Status	R	X(3)	Encounter data
60	Date_Received	R	X(8)	Encounter data
61	Post_Date	R	X(8)	Encounter data
62	Check_Date	R	X(8)	Encounter data
63	Quantity	R	9(15)	Encounter data
64	Place_of_Service	R	X(5)	Encounter data
65	Place_of_Service_Desc	R	X(25)	Encounter data
66	Billed_Amount	R	9(18,2)	Encounter data
67	Allowed_Amount	R	9(18,2)	Encounter data
68	Not_Covered_Amount	R	9(18,2)	Encounter data
69	Copay_Amount	R	9(18,2)	Encounter data
70	Deductible_Amount	R	9(18,2)	Encounter data
71	Other_Carrier_Amount	R	9(18,2)	Encounter data
72	Withhold_Amount	R	9(18,2)	Encounter data
73	Net_Amount	R	9(18,2)	Encounter data
74	Paid_Net	R	9(18,2)	Encounter data
75	Claim_Status	R	X(1)	Encounter data

	Data Element (Field)	Status*	Length	Valid Value
76	Claimline_Status	R	X(1)	Encounter data
77	Vendor_Type	R	X(6)	Encounter data
78	Provider_ID	R	X(15)	Encounter data
79	Provider_Type	R	X(10)	Encounter data
80	Provider_Spec	R	X(10)	Encounter data
81	Provider_Name	R	X(30)	Encounter data
82	Provider_MedicaidID	R	X(15)	Encounter data
83	Provider_NPI	R	X(15)	Encounter data
84	Provider_Tax_ID	R	X(10)	Encounter data
85	Provider_Zip_Code	R	X(5)	Encounter data
86	AttProvider_ID	R	X(15)	Encounter data
87	AttProvider_Type	R	X(10)	Encounter data
88	AttProvider_Spec	R	X(10)	Encounter data
89	AttProvider_Name	R	X(30)	Encounter data
90	AttProvider_MedicaidID	R	X(15)	Encounter data
91	AttProvider_NPI	R	X(15)	Encounter data
92	AttProvider_Tax_ID	R	X(10)	Encounter data
93	Vendor_Tax_ID	R	X(15)	Encounter data
94	BillTypeCode	R	X(3)	Encounter data
95	Denial_Reason_Code	C	X(15)	Encounter data
96	Denial_Reason_Code_Desc	C	X(25)	Encounter data

*R = Required, C = Conditional

This table was copied from the *FY 2018–2019 Annual MCO Encounter Data Quality Review Guidelines Appendix III, Response Data Layout for MCOs' Encounter Data Quality Audit.* Please note that HSAG made minimal edits to the table for readability.

	Data Element (Field)	Data Description	Format	Length
0	Record_No	Sequential number for each of 412 records	X	Integer
1	Encounter_Procedure_Code	0 = No or insufficient documentation, incorrect code utilized for procedure performed 1 = Correct code 9 = If data element does not pertain to encounter service type *Required for Professional, Outpatient, and FQHC Encounters* *See further details in Appendix III following this table**	X	1
2	Encounter_Procedure_Code_Modifier	0 = No or insufficient documentation, incorrect code modifier utilized for procedure performed 1 = Correct code modifier 9 = If data element does not pertain to encounter service type *Required for Professional, Outpatient, and FQHC Encounters*	X	1
3	Encounter_Surgical_Procedure_Code	0 = No or insufficient documentation, incorrect code utilized for surgical procedure performed 1 = Correct code 9 = If data element does not pertain to encounter service type *Required for Inpatient Encounters*	X	1
4	Encounter_Primary_Diagnosis_Code	0 = No or insufficient documentation, assignment of incorrect primary diagnosis code, diagnosis not treated during encounter 1 = Correct code *Required for Inpatient, Professional, Outpatient, and FQHC Encounters*	X	1
5	Encounter_Units	0 = No or insufficient documentation, incorrect units 1 = Correct units 9 = Data element does not pertain to encounter service type *Required for Professional, Outpatient, and FQHC Encounters*	X	1
6	Encounter_Service_Date	0 = No or insufficient documentation, incorrect service start date 1 = Correct service start date 9 = If data element does not pertain to encounter service type *Required for Inpatient, Professional, Outpatient, and FQHC Encounters*	X	1

	Data Element (Field)	Data Description	Format	Length
7	Encounter_Thru_Date	0 = No or insufficient documentation, incorrect service end date 1 = Correct service end date 9 = If data element does not pertain to encounter service type *Required for Inpatient Encounters*	X	1
8	Encounter_Discharge_Status	0 = No or insufficient documentation, incorrect discharge status 1 = Correct discharge status 9 = If data element does not pertain to encounter service type *Required for Inpatient Encounters*	X	1
9	Doc_Procedure_Code	Enter correct procedure code if present in the supporting documentation. Enter 'No Doc' if no or insufficient documentation of correct procedure code. Enter 'NA' if data element does not pertain to encounter service type. *Required for Professional, Outpatient, and FQHC Encounters*	X	7
10	Doc_Procedure_Code_Modifier	Enter correct procedure code modifier if present in the supporting documentation. Enter 'No Doc' if no or insufficient documentation of correct procedure code modifier. Enter 'NA' if data element does not pertain to encounter service type. *Required for Professional, Outpatient, and FQHC Encounters*	X	7
11	Doc_Surgical_Code	Enter correct surgical procedure code if present in supporting documentation. Enter 'No Doc' if no or insufficient documentation of correct surgical procedure code. Enter 'NA' if data element does not pertain to encounter service type. *Required for Inpatient Encounters*	X	7
12	Doc_Diag	Enter correct primary diagnosis code if present in the supporting documentation. Enter 'No Doc' if no or insufficient documentation of correct diagnosis code. *Required for Inpatient, Professional, Outpatient, and FQHC Encounters*	X	7
13	Doc_Units	Enter correct units if present in the supporting documentation. Enter 'No Doc' if no or insufficient documentation of correct units. *Required for Professional, Outpatient, and FQHC Encounters*	X	Integer

	Data Element (Field)	Data Description	Format	Length
14	Doc_Service_Date	Enter correct start date if present in supporting documentation. Enter 'No Doc' if no or insufficient documentation of correct start date. *Required for Inpatient, Professional, Outpatient, and FQHC Encounters*	X	8
15	Doc_Thru_Date	Enter correct end date if present in supporting documentation. Enter 'No Doc' if no or insufficient documentation of correct end date. Enter 'NA' if data element does not pertain to encounter service type. *Required for Inpatient Encounters*	X	8
16	Doc_Encounter_Discharge_Status	Enter correct discharge status if present in supporting documentation. Enter 'No Doc' if no or insufficient documentation of correct discharge status. Enter 'NA' if data element does not pertain to encounter service type. *Required for Inpatient Encounters*	X	8
17	E&M Guidelines Version	1 = 1995 version of Evaluation and Management Services Documentation Guidelines 2 = 1997 version of Evaluation and Management Services Documentation Guidelines 9 = Does Not Apply	X	1
18	Comments (optional)	Any comments, for example 'no documentation received from provider' or 'refer to leveling tool'	X	Flexible

* To assess encounter data quality, data elements are contingent on corresponding medical record documentation. Medical records correspond to the encounter data when the member information (i.e., name, date of birth, and/or Medicaid ID), provider information, and date of service are in agreement. If the medical records match the member and provider information but the date of service is incorrect, the Encounter_Service_Date will be scored as "0" and the remaining data elements will be scored as "0". The Comments field should be used to indicate that subsequent data elements were in disagreement due to the invalid date of service.

For Inpatient records or other records with services occurring over a date range, the encounter date of service is acceptable if it falls within the date range.

In the event medical record documentation is unavailable to support the encounter, all elements will be scored as "0" or "No Doc."

In the event that medical record documentation could support more than one procedure code, auditors should note agreement with the encounter procedure code, if applicable, and use the Comments field to indicate other applicable procedure codes identified in the medical record.

To ensure consistency between each MCO's audit and the independent auditor's over-read, MCOs should provide the independent auditor with all medical records and supporting documentation used by the MCO during its 412 audit. Examples of such documentation include internal leveling tools, crosswalks, or any other such supporting materials used by the MCO in the completion of the 412 audit.

Appendix C. DHMC Service Coding Accuracy Results

Data from these tables have been copied from the Service Coding Accuracy Report submitted to the Department and HSAG by **DHMC**. Data tables were created following the specifications listed in Section 6 of the *FY 2018–2019 Annual MCO Encounter Data Quality Review Guidelines*.

Table C-1—Inpatient Encounters Service Coding Accuracy Summary

Requirement	MCO Name	Numerator	Excluded/ Does Not Apply	Total Denominator	Modified Denominator	Overall Percent	Modified Percent
Date of Service (Service_Date)	Denver Health Medicaid Choice	97	0	103	103	94.17%	94.17%
Through Date (Thru_Date)	Denver Health Medicaid Choice	98	0	103	103	95.15%	95.15%
Diagnosis Code (Diag_Code_1)	Denver Health Medicaid Choice	84	0	103	103	81.55%	81.55%
Surgical Procedure Code (SurgicalProcedure1)	Denver Health Medicaid Choice	98	0	103	103	95.15%	95.15%
Discharge Status (Discharge_Status)	Denver Health Medicaid Choice	97	0	103	103	94.17%	94.17%

Table C-2—Outpatient Encounters Service Coding Accuracy Summary

Requirement	MCO Name	Numerator	Excluded/ Does Not Apply	Total Denominator	Modified Denominator	Overall Percent	Modified Percent
Date of Service (Service_Date)	Denver Health Medicaid Choice	95	0	103	103	92.23%	92.23%
Diagnosis Code (Diag_Code_1)	Denver Health Medicaid Choice	76	0	103	103	73.79%	73.79%
Procedure Code (Proc_code)	Denver Health Medicaid Choice	85	0	103	103	82.52%	82.52%
Procedure Code Modifier (Proc_Code_Modifier)	Denver Health Medicaid Choice	91	1	103	102	88.35%	89.22%
Units (Quantity)	Denver Health Medicaid Choice	93	0	103	103	90.29%	90.29%

Table C-3—Professional Encounters Service Coding Accuracy Summary

Requirement	MCO Name	Numerator	Excluded/ Does Not Apply	Total Denominator	Modified Denominator	Overall Percent	Modified Percent
Date of Service (Service_Date)	Denver Health Medicaid Choice	93	0	103	103	90.29%	90.29%
Diagnosis Code (Diag_Code_1)	Denver Health Medicaid Choice	70	0	103	103	67.96%	67.96%
Procedure Code (Proc_Code)	Denver Health Medicaid Choice	72	0	103	103	69.90%	69.90%
Procedure Code Modifier (Proc_Code_Modifier)	Denver Health Medicaid Choice	92	0	103	103	89.32%	89.32%
Units (Quantity)	Denver Health Medicaid Choice	90	0	103	103	87.38%	87.38%

Table C-4—FQHC Encounters Service Coding Accuracy Summary

Requirement	MCO Name	Numerator	Excluded/ Does Not Apply	Total Denominator	Modified Denominator	Overall Percent	Modified Percent
Date of Service (Service_Date)	Denver Health Medicaid Choice	103	0	103	103	100.00%	100.00%
Diagnosis Code (Diag_Code_1)	Denver Health Medicaid Choice	85	0	103	103	82.52%	82.52%
Procedure Code (Proc_Code)	Denver Health Medicaid Choice	83	0	103	103	80.58%	80.58%
Procedure Code Modifier (Proc_Code_Modifier)	Denver Health Medicaid Choice	97	0	103	103	94.17%	94.17%
Units (Quantity)	Denver Health Medicaid Choice	98	0	103	103	95.15%	95.15%