COLORADO

Department of Health Care Policy & Financing

FY 2019–2020 412 Encounter Data Validation Over-Read Report for Denver Health Medical Plan

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This report was produced by Health Services Advisory Group, Inc., for the Colorado Department of Health Care Policy and Financing.

HSAG HEALTH SERVICES ADVISORY GROUP

Contents

FY 2019–2020 412 Encounter Data Validation Over-Read Report

Background

In fiscal year (FY) 2019–2020, the Colorado Department of Health Care Policy and Financing (the Department) contracted Health Services Advisory Group, Inc. (HSAG) to conduct encounter data validation (EDV) among the Department's contracted limited managed care capitated initiative plans (Medicaid managed care organizations [MCOs]) as an optional external quality review (EQR) activity under the Centers for Medicare & Medicaid Services (CMS) regulations released in October 2019.[1]

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

This report addresses findings for the **Denver Health Medical Plan** (**DHMP**) 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 independently validated by **DHMP**. These service categories included encounters with services rendered in federally qualified health centers (FQHCs), as well as in inpatient, outpatient, and professional settings. **DHMP** submitted the internal validation results and an Encounter Data Quality Report to HSAG and the Department.

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

The Department contracted HSAG to evaluate each Medicaid MCO's capacity to internally validate encounters through an independent assessment of the Medicaid MCO's Encounter Data Quality Report. Specifically, the Department requested that HSAG complete the following tasks during FY 2019–2020:

1. Conduct a desk review of each Medicaid MCO's validation process, including any process documentation submitted by the Medicaid MCOs.
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.

[1] Department of Health and Human Services, Centers for Medicare & Medicaid Services. *Protocol 5. Validation of Encounter Data Reported by the Medicaid and CHIP Managed Care Plan: An Optional EQR-Related Activity*, October 2019. Available at: https://www.medicaid.gov/medicaid/quality-of-care/downloads/2019-eqr-protocols.pdf. Accessed on: May 26, 2020.

3. Produce a report for each Medicaid MCO, containing findings specific to each service category, including a statement regarding HSAG's assessment of the accuracy of each Medicaid MCO's internal validation results.

Methodology

HSAG's independent EDV consisted primarily of an assessment of **DHMP**'s internal validation 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 selected 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 EDV was to evaluate whether **DHMP**'s internal validation of the sampled encounters against members' medical records was accurate and consistent with standard coding manuals. HSAG received a response file containing **DHMP**'s internal validation results for the 412 cases sampled by the Department. Prior to receiving **DHMP**'s internal validation 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 **DHMP** encounters paid between October 1, 2018, and September 30, 2019, for four physical health service categories.[2,3] The Department submitted the sample lists to **DHMP** and HSAG in January 2020; **DHMP** then conducted its internal validation 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] Service categories were identified using the review_typ field assigned to each encounter by the Department. Review_typ values of "PHY" identified Professional Services, "IP" identified Inpatient Services, "FQ" identified services rendered at an FQHC, and "OP" 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 **DHMP** encounter data flat files is presented for reference in Appendix A, which includes Table I-1 from Appendix I of the *Annual MCO Encounter Data Quality Review Guidelines*.

2. Encounter Data Validation Tool Development

DHMP submitted its response file containing internal validation results for the 412 sampled cases to HSAG in March 2020. 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, outpatient, and professional). A control file containing select fields from the Department's encounter data flat file as well as **DHMP**'s corresponding internal validation values for sampled cases was uploaded into the tool, permitting pre-population of encounter and validation 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 **DHMP** were linked to cases within the tool. The web-based tool allowed the HSAG analyst to extract Microsoft (MS) Excel files containing encounter data, **DHMP** validation 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 **DHMP**'s internal validation findings in April 2020. More specifically, the HSAG reviewers validated **DHMP**'s accuracy in abstracting 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, Tenth Revision, 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 **DHMP**'s validation responses were accurate based on the review of the supporting medical record documentation submitted by **DHMP**. All over-read results were entered into the HSAG data collection tool.

HSAG trained four certified coders to conduct the over-read. During the over-read of the ambulatory (i.e., FQHC, outpatient, or professional) encounters, 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 data collection 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 encounters, 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 data collection 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 **DHMP** agreed or disagreed with the accuracy of the codes submitted by the provider. If the HSAG coder agreed with **DHMP**'s response, an agreement response was recorded in the tool. If the HSAG coder disagreed with **DHMP**'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 **DHMP**'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 re-training of the coder(s).

4. Analysis Process

Following completion of the over-read, the HSAG analyst exported results from the data collection tool for each service category. Since 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 **DHMP**'s internal validation response. Results were displayed by service category for data elements that were abstracted by **DHMP** and overread by HSAG. Over-read analysis results were independently verified by a second HSAG analyst.

Results

Desk Review

The Department's Sampling Methodology

The Department provided HSAG with a brief description of the process used to generate a random sample of **DHMP**'s encounters. The Department's documentation listed the criteria by which encounters were assigned to service categories and noted that the 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 documenting the steps taken to verify that the correct sample frame was chosen, or to validate that the final sample was representative of the sampling frame. Based on the information provided, HSAG was unable to determine if the Department ensured that the sample was representative of the underlying data.

HSAG reviewed the sample list provided by the Department, the sampling process description, and the portion of sampling code that the Department reported using to generate the sample. The Department

created the sample by identifying a category of service and selecting 10 percent of the claim lines within that category. Next, a random value was assigned to each line and the claim lines were sorted based on the random value. The claim lines were then deduplicated and the top 103 remaining lines were selected to create the sample. These steps were repeated for each of the four service categories.

Due to the Department's sampling methodology, four of the 103 outpatient cases submitted to **DHMP** were incorrectly categorized and should have been included in the sample frame for the inpatient cases. The Department instructed **DHMP** to abstract the four incorrectly categorized outpatient cases as inpatient cases when tabulating the MCO response data file. In addition, HSAG selected two of the four cases for the 20-case outpatient over-read sample. As a result, HSAG's over-read results included 22 inpatient over-read cases, 18 outpatient over-read cases, and 20 over-read cases each for the professional and FQHC categories.

DHMP's Internal Validation Methodology

To provide context for **DHMP**'s service coding accuracy results, the Department requested **DHMP**'s internal validation methodology documentation as a component of the Encounter Data Quality Report. HSAG's review of **DHMP**'s internal validation methodology documentation verified the presence of:

- A list of the coding guidelines referenced for **DHMP**'s internal validation process.
- A description of the record procurement and validation process, including the use of a company subsidiary (i.e., Denver Health Enterprise Compliance Services within Denver Health and Hospital Authority) for various tasks.
- A brief description of the validation tool, a shared MS Excel spreadsheet, and a brief description of the instructions provided to the reviewers.
- The credentials, training, and experience of all reviewers.
- The IRR testing process for validation staff members.

Over-Read of Sample Cases by Service Category

The EDV response file submitted by **DHMP** contained all required fields and aligned with the EDV response file layout required by the Department and outlined in the guidelines. The EDV response data layout is presented in Appendix II of the *Annual MCO Encounter Data Quality Review Guidelines*, presented in Appendix B of this report. Additionally, **DHMP** procured medical records for all sampled cases.

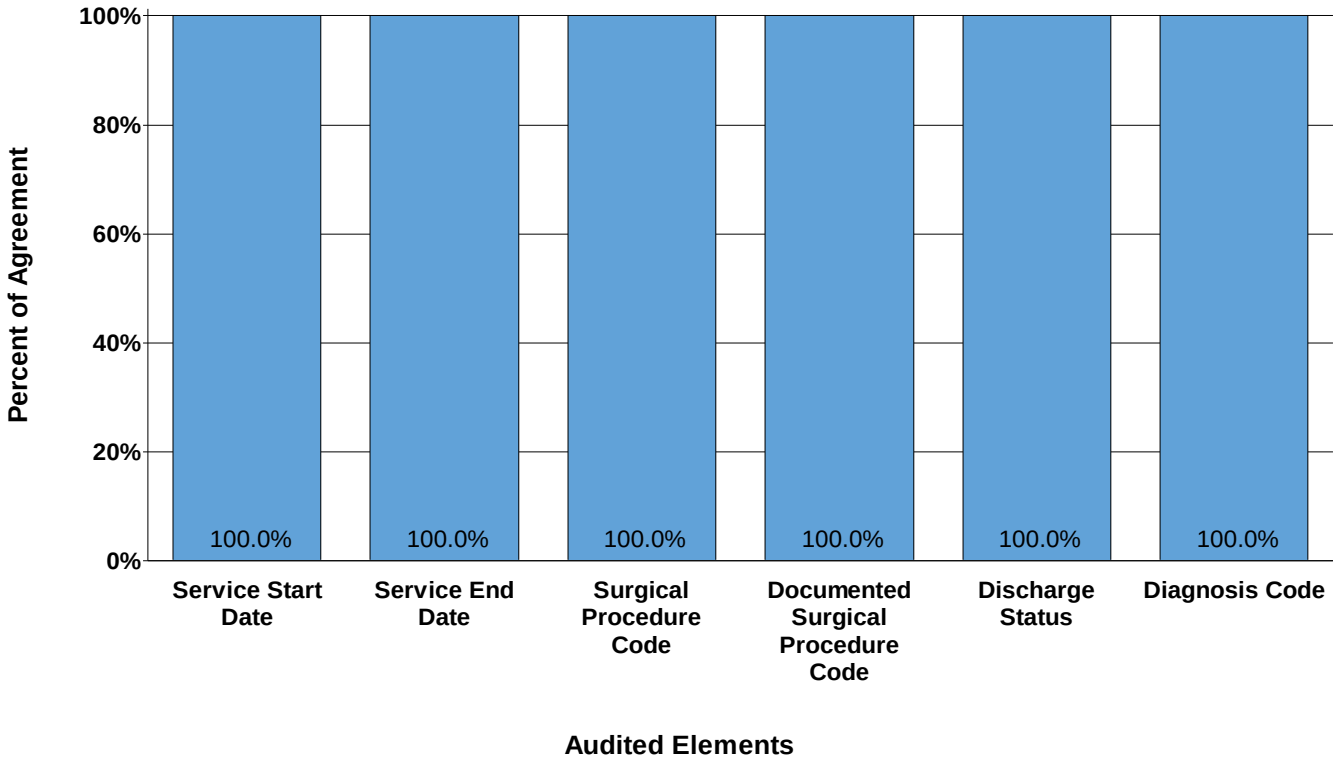
The remainder of this section details HSAG's over-read findings by service category. For reference, Appendix C presents, by service category, **DHMP**'s internal EDV results found in the Service Coding Accuracy section of the Encounter Data Quality Report.

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 with which HSAG's coder disagreed with **DHMP**'s abstraction determination. This MS Excel workbook, or "Case-Level Disagreement List," is used as a supplemental reference for the report.

Inpatient Cases

Figure 1 presents the aggregate results from HSAG's over-read of the inpatient cases. Due to the misclassification of cases mentioned above, the over-read sample contained 22 inpatient cases. All six individual data elements have a percent of agreement of 100.0 percent, where 100.0 percent represents complete agreement between **DHMP**'s internal abstraction 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 DHMP's Internal EDV Findings, by Data Element Inpatient Services

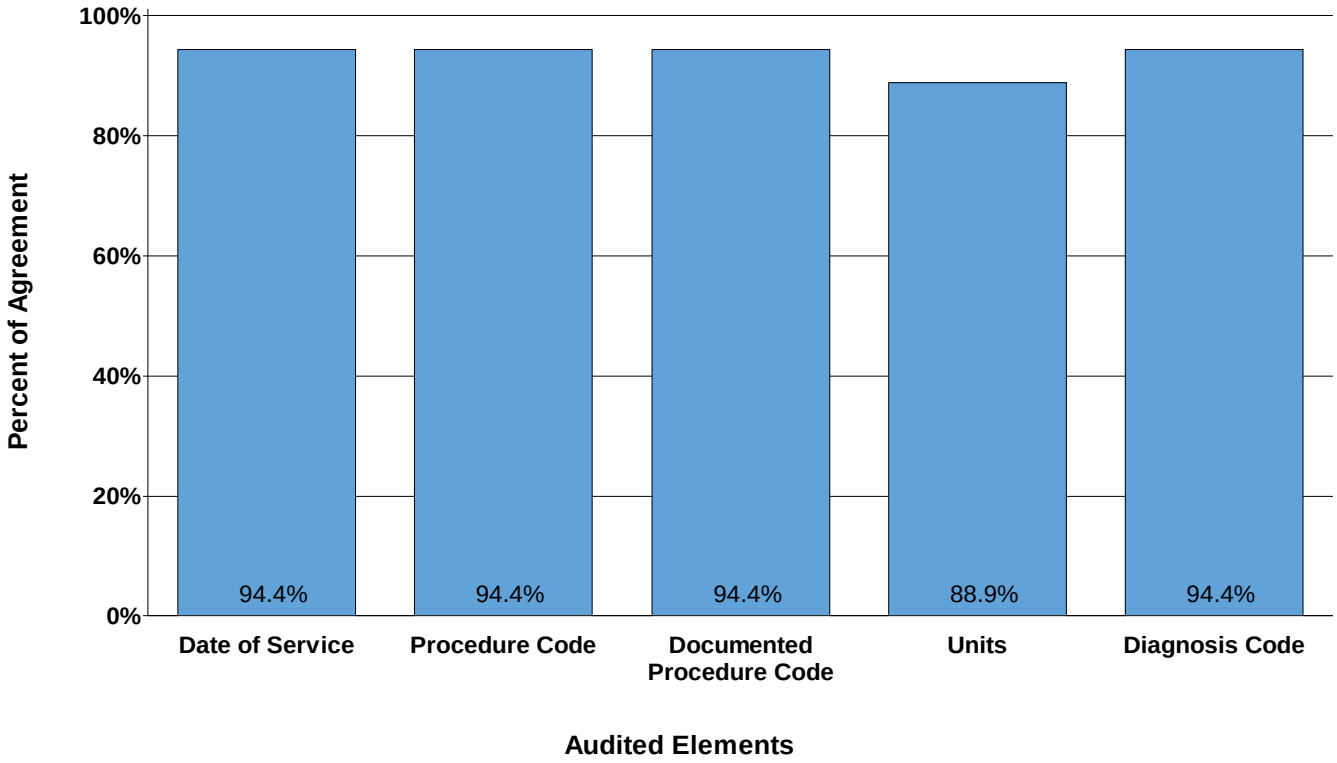


Complete agreement for a sampled inpatient encounter occurred when HSAG's over-read results indicated agreement with **DHMP**'s validation response for each of the six assessed data elements. Of the 22 sampled inpatient encounters, over-read results demonstrated complete agreement for 22 cases, producing a 100.0 percent aggregate agreement rate.

Outpatient Cases

Figure 2 presents the aggregate results from HSAG's over-read of the outpatient cases. Due to the misclassification of cases mentioned above, the over-read sample contained 18 outpatient cases. Agreement values range from 88.9 percent to 94.4 percent for individual data elements, where 100.0 percent represents complete agreement between **DHMP**'s internal validation 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 DHMP's Internal EDV Findings, by Data Element Outpatient Services



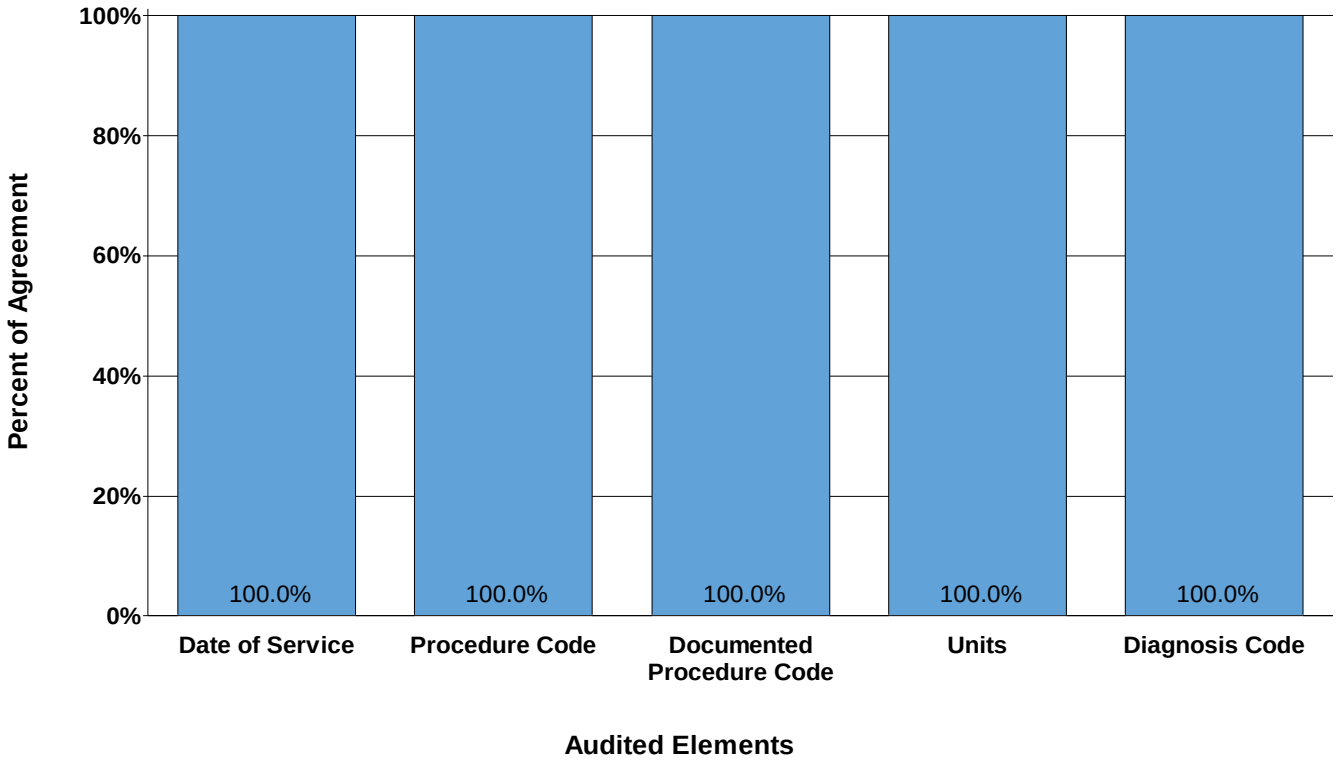
Complete agreement occurred when HSAG's over-read results indicated agreement with **DHMP**'s validation response for each of the five individual data elements assessed for a sampled outpatient encounter. Of the 18 sampled outpatient encounters, over-read results demonstrated complete agreement for 16 cases, producing an 88.9 percent aggregate agreement rate. HSAG's over-read results did not achieve 100 percent agreement for any of the five validated data elements. The highest agreement rates (each 94.4 percent) were observed for the *Date of Service*, *Procedure* Code, *Documented Procedure Code*, and *Diagnosis Code* data elements. The lowest agreement rate (88.9 percent) was observed for the *Units* data element.

HSAG's reviewers determined that medical record documentation did not align with the encounter data or **DHMP**'s documented information for one of the six data elements for which **DHMP**'s validation results were inconsistent with HSAG's over-read results. For the remaining five data elements, **DHMP**'s validation staff members reported no documentation or insufficient documentation to record a validation response value; HSAG's reviewers disagreed with this assessment. The six data elements in disagreement aligned with two sampled over-read cases.

Professional Cases

Figure 3 presents the aggregate results from HSAG's over-read of the 20 professional cases. Agreement values are 100.0 percent for individual data elements, where 100.0 percent represents complete agreement between **DHMP**'s internal validation 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 DHMP's Internal EDV Findings, by Data Element Professional Services

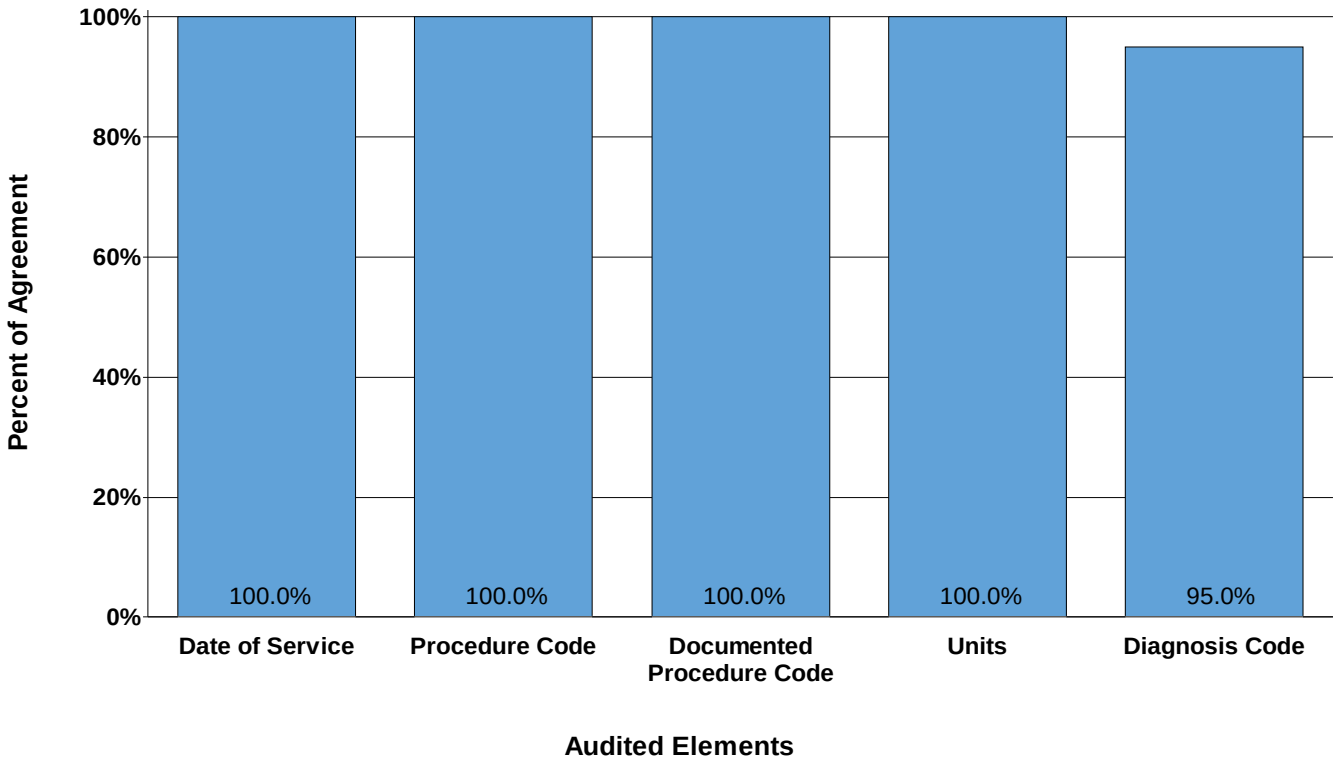


Complete agreement for a sampled professional encounter occurred when HSAG's over-read results indicated agreement with **DHMP**'s validation response for each of the five assessed data elements. Of the 20 sampled professional encounters, over-read results demonstrated complete agreement for 20 cases, producing a 100.0 percent aggregate agreement rate.

FQHC Cases

Figure 4 presents the aggregate results from HSAG's over-read of the 20 FQHC cases. Agreement values range from 95.0 percent to 100.0 percent for individual data elements, where 100.0 percent represents complete agreement between **DHMP**'s internal validation 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 DHMP's Internal EDV Findings, by Data Element FQHC Services



Complete agreement occurred when HSAG's over-read results indicated agreement with **DHMP**'s validation 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 19 cases, producing a 95.0 percent aggregate agreement rate. HSAG's over-read results agreed with **DHMP**'s 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 did not align with the encounter data or **DHMP**'s documented information for the single data element for which **DHMP**'s validation results

were inconsistent with HSAG's over-read results. The one data element in disagreement aligned with one sampled over-read case.

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 **DHMP**'s internal validation results for 77 of the 80 sampled encounters, resulting in a 96.3 percent agreement rate. The overall agreement rate is greater than the 85.0 percent overall agreement seen in the FY 2018–2019 report. Table 1 shows case-level and element-level accuracy rates by service category for FY 2019–2020.

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	22	100.0%	132	100.0%
Outpatient	18	88.9%	90	93.3%
Professional	20	100.0%	100	100.0%
FQHC	20	95.0%	100	99.0%
Total	**80**	**96.3%**	**422**	**98.3%**

HSAG's coders determined that misalignment between medical record documentation and encounter data contributed to two of the three cases in which HSAG's coders disagreed with **DHMP**'s validation results. In the third case, HSAG's coders determined that the medical record documentation supported the encounter data while the **DHMP** reviewer stated there was insufficient medical record documentation. **DHMP** provided medical record documentation for all sampled over-read cases, and HSAG's over-read results were not impacted by **DHMP**'s medical record procurement for this study.

Results from HSAG's FY 2019–2020 MCO over-read suggest a high level of confidence that **DHMP**'s independent validation findings accurately reflect its encounter data quality, as tabulated by **DHMP**, in its service coding accuracy results. Overall, results from HSAG's FY 2019–2020 EDV over-read

showed that HSAG's coders agreed with **DHMP**'s reviewers for 98.3 percent of the individual validated data elements. Agreement rates among the service categories ranged from 93.3 percent for outpatient cases to 100.0 percent for inpatient and professional cases. As reported in **DHMP**'s Service Coding Accuracy Report, **DHMP**'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 **DHMP** validates physical health encounters in support of the Department's overall encounter data quality efforts. Therefore, HSAG recommends that findings associated with this independent EDV 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; **DHMP** will submit encounter data directly into the MMIS. For validation purposes, **DHMP** 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 **DHMP** to ensure encounter data timeliness and accuracy as well as comparability between encounter data provided by **DHMP** under the new and legacy systems.

As FY 2019–2020 is the fifth year of the independent Medicaid MCO EDV, HSAG requested the Department's input regarding quality improvement actions resulting from recommendations in the FY 2018–2019 report. The Department offered no specific feedback regarding actions or encounter data quality initiatives based on the prior year's recommendations.

The current over-read results show improved agreement between HSAG and **DHMP** reviewers compared to the previous year. However, selected recommendations from the FY 2018–2019 study are still relevant. Based on HSAG's document review, **DHMP**'s service coding accuracy results, and the over-read results described in this report, HSAG offers the following recommendations to improve the quality of **DHMP**'s encounter data.

- The Department's sampling methodology was limited to SQL code and a bulleted summary of the SQL code steps; therefore, HSAG recommends that the Department thoroughly document the sampling methodology to ensure that the sample is representative of all encounters eligible for study inclusion.
  - For example, HSAG recommends that the Department's Rates Section update the MS Word 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 each sample is representative of the

encounter data from which it was selected (e.g., compare distribution of the submission dates and/or providers between the sampled encounters and the sample frame) and to verify the accuracy of the data fields and values used to identify each service category.

- The Department's instructions in the guidelines regarding the Data Submission metrics within the Encounter Data Quality Report could result in the Medicaid MCOs submitting Data Submission metric results using differing calculation criteria. HSAG recommends that the Department more clearly define the numerators and the denominators for the "valid value checking," "duplicates checking," and "provider identification checking" metrics within the guidelines.
- **DHMP**'s Service Coding Accuracy section of the Encounter Data Quality 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 **DHMP**'s reviewer training and supporting materials. HSAG recommends that **DHMP** thoroughly document its EDV training materials and procedures, including examples of written training materials and/or decision documents.
- **DHMP**'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 **DHMP** has implemented quality improvement actions to address these encounter data deficiencies, HSAG recommends that the Department's contract administrator for **DHMP**:
  - Request copies of **DHMP**'s provider training and/or corrective action documentation.
  - Request copies of **DHMP**'s policies and procedures for monitoring providers' data submissions.
  - Collaborate with the Department's Rates Section to review **DHMP**'s encounter data quality documents and verify that **DHMP** is monitoring encounter data quality and ensuring that providers are trained to submit encounters that accurately reflect the medical record documentation.

Appendix A. Physical Health Encounter Data Flat File Specifications

This table was copied from the *Annual MCO Encounter Data Quality Review Guidelines, Appendix I, Table I-1, Flat File Encounter Data Specification*. Please note that HSAG made minimal edits to the flat file specifications table for readability.

Data Element (Field)	Data Field Name	Field Format	Description
0	ROWID	VARCHAR(3)	Sequential Unique Row Identifier, excluded from the MCOs' data submissions. This field was added by the Department during the 412 EDV sampling process and contain a number between 001 and 412.
1	INT_ENC_ID	VARCHAR (25)	MCO Assigned Claim Identifier
2	MCAID_ID	VARCHAR (9)	State Assigned Client Medicaid ID
3	CLNT_FST_NM	VARCHAR (255)	Client First Name
4	CLNT_MID_NM	VARCHAR (255)	Client Middle Name
5	CLNT_LST_NM	VARCHAR (255)	Client Last Name
6	CLNT_DOB	DATE	Client Date of Birth
7	BILL_PROV_ID	VARCHAR (25)	Billing Provider Medicaid ID
8	BILL_PROV_NPI	VARCHAR (25)	Billing Provider NPI
9	BILL_PROV_TIN	VARCHAR (25)	Billing Provider Tax ID Number
10	BILL_PROV_NM	VARCHAR (255)	Billing Provider Name
11	BILL_PROV_ZIP	VARCHAR (10)	Billing Provider Zip Code
12	BILL_PROV_TYP	VARCHAR (255)	Billing Provider Type
13	BILL_PROV_SPCLTY_CD	VARCHAR (25)	Billing Provider Specialty Code
14	BILL_PROV_SPCLTY_DESC	VARCHAR (255)	Billing Provider Specialty Code Description
15	REND_PROV_ID	VARCHAR (25)	Rendering Provider Medicaid ID
16	REND_PROV_NPI	VARCHAR (25)	Rendering Provider NPI
17	REND_PROV_TIN	VARCHAR (25)	Rendering Provider Tax ID Number
18	REND_PROV_NM	VARCHAR (255)	Rendering Provider Name
19	REND_PROV_ZIP	VARCHAR (10)	Rendering Provider Zip Code
20	REND_PROV_TYP	VARCHAR (255)	Rendering Provider Type
21	REND_PROV_SPCLTY_CD	VARCHAR (25)	Rendering Provider Specialty Code
22	REND_PROV_SPCLTY_DESC	VARCHAR (255)	Rendering Provider Specialty Code Description
23	ATND_PROV_ID	VARCHAR (25)	Attending Provider Medicaid ID
24	ATND_PROV_NPI	VARCHAR (25)	Attending Provider NPI
25	ATND_PROV_TIN	VARCHAR (25)	Attending Provider Tax ID Number

Data Element (Field)	Data Field Name	Field Format	Description
26	ATND_PROV_NM	VARCHAR (255)	Attending Provider Name
27	ATND_PROV_ZIP	VARCHAR (10)	Attending Provider Zip Code
28	ATND_PROV_TYP	VARCHAR (50)	Attending Provider Type
29	ATND_PROV_SPCLTY_CD	VARCHAR (25)	Attending Provider Specialty Code
30	ATND_PROV_SPCLTY_DESC	VARCHAR (255)	Attending Provider Specialty Code Description
31	VENDOR_TYP	VARCHAR (25)	Vendor Type Assignment
32	CLM_CTG_CD	VARCHAR (25)	Claim Category Code
33	CLM_NUM	VARCHAR (50)	MCO Internal Claim Number
34	CLM_LNE_NUM	VARCHAR (50)	Claim Line Number
35	SRV_SRT_DT	DATE	Service Start Date
36	SRV_LST_DT	DATE	Service End Date
37	PD_DT	DATE	Paid Date
38	CLM_STS	VARCHAR (25)	Claim Payment Status
39	CLM_LNE_STS	VARCHAR (25)	Claim Line Payment Status
40	REV_CD	VARCHAR (25)	Revenue Code
41	REV_DESC	VARCHAR (255)	Revenue Code Description
42	FQHC_IND	VARCHAR (25)	FQHC/RHC Indicator
43	PROC_CD	VARCHAR (25)	Procedure Code (CPT/HCPCS)
44	PROC_CD_MOD_1	VARCHAR (25)	Procedure Code Modifier 1
45	PROC_CD_MOD_2	VARCHAR (25)	Procedure Code Modifier 2
46	PROC_CD_MOD_3	VARCHAR (25)	Procedure Code Modifier 3
47	PROC_CD_MOD_4	VARCHAR (25)	Procedure Code Modifier 4
48	PROC_CD_MOD_5	VARCHAR (25)	Procedure Code Modifier 5
49	SRG_PROC_CD_1	VARCHAR (25)	Surgical Procedure Code 1
50	SRG_PROC_CD_2	VARCHAR (25)	Surgical Procedure Code 2
51	SRG_PROC_CD_3	VARCHAR (25)	Surgical Procedure Code 3
52	SRG_PROC_CD_4	VARCHAR (25)	Surgical Procedure Code 4
53	SRG_PROC_CD_5	VARCHAR (25)	Surgical Procedure Code 5
54	ICD_VER	VARCHAR (25)	ICD Version
55	DIAG_CD_1	VARCHAR (25)	Diagnosis Code 1
56	DIAG_CD_2	VARCHAR (25)	Diagnosis Code 2
57	DIAG_CD_3	VARCHAR (25)	Diagnosis Code 3
58	DIAG_CD_4	VARCHAR (25)	Diagnosis Code 4
59	DIAG_CD_5	VARCHAR (25)	Diagnosis Code 5
60	DIAG_CD_6	VARCHAR (25)	Diagnosis Code 6

Data Element (Field)	Data Field Name	Field Format	Description
61	DIAG_CD_7	VARCHAR (25)	Diagnosis Code 7
62	DIAG_CD_8	VARCHAR (25)	Diagnosis Code 8
63	DIAG_CD_9	VARCHAR (25)	Diagnosis Code 9
64	NDC	VARCHAR (25)	National Drug Code
65	ADMSN_DT	DATE	Date of Admission
66	DSCHRG_DT	DATE	Date of Discharge
67	LOS	NUMBER (6,2)	Length of Stay (Days)
68	DSCHRG_STS	VARCHAR (25)	Discharge Status
69	DRG_CD	VARCHAR (5)	Diagnosis Risk Grouping Code
70	DRG_SVRTY_CD	VARCHAR (1)	Diagnosis Risk Grouping Severity Code
71	DRG_WT_QTY	VARCHAR (5)	Diagnosis Risk Grouping Weight
72	POS_CD	VARCHAR (25)	Place of Service Code
73	POS_CD_DESC	VARCHAR (255)	Place of Service Code Description
74	QTY	NUMBER (25,2)	Quantity
75	BILLED_AMT	NUMBER (25,2)	Billed Amount
76	ALLOWED_AMT	NUMBER (25,2)	Allowed Amount
77	TPL_AMT	NUMBER (25,2)	TPL Amount
78	COPAY_AMT	NUMBER (25,2)	Copayment Amount
79	WTHLD_AMT	NUMBER (25,2)	Withhold Amount
80	PD_NET_AMT	NUMBER (25,2)	Paid Net Amount
81	BILL_TYP_CD	VARCHAR (25)	Bill Type Code
82	BILL_TYP_CD_DESC	VARCHAR (255)	Bill Type Code Description

Appendix B. Response Data Layout for 412 EDV Results

This appendix is a copy of the *Annual MCO Encounter Data Quality Review Guidelines, Appendix II.* Please note that HSAG made minimal edits to the response data layout table for readability. Guidance for specific encounter data scenarios is shown following the table.

Table B-1—Response Data Layout

Data Element (Field)		Data Description	Format	Length
0	Record_No	Sequential number for each of 412 records *This field will contain a number between 001 and 412 and align with the ROWID provided by the Department in the 412 encounter line sample list.*	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 (i.e., for Inpatient encounters) *Required for Professional, Outpatient, and FQHC Encounters*	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 (i.e., for Inpatient encounters) *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 1 = Correct code *Required for Inpatient, Professional, Outpatient, and FQHC Encounters*	X	1

Data Element (Field)		Data Description	Format	Length
5	Encounter_Units	0 = No or insufficient documentation, incorrect units 1 = Correct units 9 = Data element does not pertain to encounter service type (i.e., for Inpatient encounters) *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
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 Enter 'NR' if data element is not populated in the encounter data line *Required for Professional, Outpatient, and FQHC Encounters*	X	7

Data Element (Field)		Data Description	Format	Length
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 Enter 'NR' if data element is not populated in the encounter data line *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 Enter 'NR' if data element is not populated in the encounter data line *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
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

Data Element (Field)		Data Description	Format	Length
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 (conditionally required)	Reviewer should enter comments supporting the decision made. Comments are required in the following scenarios: If no supporting medical records were provided, enter, "no documentation received from provider" If medical records do not support the date of service and subsequent data elements were scored "0", enter, "No DOS in MR" If a leveling tool (decision support tool) was used, enter, "refer to leveling tool: <tool name>" Comments are strongly encouraged to support the following scenarios: To provide details regarding non-specific primary diagnosis codes To provide details regarding agreement/disagreement with the encounter start date for inpatient stays that began as an observation stay To provide details regarding the documentation supporting an inpatient discharge status determination	X	flexible

Guidance for Specific Encounter Data Scenarios

1. 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 all other applicable data elements were in disagreement due to the invalid date of service.

2. The MCO 412 data quality review considers individual encounter lines that are sampled from encounter data submitted to the Department by the Medicaid MCOs. Reviewers should focus on the information found in the encounter line and determine whether the encounter values are supported by medical record documentation, with the consideration that the medical record documentation may support services captured on separate encounter lines outside the scope of this review.

3. 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.

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

5. In cases where the medical record does not contain patient identifiers on each page of the record, encounter data elements found on medical record pages without identifiers should be scored as "0" or "No Doc."

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

7. If the HCPCS code "T1015" is present in the sampled encounter, reviewers should note agreement if the medical record documentation supports at least one additional procedure code.

8. To ensure consistency between each MCO's review 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 EDV. 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 EDV.

9. In the event that the encounter line reflects a radiology or laboratory result, supporting medical record documentation must contain a signed order listing the test to be performed and the reason for ordering the test. An interpretation and report of the result must also be included to fully support the encounter data value. Score the applicable EDV Response elements with "0" or "No Doc" if signed documentation from a qualified provider is not available to support the radiology or laboratory order.

10. The Table B-1 data elements Procedure Code, Procedure Code Modifier, and Surgical Code each have a response option of "NR" and Table B-2 offers examples for the use of the "NR" EDV response.

Table B-2—412 EDV Data Element "NR" Response Guidance

Encounter Line Data and Medical Record Findings	Example	Anticipated EDV Response Data
The encounter line contains no value and the medical record supports the lack of a data value.	The encounter line does not contain a procedure code modifier and the medical record supports the lack of a procedure code modifier.	Encounter_Procedure_Code_Modifier = "1" Doc_Procedure_Code_Modifier = "NR"
The encounter line contains a value and the medical record supports the data value.	The encounter line contains a modifier code (e.g., "59") and the medical record supports this modifier code.	Encounter_Procedure_Code_Modifier = "1" Doc_Procedure_Code_Modifier = "59"
The encounter line contains no value, but the medical record supports a data value.	The encounter line does not contain a modifier, but the medical records supports a procedure code modifier (e.g., "59").	Encounter_Procedure_Code_Modifier = "0" Doc_Procedure_Code_Modifier = "59"
The encounter line contains a value, but the medical record does not support the data value.	The encounter line contains a modifier value (e.g., "59"), but the medical record indicates that a procedure modifier is not needed.	Encounter_Procedure_Code_Modifier = "0" Doc_Procedure_Code_Modifier = "No Doc"

Appendix C. DHMP Service Coding Accuracy Results

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

Table C-1—Inpatient Encounters Service Coding Accuracy Summary

Requirement	Numerator	Excluded/ Does Not Apply	Total Denominator	Modified Denominator	Overall Percent	Modified Percent
Date of Service (Service_Date)	91	0	103	103	88%	88%
Through Date (Thru_Date)	91	0	103	103	88%	88%
Diagnosis Code (Diag_Code_1)	82	0	103	103	80%	80%
Surgical Procedure Code (SurgicalProcedure1)	88	0	103	103	85%	85%
Discharge Status (Discharge_Status)	92	0	103	103	89%	89%

Due to the Department's sampling approach, the 412 sample list included 107 cases that needed validation as inpatient encounters. HSAG has presented tables submitted by **DHMP** without changes.

Table C-2—Outpatient Encounters Service Coding Accuracy Summary

Requirement	Numerator	Excluded/ Does Not Apply	Total Denominator	Modified Denominator	Overall Percent	Modified Percent
Date of Service (Service_Date)	95	0	103	103	92%	92%
Diagnosis Code (Diag_Code_1)	84	0	103	103	82%	82%
Procedure Code (Proc_Code)	73	4	103	99	71%	74%
Procedure Code Modifier (Proc_Code_Modifier)	91	4	103	99	88%	92%
Units (Quantity)	86	4	103	99	84%	87%

Due to the Department's sampling approach, the 412 sample list included 99 cases that needed validation as outpatient encounters. HSAG has presented tables submitted by **DHMP** without changes.

Table C-3—Professional Encounters Service Coding Accuracy Summary

Requirement	Numerator	Excluded/ Does Not Apply	Total Denominator	Modified Denominator	Overall Percent	Modified Percent
Date of Service (Service_Date)	94	0	103	103	91%	91%
Diagnosis Code (Diag_Code_1)	64	1	103	102	62%	63%
Procedure Code (Proc_Code)	81	0	103	103	79%	79%
Procedure Code Modifier (Proc_Code_Modifier)	89	0	103	103	86%	86%
Units (Quantity)	94	0	103	103	91%	91%

Table C-4—FQHC Encounters Service Coding Accuracy Summary

Requirement	Numerator	Excluded/ Does Not Apply	Total Denominator	Modified Denominator	Overall Percent	Modified Percent
Date of Service (Service_Date)	103	0	103	103	100%	100%
Diagnosis Code (Diag_Code_1)	88	0	103	103	85%	85%
Procedure Code (Proc_Code)	85	0	103	103	83%	83%
Procedure Code Modifier (Proc_Code_Modifier)	100	0	103	103	97%	97%
Units (Quantity)	99	0	103	103	96%	96%