Fiscal Year 2022–2023 Regional Accountable Entity 411 Encounter Data Validation Over-Read Report for RAE 1: Rocky Mountain Health Plans

June 2023

Contents

In fiscal year (FY) 2022–2023, the Colorado Department of Health Care Policy & Financing (the Department) contracted Health Services Advisory Group, Inc. (HSAG) to conduct an encounter data validation (EDV) study for behavioral health (BH) encounters submitted to the Department from each of the Regional Accountable Entity (RAE) and Denver Health (DH) regions contracted with the Department during FY 2022–2023 (Table 1-1).

Table 1-1—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 under the Centers for Medicare & Medicaid Services (CMS) regulations released in February 2023.[1-1] 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 and DHMP were required to validate a sample of BH encounter data against the corresponding medical record documentation.[1-2]

The Department developed the *Annual RAE BH Encounter Data Quality Review Guidelines* (i.e., the 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.

[1-1] 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: March 22, 2023.

[1-2] 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 2022–2023 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 1-1 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 2022–2023 RAE 411 methodology is presented in Appendix A.

Figure 1-1—RAE 411 Project Flow Process
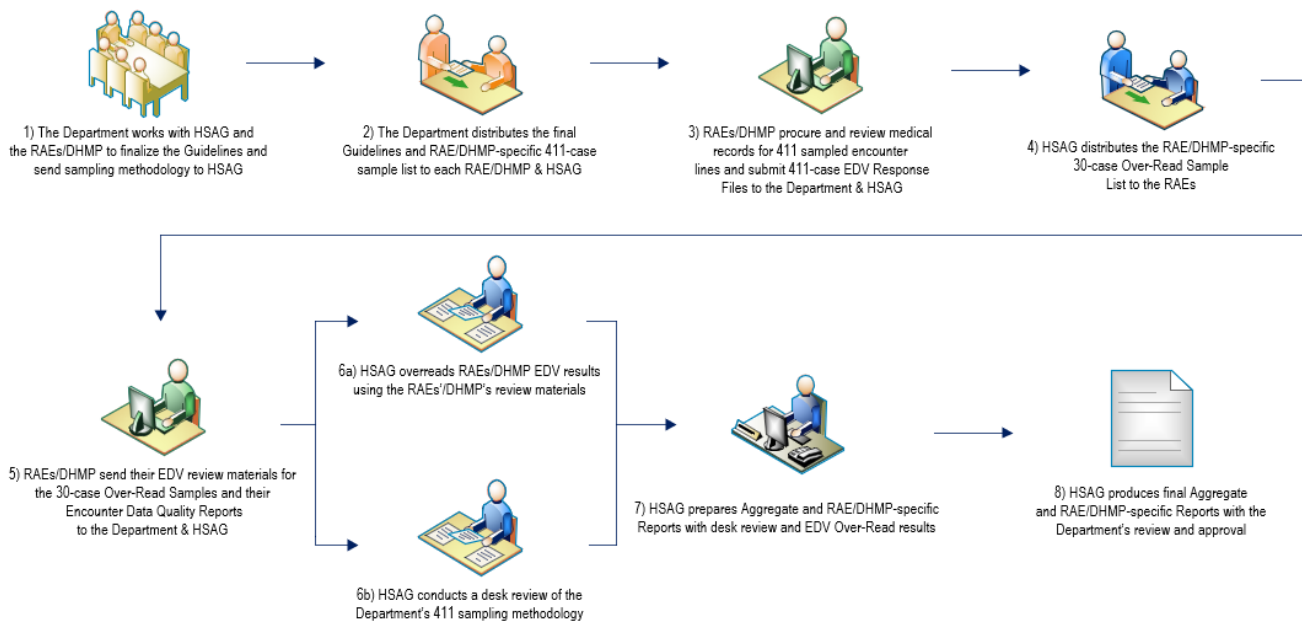
EDV Results and Over-Read of Sample Case Results

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, the *FY 2022–2023 Annual RAE BH Encounter Data Quality Review Guidelines,* to create service coding accuracy[1-3] 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 RAE's 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.

Table 1-2 through Table 1-4 present HSAG's aggregate over-read results and the self-reported service coding accuracy results by service category from the RAEs and DHMP. Each table presents the EDV data element, the aggregate percentage among all entities, the lowest (minimum) percentage, and the highest (maximum) percentages among the RAEs and DHMP for HSAG's over-read results and the self-reported service coding accuracy results.

As shown in Table 1-2, the RAEs' and DHMP's service coding accuracy results for Inpatient Services ranged from 89.7 percent to 98.7 percent for all data elements, while the agreement rate between the RAEs' and DHMP's EDV results and HSAG's over-read results ranged from 95.0 percent to 100 percent. At 95.0 percent, the *Primary Diagnosis Code* and *Service End Date* data elements had the lowest over-read aggregate percentage. For the *Primary Diagnosis Code* data element, RAE 3, RAE 4, RAE 5, and DHMP each had one case without agreement, and for the *Service End Date* data element, RAE 1, RAE 3, RAE 6, and RAE 7 each had one case without agreement.

Table 1-2—Aggregate Over-Read and Service Coding Accuracy EDV Results for Inpatient Services

Data Element	Aggregate Service Coding Accuracy	Aggregate Over-Read Results	Range of Service Coding Accuracy	Range of Over-Read Results
Primary Diagnosis Code	94.2%	95.0%	14.6%	10.0%
Revenue Code	98.7%	100.0%	3.6%	0.0%
Discharge Status	89.7%	96.3%	44.5%	10.0%

[1-3] The term "service coding accuracy" refers to the 411 EDV results tables generated by each RAE and reported in the RAE's Encounter Data Quality Report in alignment with the guidelines.

Data Element	Aggregate Service Coding Accuracy	Aggregate Over-Read Results	Range of Service Coding Accuracy	Range of Over-Read Results
Service Start Date	97.7%	98.8%	6.6%	10.0%
Service End Date	98.5%	95.0%	2.9%	10.0%

As shown in Table 1-3, the RAEs' and DHMP's service coding accuracy results for Psychotherapy Services ranged from 83.4 percent to 94.8 percent for all data elements, while the agreement rate between the RAEs' and DHMP's EDV results and HSAG's over-read results ranged from 88.8 percent to 100 percent. There was substantial variation in the service coding accuracy results across all data elements compared to the over-read results, with a range across all RAEs and DHMP service coding accuracy results of 20.4 percent or more. Although the over-read result ranges also varied, nine of the 10 validated data elements had a range of 20.0 percent or less. The one exception, *Service Category Modifier*, had a range of 90.0 percent, which was due to HSAG's reviewers agreeing with RAE 4's reviewers 10.0 percent of the time.

Table 1-3—Aggregate Over-Read and Service Coding Accuracy EDV Results for Psychotherapy Services

Data Element	Aggregate Service Coding Accuracy	Aggregate Over-Read Results	Range of Service Coding Accuracy	Range of Over-Read Results
Procedure Code	88.2%	98.8%	28.5%	10.0%
Diagnosis Code	91.7%	100.0%	22.6%	0.0%
Place of Service	83.4%	92.5%	27.7%	20.0%
Service Category Modifier	89.1%	88.8%	21.2%	90.0%
Unit	94.2%	100.0%	26.3%	0.0%
Service Start Date	94.8%	100.0%	22.6%	0.0%
Service End Date	94.7%	100.0%	21.9%	0.0%
Population	94.8%	100.0%	22.6%	0.0%
Duration	91.9%	100.0%	20.4%	0.0%
Staff Requirement	92.2%	98.8%	23.4%	10.0%

As shown in Table 1-4, HSAG identified a high agreement rate for service coding accuracy and over-read across most data elements for Residential Services cases (i.e., encounter data were supported by medical record documentation in a high percentage of cases within both the RAEs' and DHMP's service coding accuracy results and HSAG's over-read results). The aggregate percentage for both service coding accuracy results and over-read results was high across all data elements for Residential Services cases. Results were at least 95.7 percent (*Diagnosis Code* and *Place of Service)* for service coding accuracy, and the agreement rates were at least 85.0 percent (*Service Category Modifier*). Variation across the RAEs' and DHMP's responses in the service coding accuracy and HSAG's over-read results were generally minimal, with ranges of about 10.0 percent or less. The one exception was in the range of HSAG's over-read results, where the *Service Category Modifier* data element had a range of 100 percent. This was due to HSAG's reviewers agreeing with RAE 4's reviewers 0.0 percent of the time.

Table 1-4—Aggregate Over-Read and Service Coding Accuracy EDV Results for Residential Services

Data Element	Aggregate Service Coding Accuracy	Aggregate Over-Read Results	Range of Service Coding Accuracy	Range of Over-Read Results
Procedure Code	97.3%	100.0%	8.0%	0.0%
Diagnosis Code	95.7%	98.8%	10.2%	10.0%
Place of Service	95.7%	100.0%	11.7%	0.0%
Service Category Modifier	97.3%	85.0%	8.0%	100.0%
Unit	97.4%	100.0%	8.0%	0.0%
Service Start Date	98.0%	100.0%	8.0%	0.0%
Service End Date	97.9%	100.0%	8.0%	0.0%
Population	98.2%	100.0%	8.0%	0.0%
Duration	97.4%	100.0%	8.0%	0.0%
Staff Requirement	98.2%	100.0%	8.0%	0.0%

Discussion

Of the 240 over-read cases, HSAG's reviewers agreed with the RAEs' and DHMP's reviewers' determinations for all data elements for 200 of the 240 over-read cases (i.e., an all-element agreement rate of 83.3 percent).[1-4] Of the cases that were not in complete agreement between the RAEs' and DHMP's reviewers and HSAG's reviewers, 38 of the 40 over-read cases only had one disagreement element.

When examining all service categories combined, the percentage of cases with all elements in agreement ranged from 86.7 percent for DHMP to 33.3 percent for RAE 4. The low all-element agreement rate for RAE 4 was due to the *Service Category Modifier* data element.

When examining the all-element agreement rate across entities within service categories, the all-element agreement rates also varied.

- For Inpatient Services, the all-element agreement rate for all entities was 85.0 percent, with a range from 80.0 percent to 90.0 percent.
  - The most common data element in disagreement between HSAG's reviewers and the entities' reviewers was for the *Primary Diagnosis Code* and *Service End Date* data elements, each having an agreement rate of 95 percent.
  - Across all entities, HSAG agreed with the entities' reviewers 100 percent of the time for one of the five validated data elements.
- For Psychotherapy Services, the all-element agreement rate for all entities was 81.3 percent, with a range from 10.0 percent to 100 percent.
  - The most common data element in disagreement between HSAG's reviewers and the entities' reviewers was for the *Service Category Modifier* data element, which had an agreement rate of 88.8 percent.
  - Across all entities, HSAG agreed with the entities' reviewers 100 percent of the time for six of the 10 validated data elements.
- For Residential Services, the all-element agreement rate for all entities was 83.8 percent, with a range from 0.0 percent to 100 percent.
  - The most common data element in disagreement between HSAG's reviewers and the entities' reviewers was for the *Service Category Modifier* data element, which had an agreement rate of 85.0 percent.
  - Across all entities, HSAG agreed with the entities' reviewers 100 percent of the time for eight of the 10 validated data elements.

[1-4] Disagreement instances exclude fields in which the RAE or DHMP recorded the correct codes found in the supporting documentation.

In general, results from HSAG's FY 2022–2023 RAE 411 over-read suggest a high level of confidence that the RAEs' and DHMP's independent validation findings accurately reflect their encounter data quality. In comparison, the RAEs' and DHMP's self-reported service coding accuracy results reflected more than 80.0 percent agreement for all data elements across all service categories. In fact, the service coding accuracy results were greater than 95.0 percent for all data elements in Residential Services cases. 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 EDV study as a focused mechanism for evaluating quality improvement.

Analytic Considerations

Due to the nature of the methodology and data sources, the following analytic considerations apply to the FY 2022–2023 RAE 411 EDV and over-read results:

- The FY 2022–2023 RAE 411 EDV used a sample size of 411 cases per RAE and DHMP to ensure an adequate sample size to reliably detect invalid encounter data results while limiting the use of resource-intensive medical record procurement and abstraction. Due to the variable BH encounter data volume among the RAEs and DHMP, the 411 sample size may result in varying levels of generalizability among the entities and service categories. Due to the sampling approach, RAE 411 EDV results may not reflect the service coding accuracy of the RAEs' or DHMP's overall BH encounters.

- 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 scenarios.

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 revise its sampling approach to include checks to ensure the appropriate exclusion criteria have been applied to the sample frame.

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 2021–2022 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.

HSAG's findings are comprised of three separate tasks, including 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 the sampled cases from the RAEs and DHMP. The remainder of this section describes the results for these tasks.

Desk Review of 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 for RAE 1 only. 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. While the Department's sampling methodology noted that it required supplemental documentation to support the validity of any data not adhering to the data layout specifications, no details were provided for the final sample frame inclusion criteria. 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.

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 2022–2023 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. Several entities also noted continued challenges in procuring records due to the COVID-19 public health emergency.
- 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 MS SQL Server and a web-based interface for their EDV tools and described a formal audit process used to review errors within the tool. RAE 3, RAE 5, and DHMP noted adjustments were made this year to their data collection tool, introducing a comment field. RAE 3, RAE 5, and DHMP also discussed their inpatient tool 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, RAEs 2 and 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 detailed description of their IRR processes for inpatient encounters, which were conducted by a third-party contractor, but conducted no IRR on residential and psychotherapy encounters as they had only one auditor.

- Additionally, RAEs 2, 3, 4, and 5 and DHMP reported on opportunities for improvement in IRR testing, provider education, and applying corrective action plans (CAPs) to low scoring providers.

Data shown in Table 2-1 through Table 2-3 are summarized 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 the 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 2-1—Service Coding Accuracy Results for Inpatient Services for All Service Categories

Data Element	Service Coding Accuracy Results for Inpatient Services for All Service Categories								Aggregate
	RAE 1	RAE 2	RAE 3	RAE 4	RAE 5	RAE 6	RAE 7	DHMP	
Primary Diagnosis Code	90.5%	99.3%	97.1%	92.0%	93.4%	99.3%	97.1%	84.7%	94.2%
Revenue Code	99.3%	100.0%	97.8%	99.3%	96.4%	100.0%	100.0%	97.1%	98.7%
Discharge Status	95.6%	100.0%	90.5%	97.8%	89.8%	96.4%	55.5%	92.0%	89.7%
Service Start Date	97.8%	100.0%	93.4%	99.3%	97.8%	100.0%	97.8%	95.6%	97.7%
Service End Date	99.3%	100.0%	97.1%	98.5%	97.8%	100.0%	98.5%	97.1%	98.5%

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

Data Element	Service Coding Accuracy Results for Psychotherapy Services for All Service Categories								Aggregate
	RAE 1	RAE 2	RAE 3	RAE 4	RAE 5	RAE 6	RAE 7	DHMP	
Procedure Code	71.5%	100.0%	89.8%	92.0%	87.6%	90.5%	91.2%	83.2%	88.2%
Diagnosis Code	75.2%	97.8%	95.6%	92.7%	95.6%	93.4%	90.5%	92.7%	91.7%
Place of Service	67.2%	94.9%	86.1%	90.5%	77.4%	82.5%	81.8%	86.9%	83.4%
Service Category Modifier	76.6%	97.8%	89.8%	95.6%	87.6%	90.5%	91.2%	83.2%	89.1%
Unit	72.3%	97.8%	98.5%	95.6%	98.5%	97.1%	97.1%	96.4%	94.2%
Service Start Date	76.6%	97.8%	99.3%	95.6%	98.5%	97.1%	97.1%	96.4%	94.8%
Service End Date	76.6%	97.8%	98.5%	95.6%	98.5%	97.1%	97.1%	96.4%	94.7%
Population	76.6%	97.8%	99.3%	95.6%	98.5%	97.1%	97.1%	96.4%	94.8%
Duration	75.2%	95.6%	94.9%	93.4%	92.7%	93.4%	94.9%	94.9%	91.9%
Staff Requirement	75.2%	95.6%	97.1%	95.6%	98.5%	94.9%	92.7%	87.6%	92.2%

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

Data Element	Service Coding Accuracy Results for Residential Services for All Service Categories								Aggregate
	RAE 1	RAE 2	RAE 3	RAE 4	RAE 5	RAE 6	RAE 7	DHMP	
Procedure Code	92.0%	99.3%	94.9%	99.3%	97.1%	100.0%	98.5%	97.1%	97.3%
Diagnosis Code	89.8%	97.1%	95.6%	97.8%	99.3%	94.2%	92.0%	100.0%	95.7%
Place of Service	92.0%	99.3%	97.1%	99.3%	99.3%	88.3%	90.5%	100.0%	95.7%
Service Category Modifier	92.0%	99.3%	94.9%	99.3%	97.1%	100.0%	98.5%	97.1%	97.3%
Unit	92.0%	98.5%	97.1%	99.3%	99.3%	96.4%	96.4%	100.0%	97.4%
Service Start Date	92.0%	99.3%	97.1%	99.3%	99.3%	100.0%	97.8%	99.3%	98.0%
Service End Date	92.0%	99.3%	97.1%	99.3%	98.5%	100.0%	98.5%	98.5%	97.9%
Population	92.0%	99.3%	97.1%	99.3%	99.3%	100.0%	98.5%	100.0%	98.2%
Duration	92.0%	99.3%	97.1%	99.3%	99.3%	96.4%	96.4%	100.0%	97.4%
Staff Requirement	92.0%	99.3%	97.1%	99.3%	99.3%	100.0%	98.5%	100.0%	98.2%

Over-Read of Sample Cases

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

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.

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.

Overall Agreement Rate

Figure 2-1 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, *Revenue Code* had the highest rate of agreement between the RAEs' and DHMP's reviewers and HSAG's reviewers. The remaining validated data elements had an agreement rate ranging from 95.0 percent (*Primary Diagnosis Code* and *Service End Date)* to 98.8 percent (*Service Start Date*). Overall, HSAG's reviewers agreed with the RAEs' and DHMP's EDV results for all five data elements within a sampled case for 68 of the 80 cases (85.0 percent).

Figure 2-1—Aggregate Percent Agreement Between HSAG's Over-Read and the RAEs' and DHMP's EDV Findings by Data Element for Inpatient Services
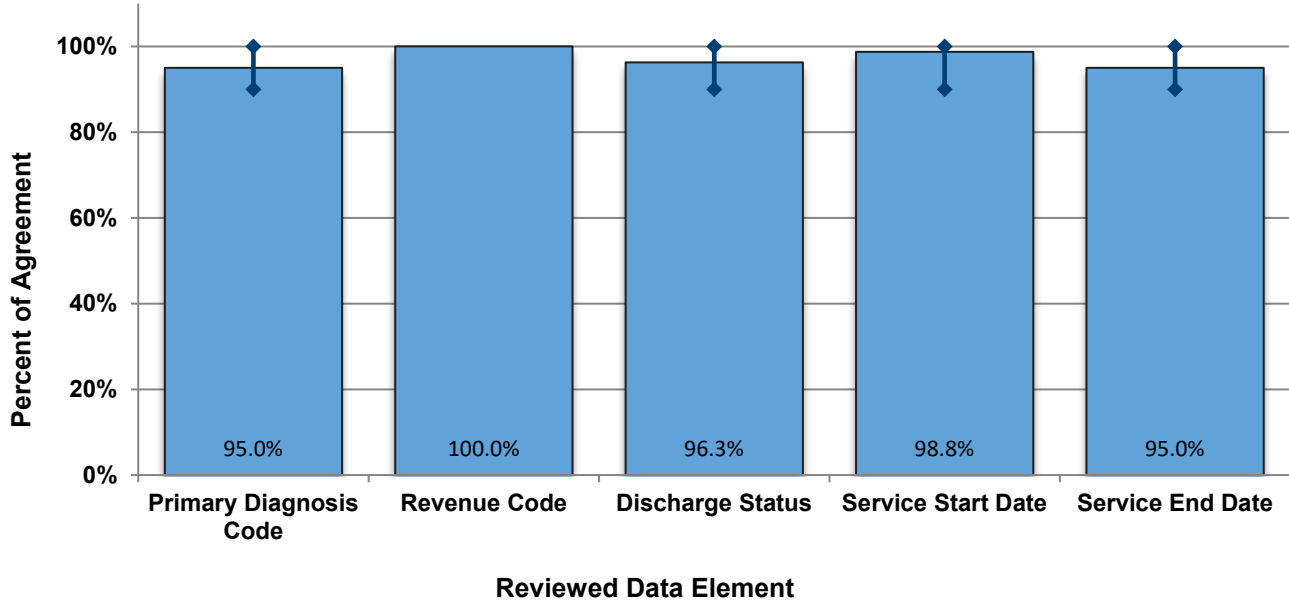
Note: The upper and lower diamonds represent the highest and lowest agreement rates among the RAEs and DHMP.

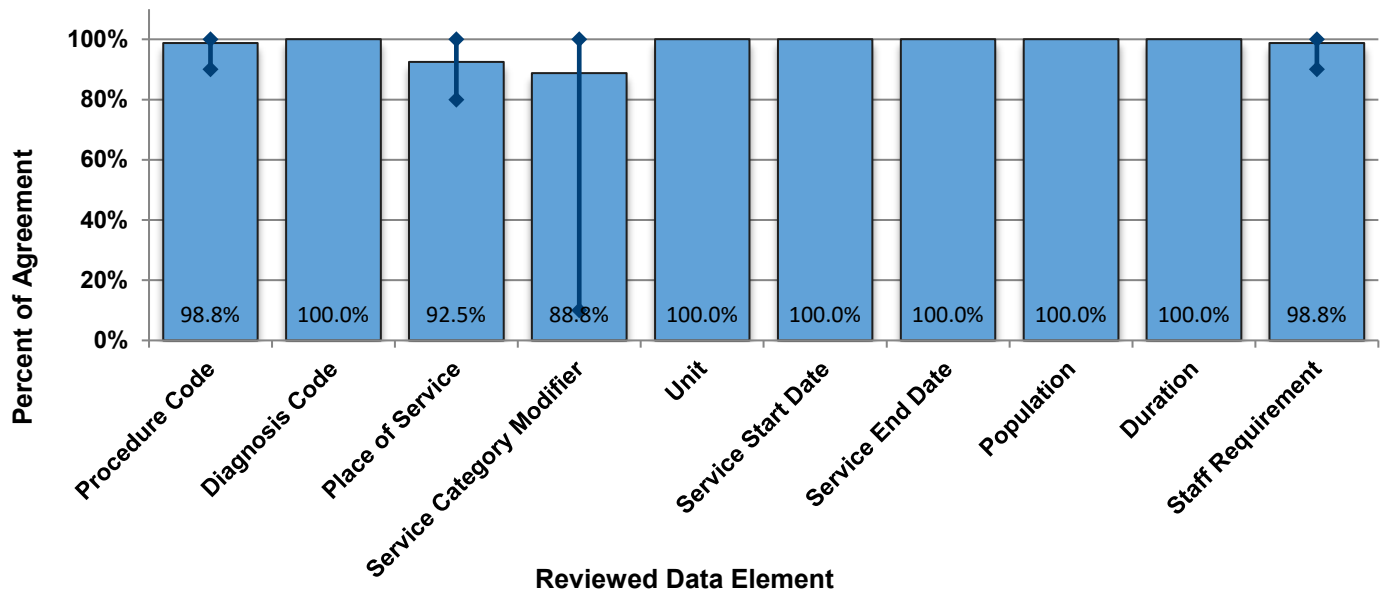## Field-Specific Agreement Rate

HSAG calculated aggregate agreement rates of at least 95.0 percent among all five of the validated data elements. The *Primary Diagnosis Code* and *Service End Date* data elements had the lowest aggregate agreement rates, each with agreement rates of 95.0 percent. For each of these data elements, the entity-specific rates ranged from 90.0 percent (four entities) to 100 percent (four entities). All entities had a 100 percent agreement rate for the *Revenue Code* data element, whereas five entities had a 100 percent agreement rate for *Discharge Status* and seven entities had a 100 percent agreement rate for *Service Start Date*. For all entities where there was not a 100 percent agreement rate between the HSAG reviewers and the RAEs' and DHMP's reviewers, there was a 90.0 percent agreement rate.

Over-Read of Sample Cases: Psychotherapy Services

Overall Agreement Rate

Figure 2-2 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 100 percent, the *Diagnosis Code, Unit, Service Start Date, Service End Date, Population,* and *Duration* data elements had the highest rates of agreement between the RAEs' and DHMP's reviewers and HSAG's reviewers. The remaining validated data elements had an agreement rate that ranged from 88.8 percent (*Service Category Modifier*) to 98.8 percent (*Procedure Code* and *Staff Requirement*). Overall, HSAG's reviewers agreed with the RAEs' and DHMP's reviewers for all 10 data elements within a sampled case for 65 of the 80 over-read cases (81.3 percent).

Figure 2-2—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 88.8 percent among all 10 of the validated data elements. For both *Procedure Code* and *Staff Requirement* data elements, all entities had a 100 percent agreement rate, except for DHMP and RAE 7, which each had a 90.0 percent agreement rate, respectively. Half of the entities (RAE 1, RAE 4, RAE 5, and RAE 6) had a 100 percent agreement rate for *Place of Service* data element, whereas RAE 7 and DHMP each had a 90.0 percent agreement rate, and RAE 2 and RAE 3 each had an 80.0 percent agreement rate. For the *Service Category Modifier* data element, all entities had an agreement rate of 100 percent with the HSAG reviewer's, except for RAE 4, where HSAG's reviewers agreed with the RAE's reviewers 10.0 percent of the time.

Over-Read of Sample Cases: Residential Services

Overall Agreement Rate

Figure 2-3 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).

Figure 2-3—Aggregate Percent Agreement Between HSAG's Over-Read and the RAEs' and DHMP's EDV Findings by Data Element for Residential Services
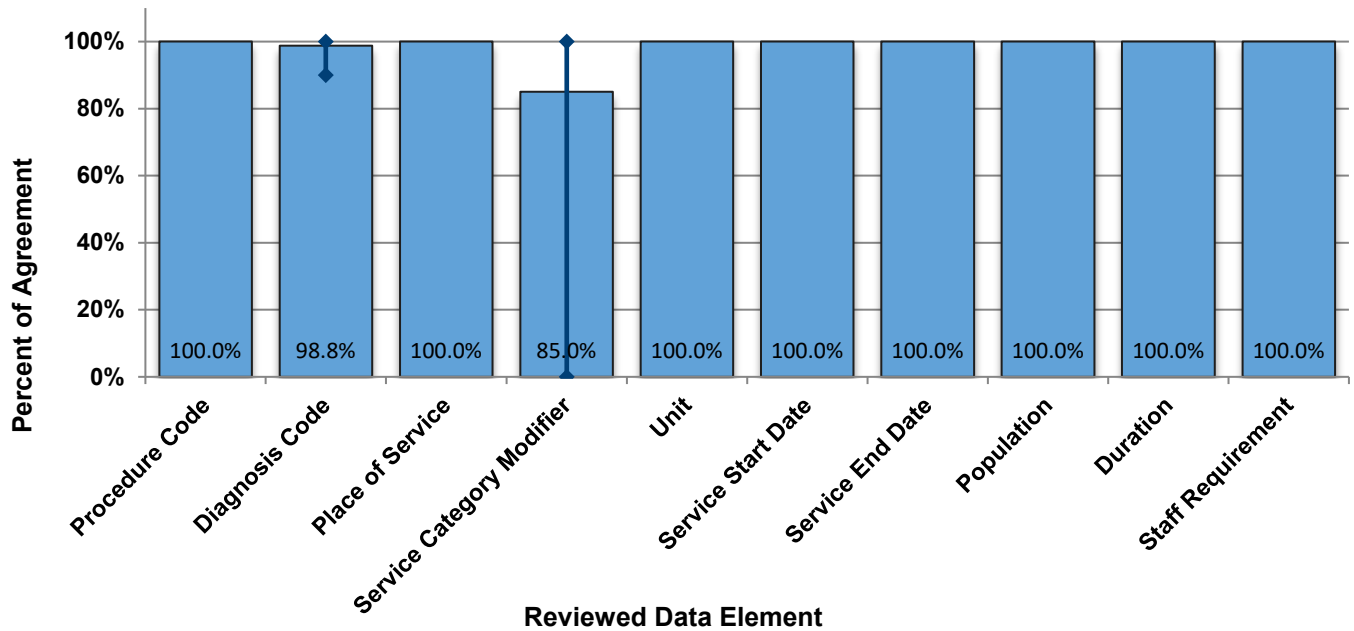
Note: The upper and lower diamonds represent the highest and lowest agreement rates among the RAEs and DHMP.

At 100 percent, the *Procedure Code*, *Place of Service, Unit, Service Start Date, Service End Date, Population, Duration,* and *Staff Requirement* data elements had the highest rates of agreement between the RAEs' and DHMP's reviewers and HSAG's reviewers. The remaining two validated data elements, *Diagnosis Code* and *Service Category Modifier*, had an agreement rate of 98.8 percent and 85.0 percent, respectively. Overall, HSAG's reviewers agreed with the RAEs' and DHMP's EDV results for all 10 data elements within a sampled case for 67 of the 80 cases (83.8 percent).

Field-Specific Agreement Rate

HSAG calculated aggregate agreement rates of at least 85.0 percent among all 10 validated data elements. For the *Diagnosis Code* data element, all entities had an agreement rate of 100 percent with the HSAG reviewers, except for DHMP, where HSAG's reviewers agreed with DHMP's reviewers 90.0 percent of the time. For the *Service Category Modifier* data element, all entities had an agreement rate of 100 percent, except for RAE 3 and RAE 7, where HSAG's reviewers agreed with the RAEs' reviewers 90.0 percent of the time, and for RAE 4, where HSAG's reviewers agreed with the RAE's reviewers 0.0 percent of the time.

Conclusions

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 for RAE 1 only. 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. While the Department's sampling methodology noted that it required supplemental documentation to support the validity of any data not adhering to the data layout specifications, no details were provided for the final sample frame inclusion criteria. 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.

Of the 240 over-read cases, HSAG's reviewers agreed with the RAEs' and DHMP's reviewers determinations for all data elements for 200 of the 240 over-read cases (i.e., an all-element agreement rate of 83.3 percent) and disagreed with RAE and DHMP reviewers' determinations for only one data element in 38 of the 40 cases that contained one or more data element disagreements.[3-1] Of the cases that were not in complete agreement between the RAEs' and DHMP's reviewers and HSAG's reviewers, 38 of the 40 over-read cases only had one disagreement element. For the cases where there was one disagreement among the validated data elements for Inpatient Services, the *Primary Diagnosis Code* and *Service End Date* had the highest number of disagreements among the RAEs and DHMP. For both Psychotherapy Services and Residential Services cases where there was one disagreement, the *Service Category Modifier* had the largest number of disagreements. The remaining two cases where there was more than one data element in disagreement between the RAEs' and DHMP's reviewers were both Psychotherapy Services cases. One case each for RAE 7 and DHMP had two data elements in disagreement.

When examining all service categories combined, the percentage of cases with all elements in agreement ranged from 86.7 percent for DHMP to 33.3 percent for RAE 4. The low all-element agreement rate for RAE 4 was due to the *Service Category Modifier* data element. When examining the all-element agreement rate across entities within service categories, the all-element agreement rates also varied. For Inpatient Services, the all-element agreement rate for all entities was 85.0 percent, with a range from 80.0 percent (RAE 1, RAE 3, RAE 6, and DHMP) to 90.0 percent (RAE 2, RAE 4, RAE 5, and RAE 7). For Psychotherapy Services, the all-element agreement rate for all entities was 81.3 percent, with a range from 10.0 percent (RAE 4) to 100 percent (RAE 1, RAE 5, and RAE 6). Finally, for Residential

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[3-1] Disagreement instances exclude fields in which the RAE or DHMP recorded the correct codes found in the supporting documentation.

Services, the all-element agreement rate for all entities was 83.8 percent, with a range from 0.0 percent (RAE 4) to 100 percent (RAE 1, RAE 2, RAE 5, and RAE 6).

For Inpatient Services, HSAG's reviewers disagreed with the RAEs' and DHMP's reviewers the most for the *Primary Diagnosis Code* and *Service End Date* data elements. Both data elements had an agreement rate of 95.0 percent. The most common reason for HSAG's disagreement for *Primary Diagnosis Code* was due to the RAEs' and DHMP's reviewers indicating that the medical record did not support the encounter data, whereas HSAG's reviewers indicated that the encounter data did support the medical record. The reverse was true for the *Service End Date* data element, where the RAEs' and DHMP's reviewers indicated that the medical record did support the encounter data, whereas HSAG's reviewers indicated that the medical record did not support the encounter data.

For Psychotherapy Services and Residential Services, the most common reason for HSAG's disagreement was for the *Service Category Modifier* data element, which had an agreement rate of 88.8 percent and 85.0 percent, respectively. For all instances, the entities' reviewers indicated that the medical record did not support the encounter data, whereas HSAG's reviewers indicated that the medical record did support the encounter data.

Across all service categories, the HSAG over-read results were high, with a 100 percent agreement rate for one of the five validated data elements for Inpatient Services cases, six of the 10 validated data elements for Psychotherapy Services, and eight of the 10 validated data elements for Residential Services. For those data elements where HSAG did not agree with the RAEs' and DHMP's reviewers 100 percent of the time, HSAG agreed with the reviewers greater than 90.0 percent of the time for all data elements, except for *Service Category Modifier* for both Psychotherapy Services and Residential Services cases.

In general, results from HSAG's FY 2022–2023 RAE 411 over-read suggest a high level of confidence that the RAEs' and DHMP's independent validation findings accurately reflect their encounter data quality. In comparison, the RAEs' and DHMP's self-reported service coding accuracy results reflected more than 80.0 percent agreement for all data elements across all service categories. In fact, the service coding accuracy results were greater than 95.0 percent for all data elements in Residential Services cases. 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 EDV study as a focused mechanism for evaluating quality improvement.

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 HPO 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.

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 2021–2022 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.

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 Uniform Service Coding Standards (USCS) manuals. 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, 2021, to June 30, 2022, stratified among three service categories.[A-1,A-2] 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

[A-1] 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.

[A-2] 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 January 2023; 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 2023. HSAG designed a web-based data collection tool and tool instructions in alignment with the guidelines and with the pertinent versions of the USCS manual.[A-3] 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 2023 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 USCS 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

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[A-3] Given the dates of service for encounters in this study, the guidelines permit the use of the following versions of the USCS manual: the July 2020 version covering dates of service from July 1 through December 31, 2020; the January 2021 version covering dates of service from January 1 through March 31, 2021; and the April 2021 version covering dates of service from April 1 through June 30, 2021. 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 USCS 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 USCS 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 2022–2023 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 1=Correct primary diagnosis code	X	1
2	Encounter Revenue Code	ENC_REV	0=No or insufficient documentation, incorrect revenue code 1=Correct revenue code	X	1
3	Encounter Discharge Status	ENC_DCSTAT	0=No or insufficient documentation, incorrect discharge status 1=Correct discharge status	X	1
4	Encounter Service Start Date	ENC_FDOS	0=No or insufficient documentation, incorrect service start date 1= Correct service start date	X	1
5	Encounter Service End Date	ENC_LDOS	0=No or insufficient documentation, incorrect service end date 1=Correct service start date	X	1
6	Documented Diagnosis Code	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	X	7
7	Documented Revenue Code	DOC_REV	Enter correct revenue code if present in supporting documentation Enter 'No Doc' if no or insufficient documentation of correct revenue code	X	4

	Data Element (Field)	Response Field Variable	Data Description	Format	Length
8	Documented Discharge Status	DOC_DCSTAT	Enter correct discharge status if present in supporting documentation Enter 'No Doc' if no or insufficient documentation of correct discharge status	X	8
9	Documented Service Start Date	DOC_FDOS	Start Date of Service in the documentation 'No Doc' if there is no documentation	MM/DD /YYYY	10
10	Documented Service End Date	DOC_LDOS	End Date of Service in the documentation 'No Doc' if there is no documentation	MM/DD /YYYY	10
11	E&M Guidelines Version	EM_VERS	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
12	Comments (conditionally required)	COMMENTS	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, "DOS not found in MR" • If a decision support tool or supplemental documentation was used, enter, "refer to document: <file name>" • 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" Comments are required to support the following scenarios: • To provide details regarding non-specific primary diagnosis codes • To provide details regarding agreement or 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

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 USCS, or does not comply with the service description in USCS (Note 4 below) 1=Yes, consistent with the minimum supporting documentation requirements and complies with USCS	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 USCS 1=Yes, complies with USCS 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 USCS 1=Yes, complies with USCS 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 USCS for the encounter procedure code 1=Yes, complies with USCS 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 USCS 1=Yes, complies with USCS 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 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 1=Yes, consistent with the supporting documentation	X	1
8	Documented Population	DOC_POP	0=No documentation or not comply with USCS 1=Yes, complies with USCS	X	1
9	Documented Duration	DOC_DUR	0=No documentation or not comply with USCS 1=Yes, complies with USCS	X	1
10	Documented Staff Requirements	DOC_STAFF	0=No documentation or not comply with USCS, if procedure code is included in USCS 1=Yes, complies with USCS (Note 10 below)	X	1

	Data Element (Field)	Response Field Variable	Data Description	Format	Length
11	Documented Procedure Code	DOC_PROC	Procedure code in the supporting documentation '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 'No Doc' if there is no document or unable to determine the associated E&M procedure code based on documentation 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 *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 'No Doc' if there is no documentation	X	7
14	Documented Place of Service (POS)	DOC_POS	Place of Service in the supporting documentation 'No Doc' if there is no documentation	X	2
15	Documented Units	DOC_UNITS	Maximum of the units complying with USCS, if procedure code is included in USCS 'No Doc' if there is no document	X	Integer
16	Documented Service Start Date	DOC_FDOS	Start Date of Service in the documentation '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 'No Doc' if there is no documentation	MM/DD /YYYY	10
18	USCS Version Used	USCS_VERS	1=July 2021 Version, covering dates of service from July 1, 2021 through September 30, 2021 2=October 2021 Version, covering dates of service from October 1, 2021 through December 31, 2021 3=January 2022 Version, effective January 1, 2022	X	1
19	Comments (conditionally required)	COMMENTS	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	X	Flexible

Data Element (Field)	Response Field Variable	Data Description	Format	Length
		were scored "0", enter, "DOS not found in MR" • If a decision support tool or supplemental documentation was used, enter, "refer to document: <file name>" • 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 Department by the RAE and DHMP. 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 USCS 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 USCS 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 USCS Manual as service content.

    a. Beginning in March 2020, the Department approved the use of telephone or live chat to meet technical documentation requirements for the mode of service delivery as a result of the coronavirus disease 2019 (COVID-19) public health emergency. As the emergency order remained in effect for the FY 2021–2022 measurement period, include the following note in COMMENTS to identify cases in which the delivery mode requirement was met under the HCPF guidance: "Refer to document: HCPF Approval Telephone Mode 3.20.20."

    b. Telemedicine Services standard requirements should be considered when reviewing whether documentation supports these services. In the "Telemedicine Services" section of the USCS Manual, item 4 states, "Providers must document the member's consent, either verbal or written, to receive telemedicine services." As such, participation in telemedicine services implies consent but should be specified in the chart notes.

    c. The April 2021 USCS Manual lists one Place of Service code 02 for telemedicine. The January 2022 USCS Manual added an additional Place of Service Code 10 and defines that services provided via telehealth or telemedicine should be indicated by Place of Service 02—"Telehealth Provided Other than in Member's Home" or Place of Service 10—"Telehealth Provided in Member's Home." As such, for dates of service beginning in January 2022, telehealth

documentation should support and identify the location (i.e., Place of Service) for services rendered.

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 USCS 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 and DHMP 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 USCS 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 USCS 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 USCS 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.

Figure B-1 through Figure B-3 present aggregate results from HSAG's 30-case over-read of RAE 1'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 1's EDV results and HSAG's over-read results, and 0.0 percent represents complete disagreement. Across 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 1's Inpatient Services EDV results for 100 percent of the 10 over-read cases for three of the five validated data elements. At 100 percent, the *Primary Diagnosis Code, Revenue Code*, and *Discharge Status* data elements had the highest rates of agreement between RAE 1's EDV results and HSAG's over-read results. The remaining two validated data elements, *Service Start Date* and *Service End Date*, each had agreement rates of 90.0 percent.
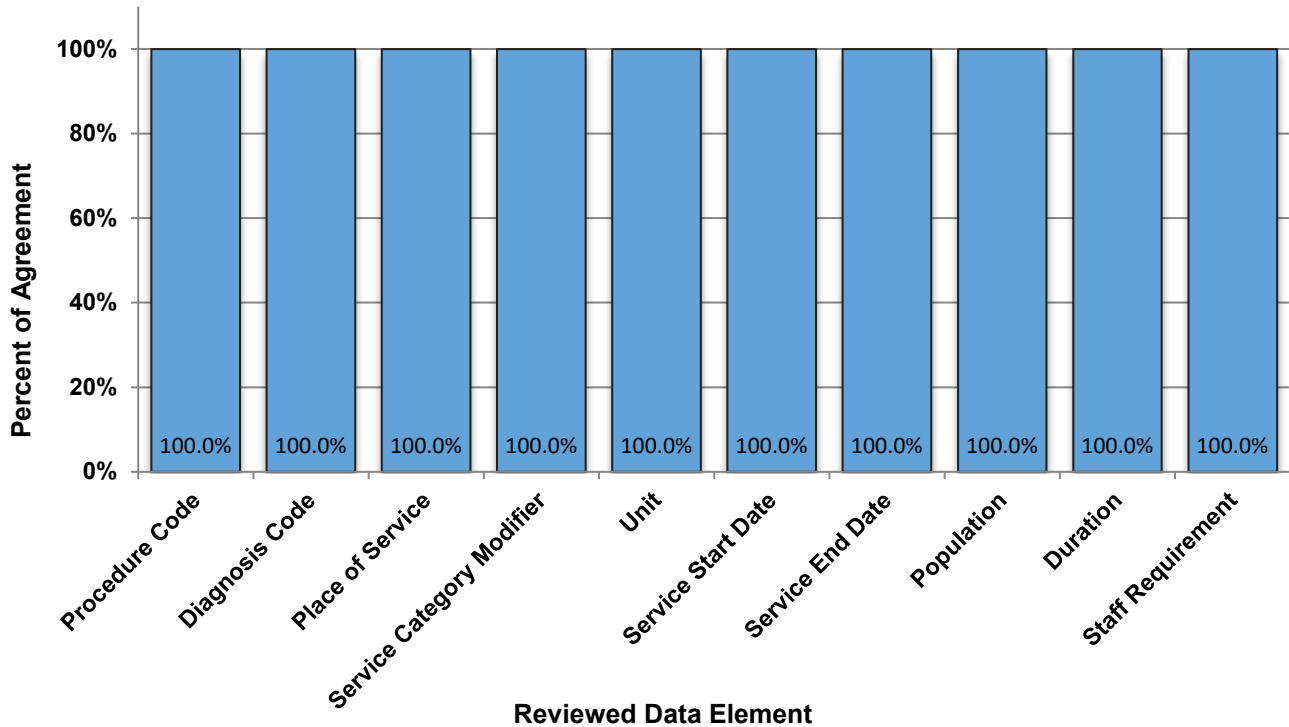
Figure B-1—Aggregate Percent Agreement Between HSAG's Over-Read and RAE 1's EDV Findings by Data Element for Inpatient Services
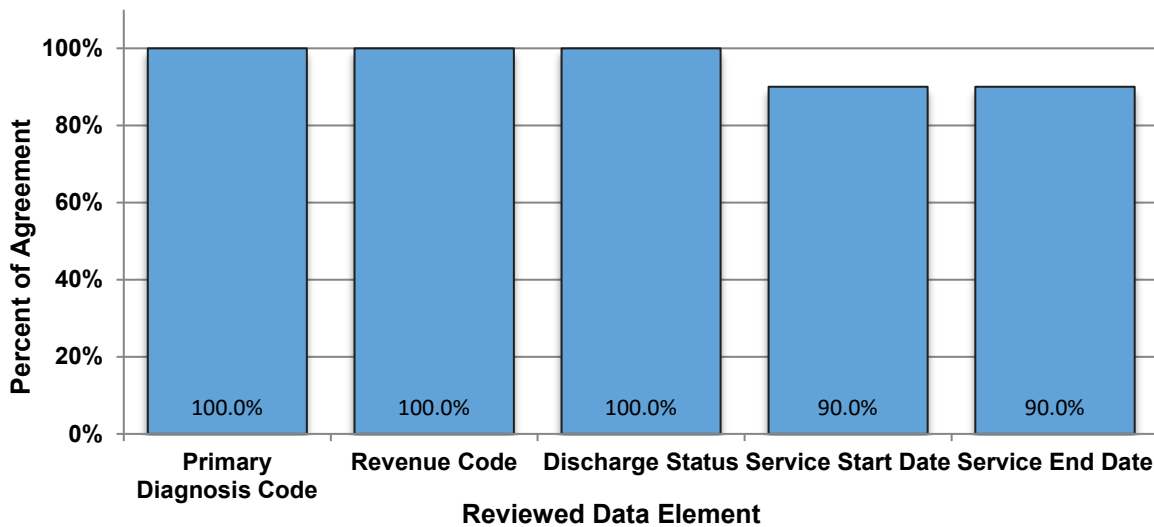
Psychotherapy Services

Figure B-2 shows that HSAG's reviewers agreed with RAE 1's Psychotherapy Services EDV results for 100 percent of the 10 over-read cases for all 10 validated data elements.

Figure B-2—Aggregate Percent Agreement Between HSAG's Over-Read and RAE 1's EDV Findings by Data Element for Psychotherapy Services

Residential Services

Figure B-3 shows that HSAG's reviewers agreed with RAE 1's Residential Services EDV results for 100 percent of the 10 over-read cases for all 10 validated data elements.

Figure B-3—Aggregate Percent Agreement Between HSAG's Over-Read and RAE 1's EDV Findings by Data Element for Residential Services