COLORADO

Department of Health Care Policy & Financing

# Fiscal Year 2024–2025 Regional Accountable Entity 411 Encounter Data Validation Over-Read Report for RAE 6—Colorado Community Health Alliance

*June 2025*

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

HSAG HEALTH SERVICES ADVISORY GROUP

# Contents

# 1. Executive Summary

## Purpose of the Study

In fiscal year (FY) 2024–2025, the Colorado Department of Health Care Policy & Financing (the Department) required its Regional Accountable Entities (RAEs) and Denver Health Medical Plan (DHMP) to conduct a behavioral health (BH) study on encounters submitted to the Department. The purpose of the study was to assess the RAEs' and DHMP's independent data validation capacity by having the RAEs and DHMP conduct a medical record review. The Department contracted with Health Services Advisory Group, Inc. (HSAG) to review the results of the RAEs' and DHMP's BH studies. HSAG overread a random sample of the cases on which the RAEs and DHMP reported and calculated a validation agreement score for key data elements.

## Overview of Results

Table 1-1 presents HSAG's aggregate over-read results and the self-reported service coding accuracy results by service category from the RAEs and DHMP. The table includes the aggregate service coding accuracy results, the aggregate over-read results, and the percentage of over-read cases with complete agreement between the RAEs' and DHMP's reviewers and HSAG's reviewers.

Results from HSAG's FY 2024–2025 RAE 411 over-read suggest a fairly high level of confidence that the RAEs' and DHMP's independent validation findings accurately reflect their encounter data quality. Overall, HSAG's reviewers agreed with the RAEs' and DHMP's reviewers for all key data elements for 75 of 80 inpatient services encounters (93.8 percent), 54 of 80 psychotherapy services encounters (67.5 percent), and 67 of 80 residential services encounters (83.8 percent). The RAEs' and DHMP's self-reported service coding accuracy results were greater than 90.0 percent for 21 of the 25 data elements across all service types. Based on these findings, the RAEs and DHMP should continue to evaluate and enhance internal processes for ongoing encounter data monitoring and use the Department's annual RAE 411 encounter data validation (EDV) study to evaluate quality improvement.

**Table 1-1—Aggregate Service Coding Accuracy and Over-Read EDV Results for All Service Categories**

| Service Category | Aggregate Service Coding Accuracy | Aggregate Over-Read Results | Percentage of Over-Read Cases With Complete Agreement |
|---|---|---|---|
| Inpatient Services | 88.5% | 98.8% | 93.8% |
| Psychotherapy Services | 88.6% | 95.1% | 67.5% |
| Residential Services | 96.4% | 98.0% | 83.8% |
| **Total** | **91.7%** | **97.0%** | **81.7%** |

# 2. Overview and Methodology

In FY 2024–2025, the Department contracted HSAG to conduct an EDV study for BH encounters submitted to the Department from each of the RAEs and DHMP contracted with the Department during FY 2024–2025 (Table 2-1).

**Table 2-1—Regional Entity Names and Abbreviations**

| Entity/Region | Plan Name | Plan Abbreviation |
|---|---|---|
| RAE 1 | Rocky Mountain Health Plans | RMHP |
| RAE 2 | Northeast Health Partners | NHP |
| RAE 3 | Colorado Access | COA Region 3 |
| RAE 4 | Health Colorado, Inc. | HCI |
| RAE 5 | Colorado Access | COA Region 5 |
| RAE 6 | Colorado Community Health Alliance | CCHA Region 6 |
| RAE 7 | Colorado Community Health Alliance | CCHA Region 7 |
| Denver Health Region | Denver Health Medical Plan | DHMP |

EDV is an optional external quality review (EQR) activity regulated by the Centers for Medicare & Medicaid Services (CMS) *Protocol 5. Validation of Encounter Data Reported by the Medicaid and CHIP Managed Care Plan: An Optional EQR-Related Activity*, February 2023.[1] While HSAG has collaborated with the Department to conduct annual BH EDV studies since calendar year 2011, the FY 2019–2020 study (i.e., RAE 411) was the first BH EDV in which each RAE was required to validate a sample of BH encounter data against the corresponding medical record documentation.[2] DHMP was added to the RAE 411 study during the FY 2021–2022 study.

The Department developed the *Annual RAE BH Encounter Data Quality Review Guidelines* (guidelines) to support the RAEs' and DHMP's BH EDVs, including a specific timeline and file format requirements to guide each RAE and DHMP in preparing their annual Encounter Data Quality Report. To support the BH EDV, the Department selected a random sample of 411 final, paid encounter lines from each RAE and DHMP region's BH encounter flat files, and the RAEs and DHMP were required to conduct medical record review for the sampled cases, evaluating the quality of the BH encounter data submitted to 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*, February 2023. Available at: https://www.medicaid.gov/medicaid/quality-of-care/downloads/2023-eqr-protocols.pdf. Accessed on: June 4, 2025.

[2] Prior to the Department's transition from Behavioral Health Organizations (BHOs) to the RAEs in 2018, the Department required the BHOs to conduct annual BH EDVs in which the BHOs validated samples of encounter data against the corresponding medical record documentation, and HSAG conducted an over-read of the BHOs' medical record review results.

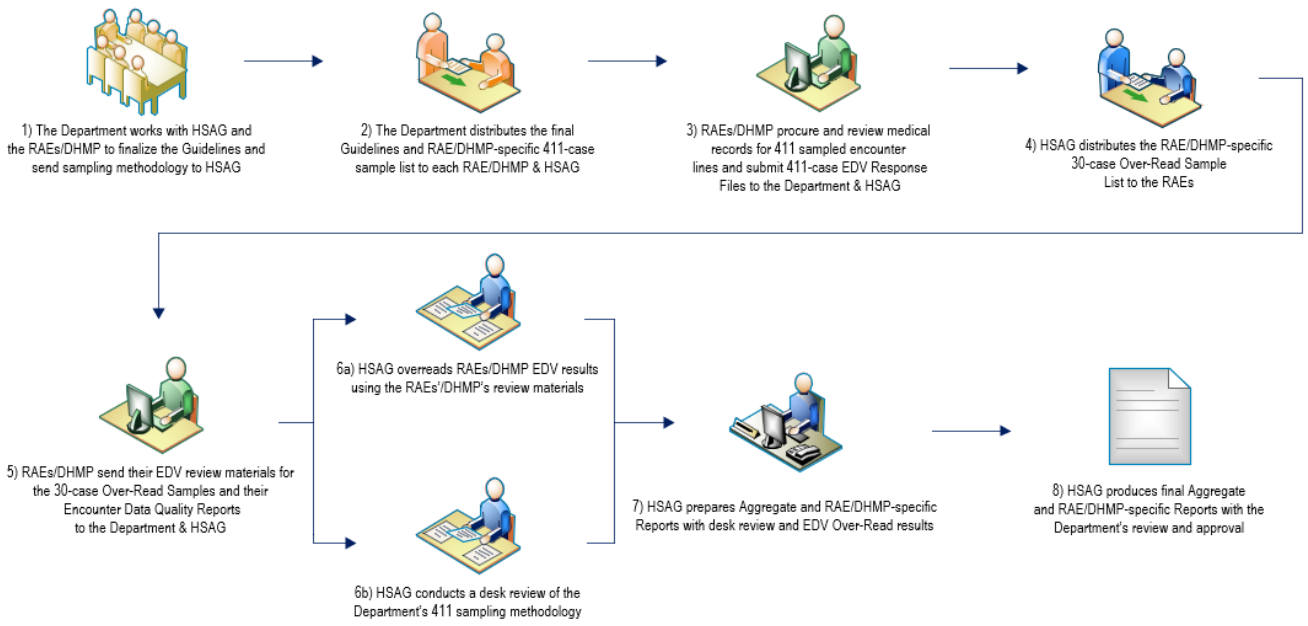
The guidelines also stipulate that the Department's external quality review organization (EQRO), HSAG, will conduct an independent evaluation of the RAEs' and DHMP's medical record review results to verify the quality of each entity's EDV results. Following completion of their medical record reviews, the RAEs and DHMP submit their EDV results as part of an Encounter Data Quality Report to the Department and HSAG. HSAG overreads a random sample of the validated cases and reports on validation agreement with the RAEs' and DHMP's EDV results.

The Department requested that HSAG conduct the following FY 2024–2025 tasks:

1. Conduct a desk review of the Department's sampling protocol and code, as well as a review of each RAE's and DHMP's EDV process, including any submitted EDV documentation.
2. Conduct a review of BH records for sample cases randomly selected from each RAE's and DHMP's 411 EDV sample list.
3. Produce an aggregate report with entity-specific findings, including a statement regarding HSAG's level of confidence in each RAE's and DHMP's EDV results.

Figure 2-1 shows the project flow process that diagrams the high-level steps involved in HSAG's RAE 411 EDV over-read process, beginning in the upper left corner of the image. HSAG's FY 2024–2025 RAE 411 methodology is presented in Appendix A.

**Figure 2-1—FY 2024–2025 RAE 411 Project Flow Process**




Based on the sampling approach outlined in the guidelines, the Department randomly selected, for each RAE and DHMP, 137 institutional encounters for inpatient services, 137 professional encounters for psychotherapy services, and 137 professional encounters for residential services. Each RAE and DHMP procured the medical records corresponding to its sampled cases and compared the medical records to

the encounter data values for each case. Each RAE and DHMP then used the specifications listed in Appendix A. RAE 411 Methodology, the *FY 2023–2024 Annual RAE BH Encounter Data Quality Review Guidelines,* to create service coding accuracy[3] data tables summarizing their 411 EDV results.

Following HSAG's over-read of 30 sampled cases from each 411 EDV sample, HSAG tabulated agreement results that could range from 0.0 percent to 100 percent, where 100 percent represents perfect agreement between the RAEs' or DHMP's EDV results and HSAG's over-read results, and 0.0 percent represents complete disagreement. Based on each entity's results, HSAG calculated an aggregate validation rate for each EDV element and repeated these calculations for each of the service categories.

[3] The term "service coding accuracy" refers to the 411 EDV results tables generated by each RAE and DHMP and reported in the RAE's and DHMP's Encounter Data Quality Report in alignment with the guidelines.

# 3. Encounter Data Validation Over-Read Results

HSAG compiled the FY 2024–2025 EDV findings based on three separate tasks: a desk review of the Department's sampling methodology, a desk review of the RAEs' and DHMP's internal EDV methodology, and an over-read validation of a sample of the RAEs' and DHMP's 411 EDV medical record review cases. The remainder of this section describes the results for these tasks.

## Desk Review of the Department's Sampling Methodology

The Department's Rates Section provided HSAG with a description of its process for generating a random sample of BH encounters for each RAE and DHMP. The Department described the sample selection process and included the complete source code used to sample BH encounters for each service category. The Department also described the service category criteria used to stratify each RAE's and DHMP's sample and how the Rates Section randomly selected BH encounters from encounter data flat files previously processed by the Rates Section. Although the Department's documentation ensured the final sample contained 411 distinct Medicaid IDs, the Department's documentation did not show the steps taken to verify that the sample frame contained only paid, final encounters meeting the established service category criteria or time frame requirements.

## Desk Review of RAEs' and DHMP's Internal EDV Methodology

The Department required the RAEs and DHMP to submit Encounter Data Quality Reports to the Department and HSAG containing information on data submission quality throughout the measurement period and service coding accuracy among the 411 encounters validated during their internal EDV. Using the specifications listed in the FY 2024–2025 Annual RAE BH Encounter Data Quality Review Guidelines, the RAEs and DHMP created service coding accuracy data tables summarizing their 411 EDV results. To provide context for the service coding accuracy results, the Department directed each entity to include its internal EDV methodology documentation in its Encounter Data Quality Report. In reviewing the RAEs' and DHMP's Encounter Data Quality Reports, HSAG identified the following brief findings regarding their EDV processes:

- All entities reported using multiple modes of communication to contact providers and procure medical records.
- HSAG noticed similarities among the RAEs' and DHMP's descriptions of their internal tool development and EDV processes. Most used Microsoft (MS) Excel to log abstracted data values with color coding and conditional logic to help each entity's reviewers abstract data into the intended EDV elements. RAE 2 and RAE 4 used an MS Structured Query Language (SQL) Server and a web-based interface for their EDV tools and described how they tested for tool errors, functionality, and calculation logic. RAE 3, RAE 5, and DHMP adjusted their data collection tools by introducing a comment field for each required field in the audit. RAE 3, RAE 5, and DHMP also discussed their

tools with their third-party contractor (CodingAID) to ensure all parties understood the expectations outlined in the guidelines.

- Each entity described its reviewer training processes, as well as its reviewers' professional experience. Additionally, RAE 2 and RAE 4 supplied a detailed description of the process for selecting and assigning cases for interrater reliability (IRR) analysis, reconciling disagreements between reviewers, and calculating IRR scores. RAE 1 briefly described an over-read process that occurred at weekly meetings, but did not provide a detailed description of its method. RAE 3, RAE 5, and DHMP supplied a description of their IRR processes for inpatient services and residential services, which were conducted by a third-party contractor. Additionally, RAE 3, RAE 5, and DHMP explained how IRR was tracked and improved throughout the audit. RAE 6 and RAE 7 indicated that an internal over-read was conducted concurrently throughout the audit, but did not provide details on whether this was related to the IRR.
- RAE 2, RAE 3, RAE 4, RAE 5, and DHMP reported on opportunities for provider education and creating corrective action plans (CAPs) for low-scoring providers.

Table 3-1 through Table 3-3 present summarized data from each RAE's and DHMP's service coding accuracy tables, as contained in the Encounter Data Quality Reports submitted to the Department and HSAG by each RAE and DHMP. Differences between rates shown in these tables and those presented in the Encounter Data Quality Reports result from HSAG recalculating all rates to display one decimal place for consistency across entities.

**Table 3-1—Service Coding Accuracy Results for Inpatient Services for All Service Categories**

| Data Element | RAE 1 | RAE 2 | RAE 3 | RAE 4 | RAE 5 | RAE 6 | RAE 7 | DHMP | Aggregate |
|---|---|---|---|---|---|---|---|---|---|
| Primary Diagnosis Code | 90.5% | 95.6% | 89.1% | 97.8% | 90.5% | 84.7% | 97.1% | 90.5% | 92.0% |
| Revenue Code | 99.3% | 100.0% | 93.4% | 99.3% | 90.5% | 90.5% | 96.4% | 97.1% | 95.8% |
| Discharge Status | 95.6% | 97.8% | 93.4% | 98.5% | 92.7% | 89.8% | 97.8% | 97.8% | 95.4% |
| Service Start Date | 97.8% | 100.0% | 94.2% | 99.3% | 94.2% | 90.5% | 97.8% | 86.9% | 95.1% |
| Service End Date | 99.3% | 98.5% | 6.6% | 99.3% | 15.3% | 89.8% | 97.1% | 6.6% | 64.1% |

**Table 3-2—Service Coding Accuracy Results for Psychotherapy Services for All Service Categories**

| Data Element | RAE 1 | RAE 2 | RAE 3 | RAE 4 | RAE 5 | RAE 6 | RAE 7 | DHMP | Aggregate |
|---|---|---|---|---|---|---|---|---|---|
| Procedure Code | 71.5% | 93.4% | 76.6% | 98.5% | 75.9% | 85.4% | 85.4% | 78.1% | 83.1% |
| Diagnosis Code | 75.2% | 98.5% | 87.6% | 97.8% | 89.1% | 94.2% | 94.2% | 92.0% | 91.1% |
| Place of Service | 67.2% | 67.2% | 62.0% | 81.8% | 64.2% | 73.0% | 78.1% | 76.6% | 71.3% |
| Service Category Modifier | 76.6% | 97.1% | 76.6% | 99.3% | 75.9% | 74.5% | 68.6% | 78.1% | 80.8% |
| Unit | 72.3% | 99.3% | 93.4% | 99.3% | 92.0% | 100.0% | 99.3% | 94.9% | 93.8% |
| Service Start Date | 76.6% | 98.5% | 92.7% | 99.3% | 92.7% | 100.0% | 100.0% | 96.4% | 94.5% |
| Service End Date | 76.6% | 98.5% | 92.7% | 99.3% | 92.7% | 100.0% | 100.0% | 96.4% | 94.5% |
| Population | 76.6% | 99.3% | 93.4% | 99.3% | 92.0% | 98.5% | 99.3% | 96.4% | 94.3% |
| Duration | 75.2% | 91.2% | 89.8% | 99.3% | 90.5% | 95.6% | 94.2% | 92.7% | 91.1% |
| Staff Requirement | 75.2% | 99.3% | 85.4% | 99.3% | 86.9% | 94.2% | 95.6% | 93.4% | 91.1% |

**Table 3-3—Service Coding Accuracy Results for Residential Services for All Service Categories**

| Data Element | RAE 1 | RAE 2 | RAE 3 | RAE 4 | RAE 5 | RAE 6 | RAE 7 | DHMP | Aggregate |
|---|---|---|---|---|---|---|---|---|---|
| Procedure Code | 92.0% | 100.0% | 95.6% | 99.3% | 96.4% | 95.6% | 93.4% | 97.1% | 96.2% |
| Diagnosis Code | 89.8% | 97.1% | 91.2% | 96.4% | 93.4% | 92.0% | 94.2% | 87.6% | 92.7% |
| Place of Service | 92.0% | 97.8% | 96.4% | 99.3% | 96.4% | 98.5% | 100.0% | 97.1% | 97.2% |
| Service Category Modifier | 92.0% | 100.0% | 95.6% | 99.3% | 96.4% | 88.3% | 88.3% | 97.1% | 94.6% |
| Unit | 92.0% | 100.0% | 96.4% | 98.5% | 96.4% | 94.9% | 98.5% | 97.1% | 96.7% |
| Service Start Date | 92.0% | 100.0% | 94.9% | 99.3% | 96.4% | 98.5% | 100.0% | 97.1% | 97.3% |
| Service End Date | 92.0% | 100.0% | 94.9% | 99.3% | 96.4% | 97.1% | 99.3% | 97.1% | 97.0% |
| Population | 92.0% | 100.0% | 96.4% | 99.3% | 96.4% | 98.5% | 100.0% | 97.1% | 97.4% |
| Duration | 92.0% | 100.0% | 96.4% | 99.3% | 96.4% | 98.5% | 100.0% | 97.1% | 97.4% |
| Staff Requirement | 92.0% | 100.0% | 96.4% | 99.3% | 96.4% | 98.5% | 100.0% | 97.1% | 97.4% |

# Over-Read of Sample Cases

Each RAE and DHMP submitted an EDV response file to HSAG and the Department containing all required data fields and aligning with the EDV response data layout outlined in the guidelines and presented in Appendix A. RAE 411 Methodology.

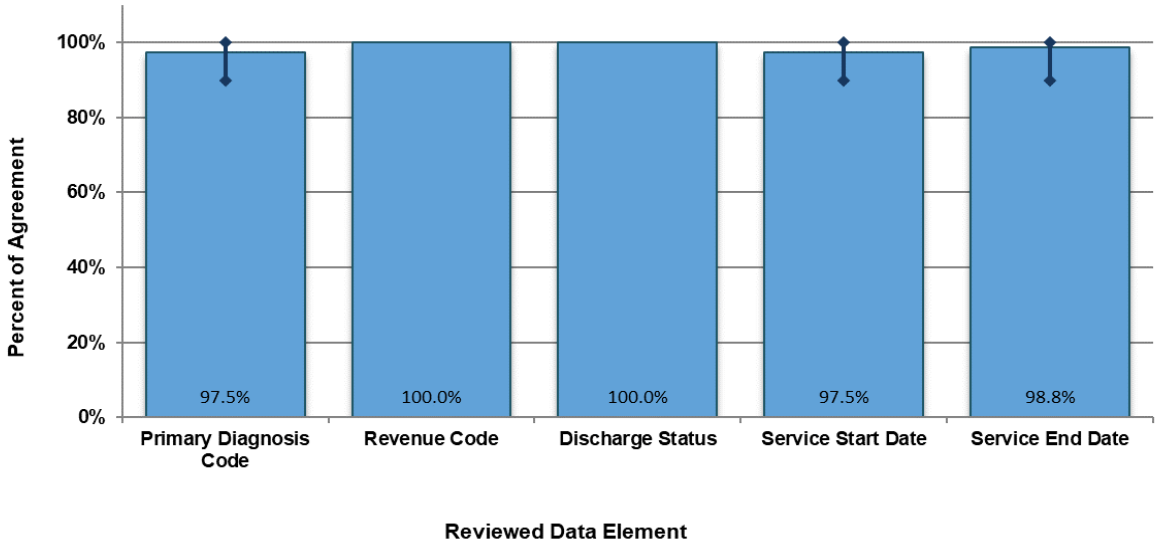
Following HSAG's over-read, HSAG tabulated agreement results that could range from 0.0 percent to 100 percent, where 100 percent represents perfect agreement between the RAE's or DHMP's EDV results and HSAG's over-read results, and 0.0 percent represents complete disagreement. The remainder of this section details HSAG's over-read findings by service category.

## *Over-Read of Sample Cases: Inpatient Services*

### Overall Agreement Rate

Figure 3-1 presents the aggregate results from HSAG's over-read of the 80 cases sampled from inpatient services encounters (i.e., 10 cases per RAE and DHMP). At 100 percent, the *Revenue Code* and *Discharge Status* data elements had the highest rates of agreement between the RAEs' and DHMP's reviewers and HSAG's reviewers. Two of the validated data elements, *Primary Diagnosis Code* and *Service Start Date*, each had an agreement rate of 97.5 percent. Lastly, the *Service End Date* data element had an agreement rate of 98.8 percent. Overall, HSAG's reviewers agreed with the RAEs' and DHMP's EDV results for all five data elements within a sampled case for 75 of the 80 cases (93.8 percent).

**Figure 3-1—Aggregate Percent Agreement Between HSAG's Over-Read and the RAEs' and DHMP's EDV Findings by Data Element for Inpatient Services**




Note: The upper and lower diamonds represent the highest and lowest agreement rates among the RAEs and DHMP.

## Field-Specific Agreement Rate

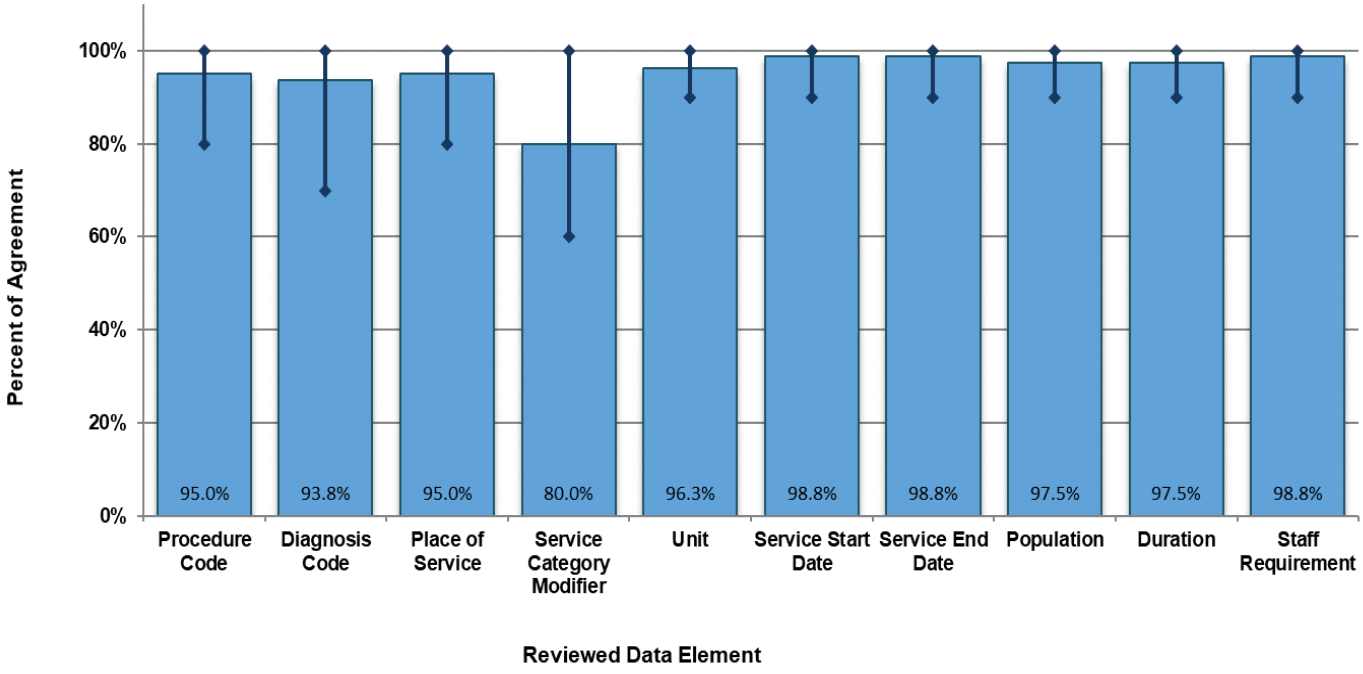
HSAG calculated aggregate agreement rates of at least 97.5 percent for all five of the validated data elements. For the *Revenue Code* and *Discharge Status* data elements, all eight entities had a 100 percent agreement rate between their reviewers and HSAG's reviewers. For the *Primary Diagnosis Code* and *Service Start Date* data elements, each having the lowest agreement rate at 97.5 percent, six of the eight entities had a 100 percent agreement rate, while two entities had a 90.0 percent agreement rate. HSAG's reviewers had a 90.0 percent agreement rate with RAE 5's and DHMP's reviewers for *Primary Diagnosis Code*. For the *Service Start Date* data element, six of the eight entities had at least a 100 percent agreement rate between their reviewers and HSAG's reviewers, while RAE 5 and DHMP had an agreement rate of 90.0 percent. For the *Service End Date* data element, HSAG agreed with seven of the eight entities' reviewers 100 percent of the time, while agreeing with RAE 7's reviewers 90 percent of the time.

## Over-Read of Sample Cases: Psychotherapy Services

### Overall Agreement Rate

Figure 3-2 presents the aggregate results from HSAG's over-read of the 80 cases sampled from psychotherapy services encounters (i.e., 10 cases per RAE and DHMP). At 98.8 percent, the *Service Start Date, Service End Date,* and *Staff Requirement* data elements had the highest agreement rates between the RAEs' and DHMP's reviewers and HSAG's reviewers. The remaining validated data elements had agreement rates that ranged from 80.0 percent (*Service Category Modifier*) to 97.5 percent (*Population* and *Duration*). Overall, HSAG's reviewers agreed with the RAEs' and DHMP's reviewers for all 10 data elements within a sampled case for 54 of the 80 over-read cases (67.5 percent).

**Figure 3-2—Aggregate Percent Agreement Between HSAG's Over-Read and the RAEs' and DHMP's EDV Findings by Data Element for Psychotherapy Services**




Note: The upper and lower diamonds represent the highest and lowest agreement rates among the RAEs and DHMP.

### Field-Specific Agreement Rate

HSAG calculated aggregate agreement rates of at least 80.0 percent for all 10 of the validated data elements. For three of the 10 data elements (*Service Start Date, Service End Date,* and *Staff Requirement*), HSAG's reviewers agreed with seven of the eight entities 100 percent of the time and RAE 2's reviewers 90 percent of the time, resulting in an overall agreement rate of 98.8 percent. For six of the 10 data elements (*Unit, Service Start Date, Service End Date, Population, Duration,* and *Staff*

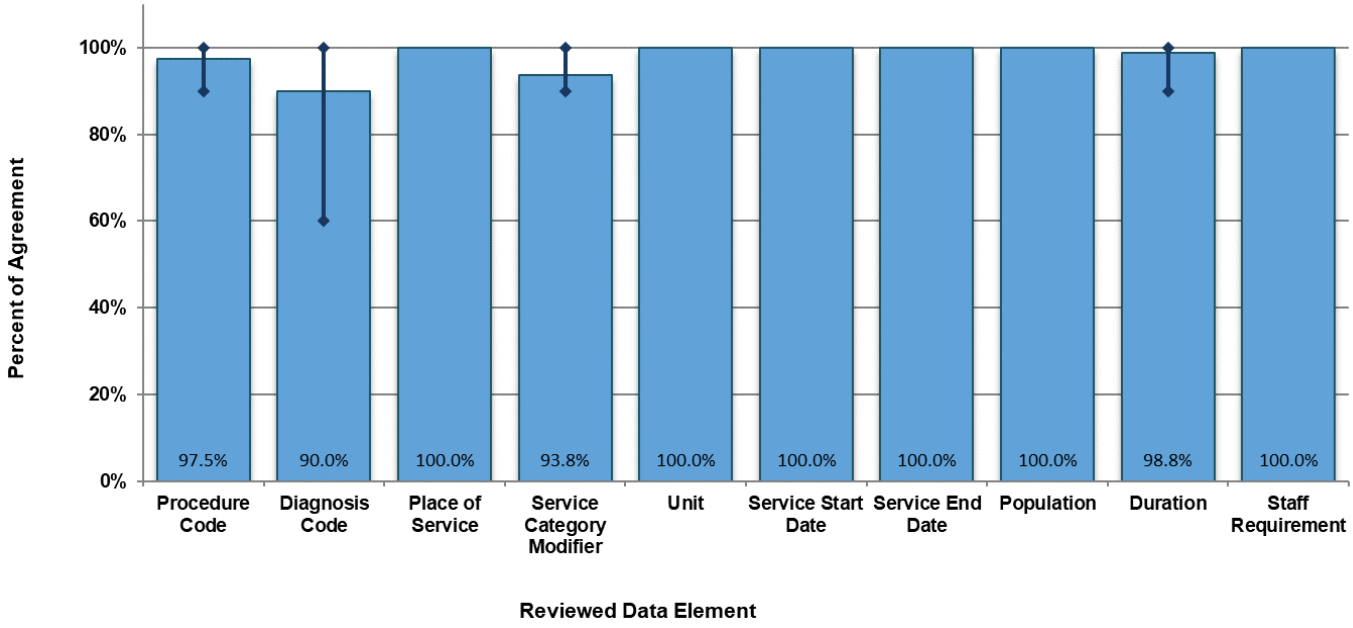
*Requirement*), HSAG's reviewers agreed with all entities' reviewers at least 90.0 percent of the time. HSAG's reviewers agreed with seven of the entities' reviewers at least 90.0 percent of the time for the *Procedure Code* and *Place of Service* data elements, resulting in an overall agreement rate of 95.0 percent. For the *Procedure Code* data element, HSAG's reviewers agreed with RAE 2's reviewers 80 percent of the time, while agreeing with RAE 1's and RAE 3's reviewers 90 percent of the time. For the *Place of Service* data element, HSAG's reviewers agreed with RAE 5's reviewers 80 percent of the time, while agreeing with RAE 1's and RAE 6's reviewers 90 percent of the time. The *Service Category Modifier* data element had the lowest aggregate agreement rate at 80.0 percent. HSAG's reviewers agreed with two of the entities' reviewers (RAE 4 and RAE 6) 100 percent of the time and with two other entities' reviewers (RAE 1 and RAE 2) 60.0 percent of the time.

## Over-Read of Sample Cases: Residential Services

### Overall Agreement Rate

Figure 3-3 presents the aggregate results from HSAG's over-read of the 80 cases sampled from residential services encounters (i.e., 10 cases per RAE and DHMP). At 100 percent, the *Place of Service, Unit, Service Start Date, Service End Date, Population,* and *Staff Requirement* data elements had the highest agreement rates between the RAEs' and DHMP's reviewers and HSAG's reviewers. The remaining validated data elements had an agreement rate that ranged from 90.0 percent (*Diagnosis Code*) to 98.8 percent (*Duration*). Overall, HSAG's reviewers agreed with the RAEs' and DHMP's reviewers for all 10 data elements within a sampled case for 67 of the 80 over-read cases (83.8 percent).

**Figure 3-3—Aggregate Percent Agreement Between HSAG's Over-Read and the RAEs' and DHMP's EDV Findings by Data Element for Residential Services**




Note: The upper and lower diamonds represent the highest and lowest agreement rates among the RAEs and DHMP.

### Field-Specific Agreement Rate

HSAG calculated aggregate agreement rates of at least 90.0 percent for all 10 of the validated data elements. For the *Place of Service, Unit, Service Start Date, Service End Date, Population,* and *Staff Requirement* data elements, which had the highest aggregate agreement rate at 100 percent, HSAG's reviewers agreed with all entities' reviewers 100 percent of the time. The *Diagnosis Code* had the lowest aggregate agreement rate at 90.0 percent, and HSAG's reviewers agreed with five entities' reviewers (RAE 1, RAE 2, RAE 4, RAE 6, and RAE 7) 100 percent of the time, while agreeing with the remaining entities' reviewers at least 60.0 percent of the time.

# 4. Discussion

## Conclusions

The following sections present analytic considerations to consider, a discussion of the RAE 411 EDV over-read results, and recommendations for the Department and entities to review.

## Analytic Considerations

Due to the nature of the methodology and data sources, the following analytic considerations apply to the FY 2024–2025 RAE 411 EDV and over-read results:

- The Department samples 411 encounters to ensure sufficient statistical power to draw reliable conclusions; however, including multiple service categories could reduce the statistical precision and make it challenging to generalize results across the different service categories with the same level of confidence. It is important that the sample the Department generates is representative of all encounters eligible for study inclusion. HSAG has provided recommendations to the Department meant to ensure that the sampling approach is well documented and thoroughly described.
- Medical record abstraction requires the expertise of nurse reviewers and medical coders who may apply varying, though legitimate, interpretations for coding rules and processes. Such variation between HSAG's reviewers and the RAEs' and DHMP's reviewers may lead to reduced agreement rates among the over-read results. To minimize the effects of this variation, the Department and HSAG solicited the RAEs' and DHMP's input on the guidelines and were directed to include abstraction notes to communicate their decisions and findings to HSAG for specific review.
- HSAG followed guidelines approved by the Department and reviewed by the entities to ensure consistent methodological approaches across all entities. Following the outlined approach, RAE 3, RAE 5, and DHMP reported significantly low service coding accuracy rates for the *Service Start Date* and *Service End Date* data elements for inpatient services. Based on prior years' discussions, these entities have the detail dates for these fields in the encounter data, while the medical records contain header dates. Since the two fields are not comparable across the two data sources, the low service coding accuracy rates should not be used as an indicator for the accuracy of provider-submitted data.

## Discussion

For 196 of the 240 over-read cases, HSAG's reviewers agreed with the determinations made by the RAEs' and DHMP's reviewers for all data elements (i.e., an all-element agreement rate of 81.7 percent). In 36 of the 44 cases wherein HSAG disagreed with a reviewer, HSAG agreed with the RAEs' and DHMP's reviewers for all but one data element. HSAG's reviewers agreed with RAE 4's reviewers for 100.0 percent of the data elements for 29 of 30 cases, resulting in an overall agreement rate of 96.7

percent. Further, HSAG's reviewers reported an overall agreement rate of at least 80 percent for seven entities. HSAG's reviewers, however, agreed with RAE 5's reviewers 100 percent of the time in the least number of cases (20 of 30 cases), resulting in the lowest overall agreement rate of 66.7 percent.

For inpatient services, HSAG reviewers identified discrepancies with the entities' reviewers on three data elements (*Primary Diagnosis Code, Service Start Date,* and *Service End Date*). Specifically, disagreements occurred in two cases involving the *Primary Diagnosis Code* and *Service Start Date*, and in one case for RAE 7 involving the *Service End Date*. For the *Service End Date* data element, HSAG's reviewers indicated that the medical record contained the incorrect date, leading to the disagreement. For all other disagreements, HSAG's reviewers indicated that the medical record did support the encounter value.

For psychotherapy services, HSAG's reviewers disagreed with one or more data elements for all RAEs and DHMP. The *Service Category Modifier* data element had the lowest overall agreement rate at 80.0 percent, and HSAG's reviewers disagreed with six of the entities in one or more cases. The two most common disagreement reasons were that the *Service Category Modifier* was not required in the 2024 State Behavioral Health Services (SBHS) manual (11 cases) and that the medical record supported the encounter value (three cases).

For residential services, HSAG's reviewers disagreed with one or more data elements for RAE 2, RAE 3, RAE 5, and DHMP. HSAG's reviewers disagreed with the entities' reviewers most often regarding the *Primary Diagnosis Code* and *Service Category Modifier* data elements. The most common disagreement reason was that the *Primary Diagnosis Code* was not being documented in the medical record (eight cases), while the *Service Category Modifier* was not required in the 2024 SBHS (four cases).

## Recommendations

Based on the EDV and over-read results described in this report, HSAG recommends that the Department collaborate with the RAEs, DHMP, and HSAG to identify best practices regarding provider education to support service coding accuracy. Identifying such practices may involve requesting and reviewing copies of the RAEs' and DHMP's provider training and/or corrective action documentation, reviewing the RAEs' and DHMP's policies and procedures for monitoring providers' BH encounter data submissions, and verifying that the RAEs and DHMP are routinely monitoring encounter data quality beyond the annual RAE 411 EDV. Additionally, HSAG recommends that the Department collaborate with the RAEs and DHMP to determine the most appropriate method for populating the *Service Start Date* and *Service End Date* data elements for inpatient services. This will help ensure that data are scored and submitted consistently across all entities.

## Plan-Specific Recommendations

Based on the EDV and over-read results described in this report, HSAG offers the following recommendations to improve the overall quality of the RAEs' and DHMP's BH encounter data and the RAEs' and DHMP's abilities to conduct future EDVs:

- HSAG's review of each RAE's and DHMP's EDV response files revealed some discrepancies between EDV results and original encounter data. The Department may consider directing the RAEs and DHMP to incorporate a review of their final EDV data against their original encounter data as a component of the annual EQR RAE 411 Quality Improvement Plan to identify potential biases in the RAEs' and DHMP's internal EDV processes.
- To ensure that the RAEs and DHMP have implemented quality improvement actions identified in the Encounter Data Quality Reports, HSAG continues to recommend that the Department's staff members for each RAE and DHMP:
  - Request copies of the RAEs' and DHMP's provider training and/or process improvement documentation.
  - Request copies of the RAEs' and DHMP's policies and procedures for monitoring providers' BH encounter data submissions.
  - Collaborate with the Department's Rates Section to review the RAEs' and DHMP's encounter data quality documents and verify that RAEs and DHMP are monitoring encounter data quality and ensuring that providers are trained to submit BH encounters that accurately reflect the services rendered and the corresponding medical record documentation. Training materials should distinguish between ongoing education and USCS manual training offered to providers newly contracted with a RAE or DHMP.
- The Department should collaborate with the RAEs and DHMP to decipher how entities should submit data to the Department for the inpatient *Service End Date*.

Complete and accurate encounter data require ongoing quality improvement efforts from multiple stakeholders, including the Department, the entities, and the entities' contracted providers. Although the Department provided no additional input on quality improvement actions resulting from recommendations in the FY 2023–2024 RAE 411 EDV report, focused quality improvement efforts are underway, including an annual EQR activity in which the Department requires the RAEs and DHMP to develop and implement quality improvement activities based on their prior year's RAE 411 service coding accuracy results. HSAG encourages ongoing quality improvement efforts to increase service coding accuracy.

# Appendix A. RAE 411 Methodology

HSAG's independent EDV consisted primarily of an assessment of the RAEs' and DHMP's internal EDV 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 EDV cases were generated randomly from a representative base of BH 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 the RAEs' and DHMP's internal EDV capacity can be verified through assessment of encounter data, supporting medical record documentation, and state-specific documentation standards listed in Colorado's SBHS manuals. These manuals were formerly known as the Uniform Service Coding Standards. Each RAE and DHMP supplied HSAG with an EDV response file containing the RAE's and DHMP's internal EDV results for the 411 cases sampled by the Department. Prior to receiving the RAEs' and DHMP's internal EDV results, HSAG generated an over-read sample of 10 cases for each of the three service category strata within the Department's 411 sampled cases (i.e., HSAG overread 30 total cases for each RAE and DHMP). The evaluation process included the following steps:

## Generation of Over-Read Samples

The Department developed a 411-case sample of final, adjudicated BH encounter lines with dates of service between July 1, 2023, to June 30, 2024, stratified among three service categories.[4,5] The Department selected 137 encounter lines for each RAE and DHMP from each of the following service categories:

- Institutional Encounters from Inpatient Services:
  - Transaction Header data value is 'I,' and
  - Place of service code data value is 21 or 51, or a non-null revenue code, and
  - Procedure code does not include H0017, H0018, or H0019.
  - Exclude substance use disorder (SUD) treatment services where place of service is 55; revenue code is 1000 or 1002; procedure code is H0010, H0011, H2036; or with procedure code modifier HF.
- Professional Encounters from Psychotherapy Services:
  - Services with procedure codes 90832, 90833, 90834, 90836, 90837, 90838, 90846, 90847, 90849, or 90853

[4] In the event that a RAE's or DHMP's encounter data did not contain 137 unique members with final, adjudicated, professional BH encounter lines within the specified dates of service and service category, the Department selected 137 unique encounter lines that may reflect services among the same members.

[5] While the guidelines indicated that the Department's sampling would be limited to professional BH encounters, HSAG's review of the sampled cases determined that the Department included institutional encounters in the sample frame.

- Professional Encounters from Residential Services:
  - All services with procedure codes H0017, H0018, or H0019.
  - Exclude SUD treatment services where place of service is 55; revenue code is 1000 or 1002; procedure code is H0010, H0011, H2036; or with procedure code modifier HF.

The Department submitted the 411-case sample lists to the RAEs, DHMP, and HSAG in December 2024; each RAE and 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 10 identification numbers for unique individuals from each service category and then selected a single encounter line for each of the 10 individuals, resulting in a list of 10 randomly selected encounter lines per service category and 30 cases overall for each RAE and DHMP.

## EDV Tool Development

Each RAE and DHMP submitted its response file containing internal EDV results for the 411 sampled cases to HSAG in March 2025. HSAG designed a web-based data collection tool and tool instructions in alignment with the guidelines and with the pertinent versions of the SBHS manual.[6] HSAG pre-populated encounter data values and the RAEs' and DHMP's EDV results using a control file containing select fields from the Department's encounter data flat file and the RAEs' and DHMP's corresponding internal EDV results for the over-read sample cases. Pre-populated information could not be altered, and HSAG's reviewers were required to actively select an over-read response for each data element. Corresponding medical records procured by the RAEs and DHMP were linked to cases within the tool. The web-based tool allowed the HSAG analysts to extract Microsoft (MS) Excel files containing encounter data, the RAEs' and DHMP's EDV responses, and the HSAG reviewers' responses for all over-read cases. HSAG's reviewer oversight process was also integrated into the web-based tool, and all inter-rater reliability (IRR) testing was conducted using the tool.

## HSAG's Over-Read Process

HSAG evaluated the accuracy of the RAEs' and DHMP's EDV findings in April 2025 and entered all over-read results into the web-based EDV tool. Specifically, HSAG's reviewers evaluated the RAEs' and DHMP's accuracy in validating the providers' submitted BH encounter data in accordance with the SBHS manuals specific to the study period. HSAG's EDV over-read considered the RAEs' and DHMP's encounter data, supporting medical record documentation, and the version(s) of the USCS manual used by the RAEs and DHMP during their EDV. HSAG's reviewers evaluated whether the RAE's and DHMP's EDV determinations for each encounter were supported by the medical record and

[6] Given the dates of service for encounters in this study, the guidelines permit the use of the following versions of the SBHS manual: the July 2023 version covering dates of service from July 1 through September 30, 2023; the October 2023 version covering dates of service from October 1 through December 31, 2023; the January 2024 version covering dates of service from January 1 through March 31, 2024; and the April 2024 version covering dates of service from April 1, 2024, through present. All versions are available from the Department at: https://hcpf.colorado.gov/accountable-care-collaborative-phase-ii-provider-and-stakeholder-resource-center.

whether the medical record contained the minimum documentation required to support the service documented in the encounter data.

HSAG's over-read did not evaluate the quality of BH record documentation or the providers' accuracy in submitting encounter data, only whether the RAEs' and DHMP's EDV responses were accurate based on HSAG's review of the supporting BH documentation submitted by the RAEs and DHMP.

HSAG trained nurse reviewers to conduct the over-read, with nurse managers conducting IRR and providing oversight for the case review and data abstraction. During the over-read, the reviewer located the selected date of service in the submitted BH record and verified the presence and/or supporting documentation in the medical record for the study elements (e.g., procedure codes, diagnosis codes) as well as whether the study elements aligned with coding standards defined in the SBHS manual. National coding guidelines were only used when Current Procedural Terminology (CPT) codes and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) codes were not included in the SBHS manual. Next, the HSAG reviewer assessed the RAE's and DHMP's EDV response with respect to the accuracy of the data submitted by the provider. If the HSAG reviewer agreed with the RAE's and DHMP's EDV response, a response of "agree" was selected in the tool. If the HSAG reviewer disagreed with the RAE's and DHMP's EDV response, a response of "disagree" was selected in the tool. In the event of a disagreement with the RAE's and DHMP's EDV findings, the HSAG reviewer would select from the tool a reason from a list of predetermined disagreement reasons specific to each data element. The EDV over-read findings presented in this report were based on HSAG's percent of agreement or disagreement with the RAE's and DHMP's responses.

Prior to beginning abstraction, HSAG's reviewers participated in an IRR assessment using training cases. To proceed with abstraction on study cases, reviewers were required to score 95 percent or higher on the post-training IRR. If this threshold was not met, the nurse managers provided retraining, 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 reviewer and comparing the over-read results to those from a second reviewer. For cases in which over-read discrepancies were identified between the first and second reviewers, a third "Gold Standard" review was conducted by a nurse manager 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 retraining of the reviewer(s).

## Analysis Process

Following completion of the over-read, HSAG analysts exported the data abstraction results from the over-read tool and consulted with the nurse managers as needed for clarification of selected over-read results. HSAG analysts assessed the over-read results to determine the percentage of records for which the HSAG reviewer agreed with the internal EDV response from each RAE and DHMP. Statewide and entity-specific results were tabulated by service category for data elements validated by the RAEs and DHMP and overread by HSAG. Analysis results were independently validated by a second HSAG analyst.

## Response Data Layout for Encounter Quality Audit for RAEs and DHMP

This section was copied from the *FY 2024–2025 Annual RAE Encounter Data Quality Review Guidelines Appendix II*, including a table defining the *Response Data Layout for RAEs' 411 EDV Results*. HSAG made cosmetic edits to align this text to the current report.

These tables show the requested data layout for the EDV response files that the RAEs and DHMP will submit to the Department. The information should be submitted as two separate MS Excel documents:

- The "Inpatient" file will have 138 rows (i.e., a header row and one row per sampled inpatient encounter line) and should be populated into the MS Excel file as noted in the Data Description column of Table A-1.
- The "Professional" file will have 275 rows (i.e., a header row and one row per sampled psychotherapy or residential services professional encounter line) and should be populated into the MS Excel file as noted in the Data Description column of Table A-2.

Guidance for specific encounter data scenarios is shown following the data layout tables.

**Table A-1—411 EDV Response Data Layout for Inpatient Services Encounter Lines**

| Data Element (Field) | | Response Field Variable | Data Description | Format | Length |
|---|---|---|---|---|---|
| 0 | Record No | RECORD_NO | Sequential number for each of 137 records, should align with the *Record No* in the flat file (Appendix I) | X | Integer |
| 1 | Encounter Primary Diagnosis Code | ENC_DIAG | 0 = No or insufficient documentation, assignment of incorrect primary diagnosis code<br>1 = Correct primary diagnosis code | X | 1 |
| 2 | Encounter Revenue Code | ENC_REV | 0 = No or insufficient documentation, incorrect revenue code<br>1 = Correct revenue code | X | 1 |
| 3 | Encounter Discharge Status | ENC_DCSTAT | 0 = No or insufficient documentation, incorrect discharge status<br>1 = Correct discharge status | X | 1 |
| 4 | Encounter Service Start Date | ENC_FDOS | 0 = No or insufficient documentation, incorrect service start date<br>1= Correct service start date | X | 1 |
| 5 | Encounter Service End Date | ENC_LDOS | 0 = No or insufficient documentation, incorrect service end date<br>1 = Correct service end date | X | 1 |
| 6 | Documented Diagnosis Code | DOC_DIAG | Enter correct primary diagnosis code if present in the supporting documentation<br>Enter "No Doc" if no or insufficient documentation of correct diagnosis code | X | 7 |
| 7 | Documented Revenue Code | DOC_REV | Enter correct revenue code if present in supporting documentation | X | 4 |

| Data Element (Field) | | Response Field Variable | Data Description | Format | Length |
|---|---|---|---|---|---|
| | | | Enter "No Doc" if no or insufficient documentation of correct revenue code | | |
| 8 | Documented Discharge Status | DOC_DCSTAT | Enter correct discharge status if present in supporting documentation<br>Enter "No Doc" if no or insufficient documentation of correct discharge status | X | 8 |
| 9 | Documented Service Start Date | DOC_FDOS | Service Start Date in the documentation<br>"No Doc" if there is no documentation | MM/DD /YYYY | 10 |
| 10 | Documented Service End Date | DOC_LDOS | Service End Date in the documentation<br>"No Doc" if there is no documentation | MM/DD /YYYY | 10 |
| 11 | E&M Guidelines Version | EM_VERS | 1 = 2021 version of Evaluation and Management Services Documentation Guidelines<br>2 = 2023 version of Evaluation and Management Services Documentation Guidelines<br>9 = Does Not Apply | X | 1 |
| 12 | Comments (conditionally required) | COMMENTS | Reviewer should enter comments supporting the decision made.<br>Comments are required in the following scenarios:<br>• If no supporting medical records were provided, enter, "no documentation received from provider"<br>• If medical records do not support the date of service and subsequent data elements were scored "0", enter, "DOS not found in MR"<br>• If a decision support tool or supplemental documentation was used, enter, "refer to document: <file name>"<br>• If the case includes supplemental medical record pages without a Medicaid ID, enter, "Supplemental medical record pages without a Medicaid ID were submitted but not used for validation"<br>Comments are required to support the following scenarios:<br>• To provide details regarding non-specific primary diagnosis codes<br>• To provide details regarding agreement or disagreement with the encounter start date for inpatient stays that began as an observation stay<br>• To provide details regarding the documentation supporting an inpatient discharge status determination | X | Flexible |

**Table A-2—411 EDV Response Data Layout for Psychotherapy and Residential Professional Services Encounter Lines**

| Data Element (Field) | | Response Field Variable | Data Description | Format | Length |
|---|---|---|---|---|---|
| 0 | Record No | RECORD_NO | Sequential number for each of 274 records, should align with the *Record No* in the flat file (Appendix I) | X | Integer |
| 1 | Encounter Procedure Code | ENC_PROC | 0 = No supporting documentation, or not consistent with the documentation, or not in the SBHS, or does not comply with the service description in SBHS (Note 4 below)<br>1 = Yes, consistent with the minimum supporting documentation requirements and complies with SBHS | X | 1 |
| 2 | Encounter Diagnosis Code | ENC_DIAG | 0 = No documentation, or not consistent with the supporting documentation, or does not comply with the diagnosis code requirement in SBHS<br>1 = Yes, complies with SBHS and consistent with the supporting documentation | X | 1 |
| 3 | Encounter POS | ENC_POS | 0 = No documentation, or not consistent with the supporting documentation, or not comply with SBHS<br>1 = Yes, complies with SBHS and consistent with the supporting documentation | X | 1 |
| 4 | Encounter Service Cat/Program Category (Procedure Modifier 1) | ENC_MOD | 0 = Does not comply with the program category requirement in the SBHS for the encounter procedure code<br>1 = Yes, complies with SBHS and consistent with the supporting documentation | X | 1 |
| 5 | Encounter Units | ENC_UNITS | 0 = No supporting documentation, or not consistent with the documentation or not within the duration allowed by SBHS<br>1 = Yes, complies with SBHS and consistent with the supporting documentation | X | 1 |
| 6 | Encounter Service Start Date | ENC_FDOS | 0 = Start date does not comply with the supporting documentation<br>1 = Yes, consistent with the supporting documentation | X | 1 |
| 7 | Encounter Service End Date | ENC_LDOS | 0 = End date does not comply with the supporting documentation<br>1 = Yes, consistent with the supporting documentation | X | 1 |
| 8 | Documented Population | DOC_POP | 0 = No documentation or not comply with SBHS<br>1 = Yes, complies with SBHS | X | 1 |
| 9 | Documented Duration | DOC_DUR | 0 = No documentation or not comply with SBHS<br>1 = Yes, complies with SBHS | X | 1 |

| Data Element (Field) | | Response Field Variable | Data Description | Format | Length |
|---|---|---|---|---|---|
| 10 | Documented Staff Requirements | DOC_STAFF | 0 = No documentation or not comply with SBHS, if procedure code is included in SBHS<br>1 = Yes, complies with SBHS (Note 10 below) | X | 1 |
| 11 | Documented Procedure Code | DOC_PROC | Procedure code in the supporting documentation<br>"No Doc" if there is no document or unable to determine service based on documentation | X | 5 |
| 12 | Documented E&M Procedure Code | DOC_EM | For psychotherapy cases with a documented procedure code of 90833, 90836, or 90838, the primary E&M procedure code associated with the psychotherapy service in the supporting documentation<br>"No Doc" if there is no document or unable to determine the associated E&M procedure code based on documentation<br>Enter "NA" if data element does not pertain to the service type or if the psychotherapy procedure code is a stand-alone code that does not require an E&M code<br>*Required for Psychotherapy encounters with a documented procedure code of 90833, 90836, or 90838.* | X | 5 |
| 13 | Documented Diagnosis Code | DOC_DIAG | Diagnosis code in the supporting documentation<br>"No Doc" if there is no documentation | X | 7 |
| 14 | Documented Place of Service (POS) | DOC_POS | Place of Service in the supporting documentation<br>"No Doc" if there is no documentation | X | 2 |
| 15 | Documented Units | DOC_UNITS | Maximum of the units complying with SBHS, if procedure code is included in SBHS<br>"No Doc" if there is no document | X | Integer |
| 16 | Documented Service Start Date | DOC_FDOS | Start Date of Service in the documentation<br>"No Doc" if there is no documentation | MM/DD /YYYY | 10 |
| 17 | Documented Service End Date | DOC_LDOS | End Date of Service in the documentation<br>"No Doc" if there is no documentation | MM/DD /YYYY | 10 |
| 18 | SBHS Version Used | SBHS_VERS | 1 = July 2023 Version, covering dates of service from July 1, 2023, through September 30, 2023<br>2 = October 2023 Version, covering dates of service from October 1, 2023, through December 31, 2023<br>3 = January 2024 Version, effective January 1, 2024, through March 31, 2024<br>4 = April 2024 Version, effective April 1, 2024, through present<br>For previous coding documents, please email hcpf_bhcoding@state.co.us. | X | 1 |
| 19 | Comments (conditionally required) | COMMENTS | Reviewer should enter comments supporting the decision made. | X | Flexible |

| Data Element (Field) | | Response Field Variable | Data Description | Format | Length |
|---|---|---|---|---|---|
| | | | Comments are required in the following scenarios:<br>• If no supporting medical records were provided, enter, "no documentation received from provider"<br>• If medical records do not support the date of service and subsequent data elements were scored "0", enter, "DOS not found in MR"<br>• If a decision support tool or supplemental documentation was used, enter, "refer to document: <file name>"<br>• If the case includes supplemental medical record pages without a Medicaid ID, enter, "Supplemental medical record pages without a Medicaid ID were submitted but not used for validation" | | |

## 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 Start Date (ENC_FDOS) and Encounter Service End Date (ENC_LDOS) will be scored as "0" and the other data elements will be scored as "0". The Comments field should be used to indicate that data elements were in disagreement due to the invalid date of service.
2. The RAE 411 data quality review considers individual encounter lines that are sampled from encounter data submitted to the Colorado Department of Health Care Policy and Financing (HCPF) by the RAE. 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.
    a. The EDV intends to validate that the encounter data value is supported by the services documented in the medical record. Direct comparison to a coded value on a billing summary may not be appropriate, because the billing summary may have been incorrectly coded prior to the claim submission. A billing document may be used to support the documented encounter data values as long as the medical record shows evidence that the coded values are accurate (i.e., a billing document alone does not support that services were rendered consistent with the pertinent SBHS Guidelines or national coding standards).
3. In the event medical record documentation is unavailable to support the encounter, all elements will be scored as "0" or "No Doc," as applicable to each response field. The Comments field should be

used to indicate that data elements were in disagreement due to the lack of supporting medical records.

a. 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 identifier should be scored as "0" or "No Doc," as applicable to each response field.

b. If a medical record cannot be found and all fields are scored as "0" or "NA," assign the SBHS Version that would have applied to the dates of service in the encounter data. Include the following note in the COMMENTS field: "no documentation received from provider".

4. 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. If the service occurs on a single day, the documentation is adequate if it shows the service start date and a duration.
5. In the event that the inpatient services 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.
6. For psychotherapy or residential services, the Encounter Service Cat/Program Category (ENC_MOD) should be scored "0" if the Encounter Procedure Code (ENC_PROC) is scored "0" Please note that a procedure code modifier is not evaluated for cases sampled for inpatient services.
7. The 90833, 90836, and 90838 procedure codes reflect psychotherapy services billed in conjunction with an E&M code. List the associated E&M code in the Documented E&M Procedure Code (DOC_EM). Score a "0" for the Encounter Procedure Code (ENC_PROC) and "No Doc" for the Documented E&M Procedure Code (DOC_EM) if the psychotherapy service was not correctly added to an E&M code.
8. Documentation for psychotherapy services should include a primary diagnosis on file that is active for the date(s) of service for the psychotherapy encounter. While the diagnosis is not required to be recorded with the case notes for each date of psychotherapy services, the documentation for each service must be tied to the member's current treatment plan and current diagnosis. Depending on the agency's requirements, treatment plans and diagnoses are usually reviewed and updated on a routine basis (e.g., no less than every six months).
9. For the Encounter Procedure Code (ENC_PROC) field, all of the information under the headings of "procedure code description," "service description," "notes," and "technical documentation requirements" should be taken into account when they are applicable. Review of the procedure code should consider all items noted in the SBHS Manual as service content.
10. When the Encounter Procedure Code (ENC_PROC) field is scored as "0", the Documented Procedure Code (DOC_PROC) should list the procedure code best supported by the documentation, even if that code may be different than the procedure code that the provider billed. This allows the RAE to identify instances in which providers may not be assigning an accurate procedure code for services rendered.

a. If the procedure code in the encounter data is not supported by medical record documentation (i.e., ENC_PROC=0) and the service rendered was not billable, score DOC_PROC as "No Doc" and include a note in COMMENTS to indicate that the procedure reflected in the medical record was not a billable service

11. The Documented Staff Requirements (DOC_STAFF) field assesses whether or not the service administrator has the appropriate credentials for the procedure.
    a. Signatures are not a component of complete information for the staff requirement, but are required to meet technical documentation requirements, which are measured in the Encounter Procedure Code (ENC_PROC) field. The ENC_PROC field should be scored as "0" if the medical record does not include the provider's electronic or handwritten signature. An electronic signature from an electronic health record (EHR) is adequate to meeting the SBHS technical documentation requirement for a provider signature.
    b. For procedure codes that allow providers who may have less than a Bachelor's degree, the provider's title should be listed to confirm that the provider meets the staff requirement for the procedure code. As educational requirements for staff may vary by facility, RAEs may opt to have facilities confirm the level of education for non-credentialed staff (e.g., verifying that an individual identified in the medical record as a "milieu counselor" had an appropriate level of education or credential to align with the staff requirements for a specified procedure code).
12. Please refer to the following details for encounter lines with the H0017, H0018, and H0019 procedure codes for residential services:
    a. The procedure code does not need to be included on the shift note(s), as long as the procedure code is present in the medical record for the stay. A billing document may be used to support the documented procedure code as long as the medical record shows evidence that the procedure code is accurate (i.e., a billing document alone does not support that services were rendered consistent with the SBHS Guidelines).
    b. The diagnosis does not need to be present on the shift note(s) if the diagnosis is present in the medical record for the stay.
    c. Since the SBHS Service Contents do not require specific times, documentation of "day" or "evening" is acceptable when considering state time, end time, and duration for a service in a residential facility. A summary of notes is acceptable in instances in which multiple shift notes cover all hours within a 24-hour period for which the client was present if admitted day-of.
        i. If no programmatic services were rendered to the member on the sampled date of service during a residential stay, the reviewer should verify that the medical record contains documentation indicating that no services were necessary (e.g., a progress note indicating that programmatic services were not rendered because the member or the therapist were unavailable). If needed, the reviewer may use the COMMENTS to explain the decision.
    d. The place of service (POS) does not need to be present on the shift note(s) if the place of service is present in the medical record for the stay.

e. If the shift note does not meet technical documentation requirements, score the Encounter Procedure Code (ENC_PROC) as "0" and evaluate other EDV Response fields with respect to the correct procedure code. For example, if ENC_PROC=0 because technical documentation was missing, use DOC_PROC="H0017" and use the COMMENTS to indicate that ENC_PROC was scored negatively because technical documentation requirements were not met.

f. The residential service procedure code is billed with a maximum of 24 hours and no minimum. Therefore, an admission summary or shift note with the pertinent Service Contents are acceptable documentation for the procedure code for dates of services that are the day of admission.

g. If the medical record documentation does not align with the SBHS Guidelines for the residential service procedure code, all fields should "0" or "No Doc," as applicable. Individual and group services may not reflect the overall residential service procedure code; a shift note or daily note would corroborate the residential service procedure code.

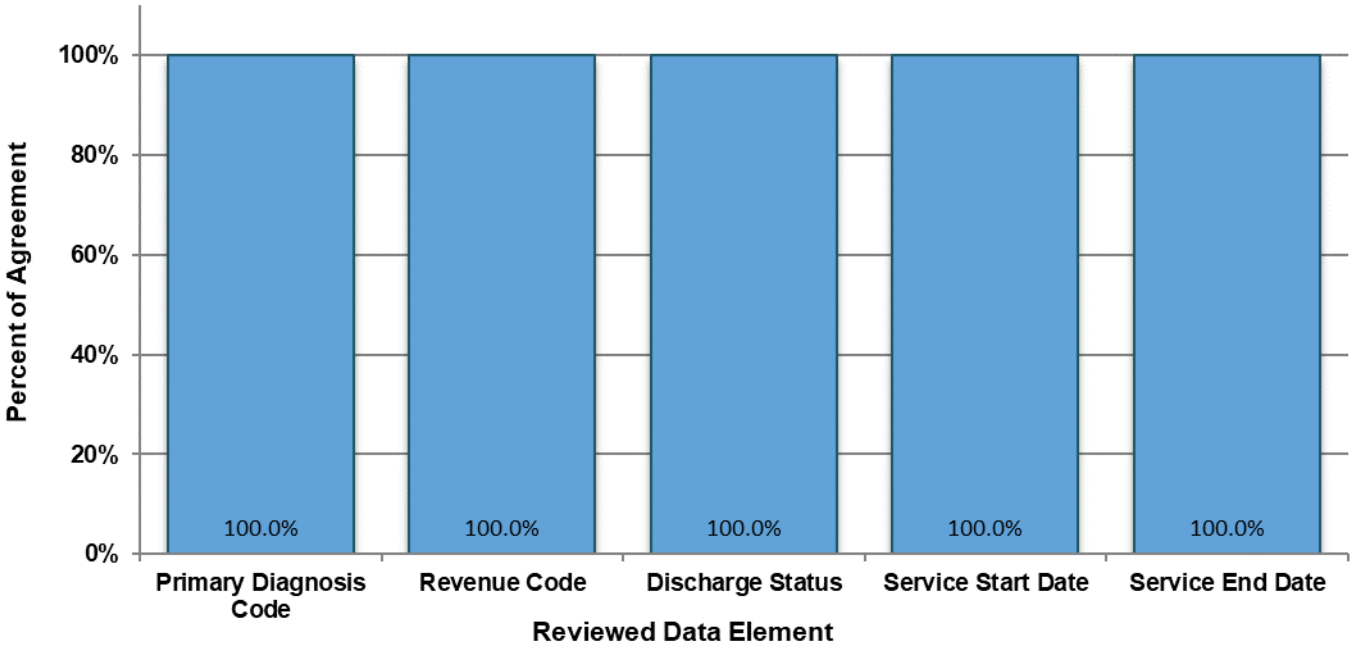
# Appendix B. Over-Read Findings for RAE 6—Colorado Community Health Alliance

Figure B-1 through Figure B-3 present aggregate results from HSAG's 30-case over-read of RAE 6's 411 case sample. HSAG tabulated agreement results that could range from 0.0 percent to 100 percent, where 100 percent represents perfect agreement between RAE 6's EDV results and HSAG's over-read results, and 0.0 percent represents complete disagreement. Across all service categories, agreement values ranged from 90.0 percent to 100 percent.

## Inpatient Services

Figure B-1 shows that HSAG's reviewers agreed with RAE 6's inpatient services EDV results for 100 percent of the 10 over-read cases for all five validated data elements.

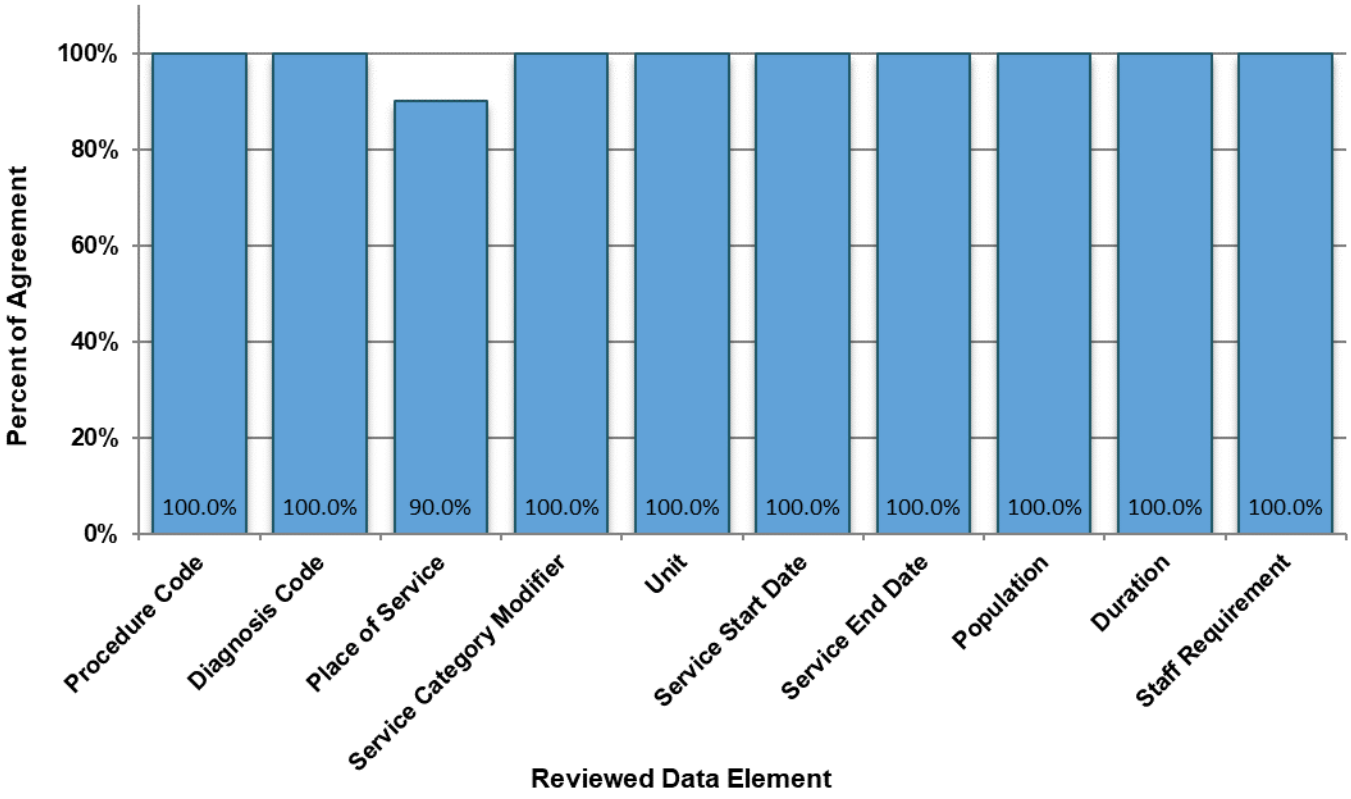
**Figure B-1—Aggregate Percent Agreement Between HSAG's Over-Read and RAE 6's EDV Findings by Data Element for Inpatient Services**



## Psychotherapy Services

Figure B-2 shows that HSAG's reviewers agreed with RAE 6's psychotherapy services EDV results for 100 percent of the 10 over-read cases for nine of the 10 validated data elements. At 100 percent, the *Procedure Code*, *Diagnosis Code, Service Category Modifier, Unit, Service Start Date, Service End Date, Population, Duration,* and *Staff Requirement* data elements had the highest rates of agreement between RAE 6's EDV results and HSAG's over-read results. At 90.0 percent, the *Place of Service* data element had the lowest rate of agreement between RAE 6's EDV results and HSAG's over-read results.

**Figure B-2—Aggregate Percent Agreement Between HSAG's Over-Read and RAE 6's EDV Findings by Data Element for Psychotherapy Services**



## Residential Services

Figure B-3 shows that HSAG's reviewers agreed with RAE 6's residential services EDV results for 100 percent of the 10 over-read cases for nine of the 10 validated data elements. At 100 percent, the *Procedure Code, Diagnosis Code, Place of Service, Service Category Modifier, Unit, Service Start Date, Service End Date, Population,* and *Staff Requirement* data elements had the highest rates of agreement between RAE 6's EDV results and HSAG's over-read results. At 90.0 percent, the *Duration* data element had the lowest rate of agreement between RAE 6's EDV results and HSAG's over-read results.

**Figure B-3—Aggregate Percent Agreement Between HSAG's Over-Read and RAE 6's EDV Findings by Data Element for Residential Services**