COLORADO

Department of Health Care Policy & Financing

FY 2019–2020 Regional Accountable Entity 411 Encounter Data Validation Over-Read Report for RAE 2: Northeast Health Partners

June 2020

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

HSAG HEALTH SERVICES ADVISORY GROUP

Contents

FY 2019–2020 RAE 411 Encounter Data Validation Over-Read Report

Background

In fiscal year (FY) 2019–2020, the Colorado Department of Health Care Policy and Financing (the Department) contracted Health Services Advisory Group, Inc. (HSAG) to conduct an encounter data validation (EDV) study for behavioral health (BH) encounters submitted to the Department from each of the following Regional Accountable Entity (RAE) regions contracted with the Department during FY 2019–2020:

- RAE 1: Rocky Mountain Health Plans (RMHP)
- RAE 2: Northeast Health Partners, LLC (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)

EDV is an optional external quality review (EQR) activity under the Centers for Medicare & Medicaid Services (CMS) regulations released in October 2019.[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) is 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]

The Department developed the *Annual RAE BH Encounter Data Quality Review Guidelines* (guidelines) to support the RAEs' BH EDVs, including a specific timeline and file format requirements to guide each RAE in preparing its 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 region's BH encounter flat files, and the RAEs were required to conduct medical record review for the sampled cases, evaluating the quality of the BH encounter data submitted to the Department.

The guidelines also stipulate that the Department's external quality review organization (EQRO), HSAG, will conduct an independent evaluation of the RAEs' medical record review results to verify the quality of each RAE's EDV results. Following completion of their medical record reviews, the RAEs submit their EDV results (i.e., Service Coding Accuracy results) as part of an Encounter Data Quality

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

[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 over-read the BHOs' medical record review results.

Report to the Department and HSAG. HSAG overreads a random sample of the validated cases and reports on validation agreement with the RAEs' EDV results.

In contracting with HSAG in FY 2019–2020, the Department requested the following tasks:

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

Methodology

HSAG's independent EDV consisted primarily of an assessment of the RAEs' 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' 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 supplied HSAG with an EDV response file containing the RAE's internal EDV results for the 411 cases sampled by the Department. Prior to receiving the RAEs' 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). The evaluation process included the following steps:

1. 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, 2018, and June 30, 2019, stratified among three service categories.[3,4] The Department selected 137 encounter lines for each RAE from each of the following service categories:

- Prevention/Early Intervention Services:
  - Procedure code modifier 1 is "HT," or

[3] In the event that a RAE'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.

[4] 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.

  - Procedure code is "H0023" and procedure code modifier 1 is "HE" and procedure code modifier 2 is "HT"
- Club House or Drop-In Center Services:
  - Procedure code modifier 1 is "HB or "HQ," or
  - Procedure code is "H0023" and procedure code modifier 1 is "HE" and procedure code modifier 2 is "HQ" or "HB"
- Residential Services:
  - All services with procedure codes "H0017," "H0018," or "H0019"

The Department submitted the 411-case sample lists to the RAEs and HSAG in January 2020; each RAE 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.

2. EDV Tool Development

Each RAE submitted its response file containing internal EDV results for the 411 sampled cases to HSAG in March 2020. 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.[5] HSAG pre-populated encounter data values and the RAEs' EDV results using a control file containing select fields from the Department's encounter data flat file and the RAEs' 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 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' 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.

3. HSAG's Over-Read Process

HSAG evaluated the accuracy of the RAEs' EDV findings in April 2020 and entered all over-read results into the web-based EDV tool. Specifically, HSAG's reviewers evaluated the RAEs' 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' encounter data, supporting medical record documentation, and the version(s) of the USCS manual used by the RAEs during their EDV. HSAG's reviewers evaluated whether the RAE's EDV determinations for each encounter were

[5] Given the dates of service for encounters in this study, the guidelines permit the use of the July 2018 version, the January 2019 version, or the January 2019 version with the 2019 Addendum 1 of the USCS manual. All versions are available from the Department at https://www.colorado.gov/pacific/hcpf/mental-health-rate-reform-0.

supported by the medical record and 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' EDV responses were accurate based on HSAG's review of the supporting BH documentation submitted by the RAEs.

HSAG trained two nurse reviewers to conduct the over-read, with two 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 EDV response with respect to the accuracy of the data submitted by the provider. If the HSAG reviewer agreed with the RAE's EDV response, a response of "agree" was selected in the tool. If the HSAG reviewer disagreed with the RAE's EDV response, a response of "disagree" was selected in the tool. In the event of a disagreement with the RAE'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 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 re-training, including abstraction of additional test cases.

During the over-read period, HSAG conducted an ongoing IRR assessment by randomly selecting a minimum of 10 percent of cases per 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 re-training of the reviewer(s).

4. Analysis Process

Following completion of the over-read, the HSAG analyst 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. The HSAG analyst 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. Statewide and RAE-specific results were tabulated by service category for data elements validated by the RAEs and overread by HSAG. Analysis results were independently validated by a second HSAG analyst.

Results

Desk Review

Sampling Methodology

The Department provided HSAG with a brief description of the process used to generate a random sample of BH encounters for each RAE. The Department provided descriptions of the sample selection process and the complete, RAE-specific source code used to identify and select BH encounters for each service category. The documentation was sufficiently detailed to demonstrate the Department's data selection protocol. The Department described both the service category criteria used to stratify the sample and how BH encounters were randomly selected from the processed flat files. However, the Department supplied no details of how the RAEs' flat files were loaded or processed prior to generating the sample frame for the 411 EDV cases. The Department included a sample of the SQL code that demonstrated the procedures for randomly selecting 137 encounters with dates of service between July 1, 2018, and June 30, 2019, from 21 previously created RAE- and service category-specific data subsets (i.e., for each RAE, the Department created three service category-specific data subsets). The Department randomly selected encounters from the RAE- and service category-specific datasets at the encounter-line level. When the minimum number of cases were not available in the sample frame, the Department included additional BH encounter lines for members who may have already been included in the sample. This approach could produce a sample that included multiple encounter lines for the same member, and such results were identified in two scenarios for the Club House or Drop-In Center Services: RAE 4 had 127 distinct members with 137 distinct claim numbers, and RAE 7 had 136 distinct members with 137 distinct claim numbers.

The Department's sampling methodology did not document the amount of time allowed between the end of the study period and the time at which BH encounters were selected for review (i.e., the run-out period). The data run-out period allows time for corrections to be applied to the original encounter record, minimizing the likelihood of validating encounters that may be voided or adjusted after the sample is selected.

RAEs' Internal EDV Methodology

The Department required each RAE to submit an Encounter Data Quality Report containing information on the RAE's data submission quality throughout the measurement period and service coding accuracy among the 411 encounters validated during the RAE's internal EDV. To help provide context for each RAE's service coding accuracy results, the Department requested that each RAE include its internal EDV methodology documentation as a component of the Encounter Data Quality Report. HSAG's review of the RAEs' internal EDV methodology documentation verified the presence of:

- A description of the coding guidelines referenced for the RAE's EDV process
- A description of the RAE's medical record procurement and abstraction process
- A description of the RAE's EDV analysis and reporting process

HSAG identified the following key findings from the RAEs' internal EDV methodology documentation:

- Similarities existed among the RAEs' descriptions of their internal tool development and EDV processes. Five RAEs constructed an EDV tool using MS Excel, while RAE 2 used an MS Access database, and RAE 4 used a web-based tool. Except for RAE 1, all RAEs described troubleshooting and correction processes for their tools, as well as any calculations built into the tools to facilitate accurate assessment. All RAEs listed the names and credentials of internal staff members responsible for EDV training and oversight.
- All RAEs described the development of their EDV tools, reviewer training, reviewers' professional experience, and any reliability testing. All RAEs reported conducting their EDV with at least two reviewers. All RAEs also provided information on post-EDV IRR rates, and RAE 6 and RAE 7 described corrective actions required when a reviewer's IRR rate was lower than an established threshold that varied by RAE.
- With the exception of RAE 1, all RAEs described steps taken to review and validate EDV results and provided a description of its specific EDV instructions.
- Except RAE 1, all RAEs described implementing corrective action plans (CAPs), training, or education for low-scoring providers so as to address deficiencies identified during the EDV, with RAE regions 4, 6, and 7 describing it as a process improvement opportunity based on the FY 2019–2020 EDV process.

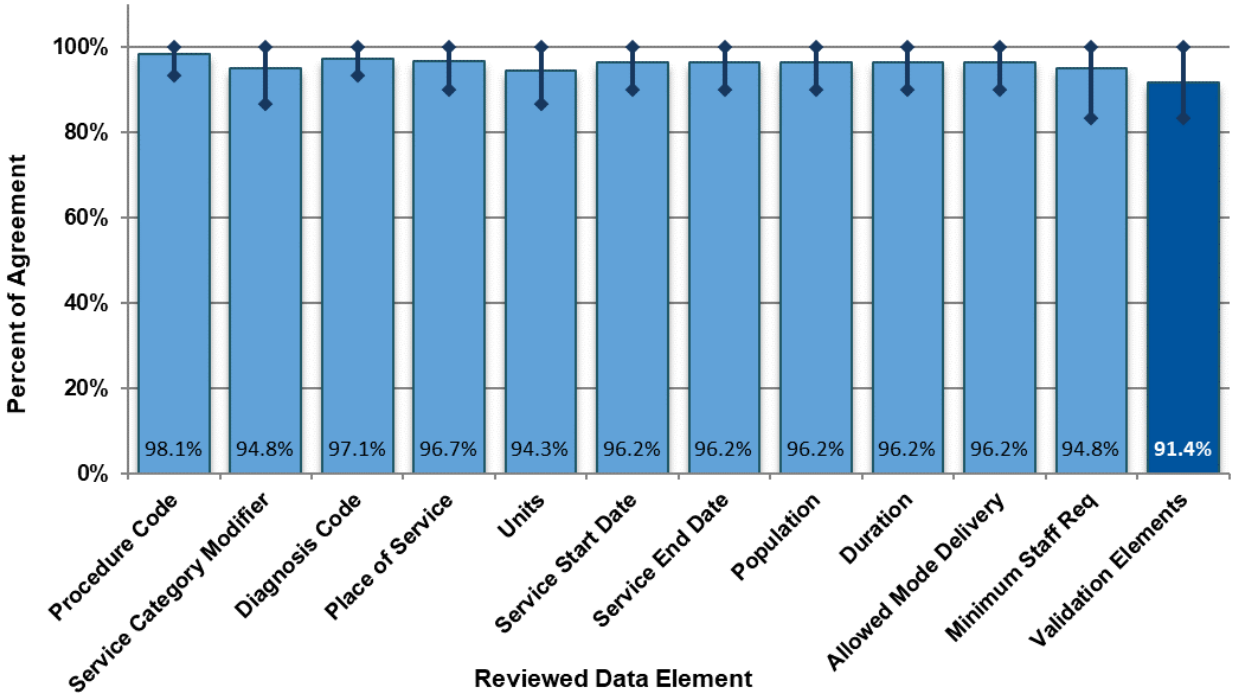
Over-Read of Sample Cases: All Service Types

Overall Agreement Rate

Each RAE 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 B.

Following HSAG's over-read, HSAG tabulated agreement results that could range from 0.0 percent to 100.0 percent, where 100.0 percent represents perfect agreement between the RAE's EDV results and HSAG's over-read results, and 0.0 percent represents complete disagreement. To assess the impact of HSAG's over-read results, the aggregate report submitted to the Department includes an appendix that presents internal EDV results submitted in each RAE's Encounter Data Quality Report. Based on each RAE's results, HSAG also calculated an aggregate validation rate for each EDV element and repeated these calculations for each of the three service category strata. The key validation elements included the *Procedure Code*, *Diagnosis Code*, and *Units* data elements. To determine the percentage of cases in agreement for key validation elements, HSAG identified cases in which the over-read results agreed with the RAE's EDV findings for a composite measure comprised of three data elements (*Procedure Code*, *Diagnosis Code*, and *Units*); this result is identified in Figure 1 and subsequent figures as *Validation Elements*. Figure 1 presents the aggregate results from HSAG's over-read of the 210 cases sampled for assessment (i.e., 30 cases from each RAE).

Figure 1—Aggregated Percent of Agreement Between HSAG's Over-Read and the RAEs' EDV Findings by Data Element for All Service Types



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

Figure 1 illustrates HSAG's agreement with the RAEs' EDV results for a composite of selected data elements (*Procedure Code*, *Diagnosis Code*, and *Units*) as 91.4 percent of the 210 over-read cases (*Validation Elements*, 192 of 210 cases). The agreement rate for *Validation Elements* by RAE ranged from 83.3 percent to 100.0 percent. Overall, HSAG's reviewers agreed with the RAEs' EDV results for all 11 data elements within a sampled case for 188 of the 210 cases (89.5 percent).

Field-Specific Agreement Rate

All but one of the validated data elements achieved aggregate agreement rates of at least 94.3 percent. At 94.3 percent, *Units* had the lowest aggregate agreement rate for any data element, and RAE-specific agreement rates ranged from 83.3 percent to 100.0 percent. Aggregate agreement rates did not reach 100.0 percent for any data element. Results for *Procedure Code* had the highest aggregate agreement rate (98.1 percent), and five RAE regions had 100.0 percent agreement for *Procedure Code*.

In addition to the results presented in this report, HSAG has provided the Department with supplemental study materials detailing, by RAE, the nature of the disagreement for any data element about which HSAG's reviewers disagreed with the RAE's EDV determination. This MS Excel workbook, or "Case-Level Disagreement List," is used as a supplemental reference for the report.

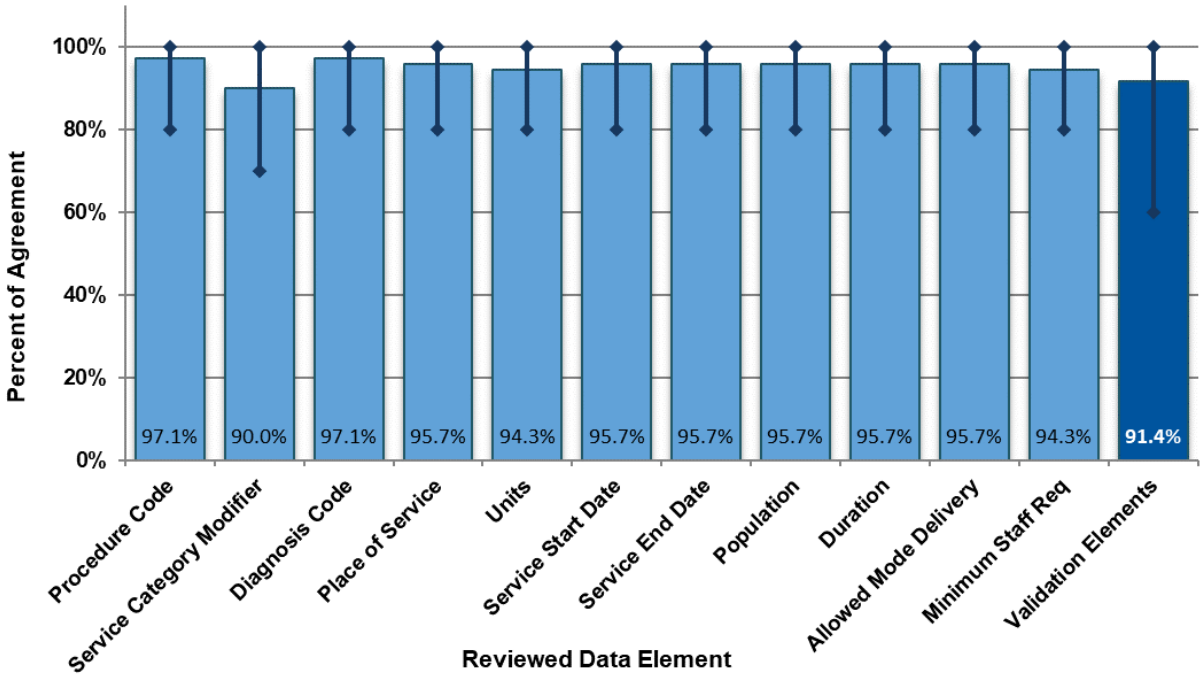
The remainder of this section details HSAG's over-read findings by service category. For reference, Appendix C presents, by service category, HSAG's over-read results for RAE 2.

Over-Read of Sample Cases: Prevention/Early Intervention Services

Overall Agreement Rate

Figure 2 presents the aggregate results from HSAG's over-read of the 70 cases sampled from Prevention/Early Intervention Services encounters (i.e., 10 cases per RAE), including the *Validation Elements* composite measure comprised of the *Procedure Code*, *Diagnosis Code*, and *Units* data elements.

Figure 2—Aggregated Percent of Agreement Between HSAG's Over-Read and the RAEs' EDV Findings by Data Element for Prevention/Early Intervention Services



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

Figure 2 illustrates HSAG's agreement with the RAEs' EDV results for a composite measure, *Validation Elements*, as 91.4 percent of the 70 over-read Prevention/Early Intervention Services cases (64 of 70 cases). The agreement rate for *Validation Elements* by RAE ranged from 60.0 to 100.0 percent; one RAE had four individual cases in disagreement for one or more of the three data elements in the *Validation Elements* composite measure (6 of 10 cases, 60.0 percent). Overall, HSAG's reviewers agreed with the RAEs' EDV results for all 11 data elements within a sampled case (i.e., "complete agreement") for 61 of the 70 cases (87.1 percent).

Field-Specific Agreement Rate

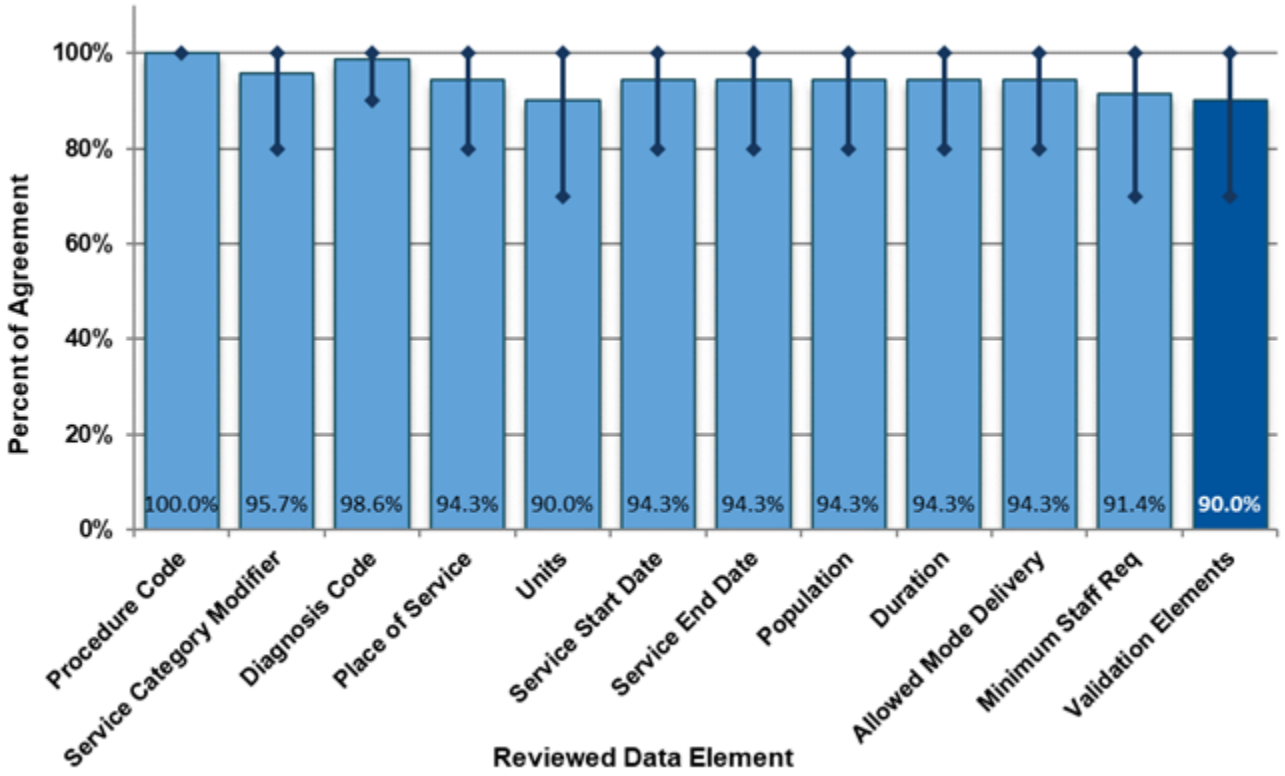
All but one of the validated data elements achieved aggregate agreement rates of at least 94.3 percent; the lowest aggregate rate was observed for the *Service Category Modifier* data element (90.0 percent). Three of seven RAE regions had *Service Category Modifier* agreement rates at or below 90.0 percent, while the remaining RAE regions had rates of 100.0 percent.

Over-Read of Sample Cases: Club House or Drop-In Center Services

Overall Agreement Rate

Figure 3 presents the aggregate results from HSAG's over-read of the 70 cases sampled from Club House or Drop-in Center Services encounters (i.e., 10 cases per RAE), including the *Validation Elements* composite measure comprised of the *Procedure Code*, *Diagnosis Code*, and *Units* data elements.

Figure 3—Aggregated Percent of Agreement Between HSAG's Over-Read and the RAEs' EDV Findings by Data Element for Club House or Drop-In Center Services



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

Figure 3 illustrates HSAG's agreement with the RAEs' EDV results for a composite measure, *Validation Elements*, as 90.0 percent of the 70 over-read Club House or Drop-In Center Services cases (63 of 70 cases). The agreement rate for *Validation Elements* by RAE ranged from 70.0 to 100.0 percent, with three RAE

regions having rates at or below 80.0 percent. Low aggregate *Units* agreement was the most significant contributor to the lower agreement rate for *Validation Elements*. Overall, HSAG's reviewers agreed with the RAEs' EDV results for all 11 data elements within a sampled case for 62 of the 70 cases (88.6 percent).

Field-Specific Agreement Rate

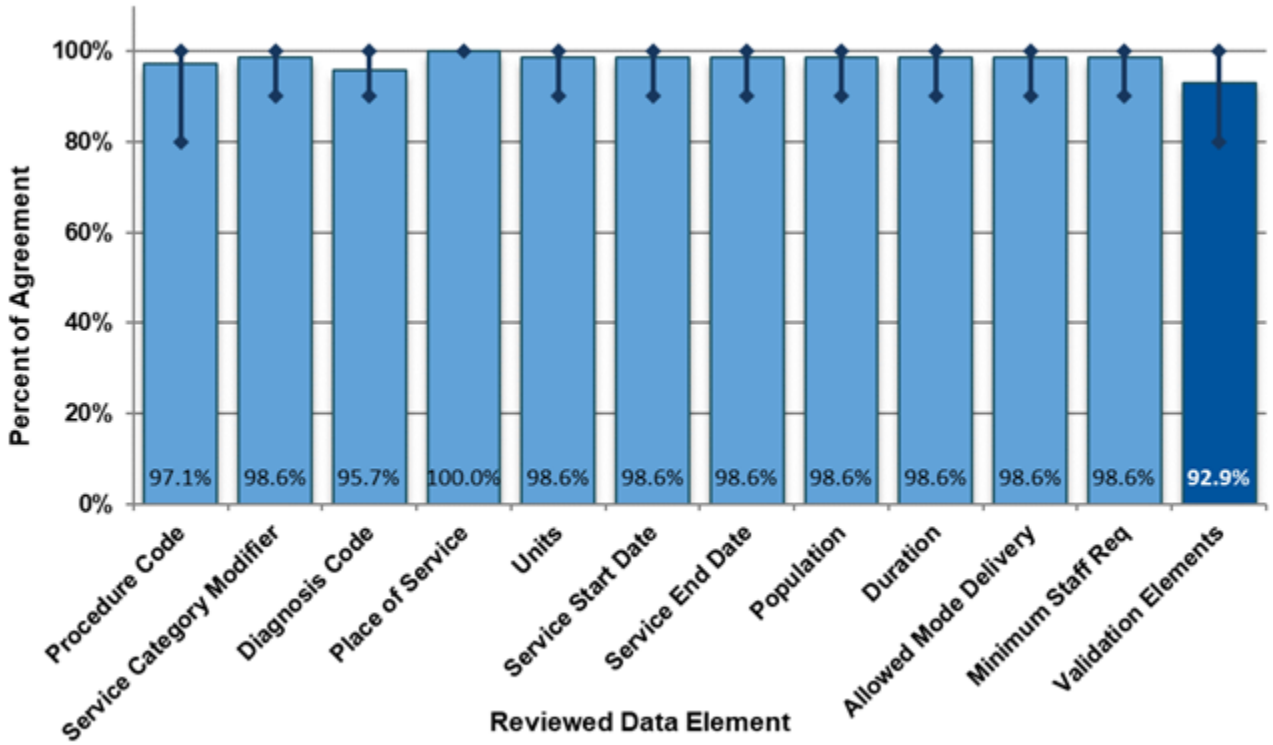
All but one of the validated data elements achieved aggregate agreement rates of at least 91.4 percent; the lowest aggregate rate was observed for the *Units* data element at 90.0 percent. Three RAE regions had agreement rates at or below 80.0 percent, while the remaining RAE region had an agreement rate of 100.0 percent.

Over-Read of Sample Cases: Residential Services

Overall Agreement Rate

Figure 4 presents the aggregate results from HSAG's over-read of the 70 cases sampled from Residential Services encounters (i.e., 10 cases per RAE), including the *Validation Elements* composite measure comprised of the *Procedure Code*, *Diagnosis Code*, and *Units* data elements.

Figure 4—Aggregated Percent of Agreement Between HSAG's Over-Read and the RAEs' EDV Findings by Data Element for Residential Services



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

Figure 4 illustrates HSAG's agreement with the RAEs' EDV results for a composite measure, *Validation Elements*, as 92.9 percent of the 70 over-read Residential Services cases (65 of 70 cases). The agreement rate for *Validation Elements* by RAE ranged from 80.0 to 100.0 percent, with one RAE region having a rate for one data element at 80.0 percent. Overall, HSAG's reviewers agreed with the RAEs' EDV results for all 11 data elements within a sampled case for 65 of the 70 cases (92.9 percent).

Field-Specific Agreement Rate

All but one of the validated data elements achieved aggregate agreement rates of at least 97.1 percent; the lowest aggregate rate was observed for the *Diagnosis Code* data element at 95.7 percent.

Conclusions

HSAG's desk review of the Department's sampling methodology and sample selection logic considered two important factors: the inclusion of final, paid professional encounters specific to the study time frame and encounter data compliance with the classification logic for the assessed service categories. The submitted sampling methodology document did not include all sampling frame construction details (e.g., the process for removing voided or adjudicated encounters from the sample frame). However, the sampling methodology detailed how the sample frame was constructed for each service category and RAE. The Department also provided no details regarding a run-out interval between the study measurement period and the date on which the encounters were compiled for sample generation. Depending on the Department's data collection and storage processes, the length of a run-out interval prior to sampling could limit the encounters included in the study, biasing the sample toward encounters for services occurring earlier in the study period.

Of the 210 over-read cases, HSAG's reviewers agreed with the RAE reviewers' determinations for all 11 data elements for 188 cases (i.e., all-element agreement rate of 89.5 percent) and disagreed with RAE reviewers' determinations for only one the of 11 elements for an additional 11 cases (5.2 percent). All-element agreement rates by service category were 87.1 percent for Prevention/Early Intervention, 88.6 percent for Club House or Drop-In Center Services, and 92.9 percent for Residential Services cases. All-element agreement rates by RAE ranged from 76.7 percent to 100.0 percent. Of the 22 cases without all-element agreement, eight cases had agreement between HSAG's reviewers and the RAEs' reviewers for three or fewer data elements. In general, these cases were in disagreement for two reasons: 1) a lack of supporting medical records; or 2) the encounter data did not contain a procedure code that aligned with the medical record documentation, rendering the entire encounter line invalid.

For 5.2 percent of overall cases, HSAG's reviewers had minimal disagreement with the RAEs' EDV determinations (i.e., disagreement with one or no cases) for the 11 data elements assessed. Of these cases, Residential Services represented one case, while Club House or Drop-In Center Services and Prevention/Early Intervention Services each represented five cases.

Of the cases in which HSAG's reviewers disagreed with the RAE's reviewer for one or more data elements, the most common data element disagreement reason was specified as an incorrect procedure code (i.e., the procedure code in the encounter data was not supported by the medical record

documentation). If the procedure code was incorrect, all subsequent data elements were generally incorrect because the USCS manuals are organized around procedure codes. Under this structure, the allowable units, place of service, duration, and other data elements are typically dependent on the procedure code, and a procedure code disagreement will render most other data elements incorrect. The second most common disagreement reason included instances in which HSAG's reviewers determined that the medical record documentation supported the encounter data, although the RAE's EDV result indicated that the medical record did not support the encounter data.

In general, when the key data elements were present in both the encounter data and the medical records, and were evaluated independently, the data elements were found to be accurate. Results from HSAG's FY 2019–2020 RAE over-read suggest a high level of confidence that the RAEs' independent validation findings accurately reflect their encounter data quality. Based on the over-read results, the RAEs generally performed well across all data elements, and the high level of agreement among HSAG's over-read results suggest that the RAEs' Service Coding Accuracy results presented in the aggregate report submitted to the Department, while low, are a reliable representation of the concordance between the BH encounter data and the corresponding medical record documentation. As a result, and given the resource intensive nature of medical record review studies, the RAEs should consider internal processes for ongoing encounter data monitoring and use the annual EDV study with the Department as a focused mechanism for measuring quality improvement.

Recommendations

FY 2019–2020 is the first year in which the RAEs have used a medical record review to validate BH encounter data under the Department's guidance. As such, the FY 2019–2020 RAE 411 study offers a baseline from which the RAEs and the Department can monitor quality improvement among the RAEs' BH encounter data. Based on the findings described in this report, HSAG offers the following recommendations to improve the overall quality of the BH encounter data, and the RAEs' abilities to conduct future EDVs.

- The RAEs' reviewers identified medical records that they determined were insufficient to meet validation standards (e.g., medical records that failed key documentation standards, such as missing providers' signatures and, therefore, should have failed the procedure code). The Department's Rates Section should work collaboratively with the Department's RAE contract administrators and the RAEs to identify best practices regarding provider education and training on the USCS manual and service coding accuracy.
- Overall, the RAEs' service coding accuracy results identified many cases with data values not supported by the medical record documentation, with variation by RAE and service category. To ensure that the RAEs have implemented quality improvement actions to address these encounter data deficiencies, HSAG recommends that the Department's contract administrator for each RAE:
  - Request copies of the RAEs' provider training and/or corrective action documentation.
  - Request copies of the RAEs' policies and procedures for monitoring providers' BH encounter data submissions.

– Collaborate with the Department's Rates Section to review the RAEs' encounter data quality documents and verify that RAEs 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.

Appendix A. Mental Health Encounter Data Flat File Specifications for RAEs

This table was copied from the *FY 2019–2020 Annual RAE Encounter Data Quality Review Guidelines Appendix I, Mental Health Encounter Data Specifications for RAEs*.

Data Element (Field)		Status*	Format	Length	Valid Value
0	Record No *This field was added by the Department during the 411 EDV sampling process and contained a number between 001 and 411.*	R	X	Integer	Sequential Unique Row Identifier, excluded from the RAEs' data submissions.
1	Transaction Header	R	X	1	Encounter data
2	Transaction Date	R	X	8	Encounter data
3	Submitter Organization Name	R	X	Flexible	Encounter data
4	Submitter Contact Number	C	9	10	Encounter data
5	Billing Provider Name	R	X	Flexible	Encounter data
6	Billing Provider Identification	R	X	8	Encounter data
7	Client Last Name	C	X	Flexible	Encounter data
8	Client First Name	C	X	Flexible	Encounter data
9	Client Medicaid Identification	R	X	7	Encounter data
10	Client ZIP Code	R	X	Flexible	Encounter data
11	Client Date of Birth	C	X	8	Encounter data
12	Client Gender	C	X	1	Encounter data
13	Claim Number	R	X	Flexible	Encounter data
14	Claim Version	R	X	1	Encounter data
15	Primary ICD-9 or ICD-10 Diagnosis Code	R**	X	5	Encounter data
16	Second ICD-9 or ICD-10 Diagnosis Code	C	X	5	Encounter data
17	Third ICD-9 or ICD-10 Diagnosis Code	C	X	5	Encounter data
18	Fourth ICD-9 or ICD-10 Diagnosis Code	C	X	5	Encounter data
19	POS/Bill Type	R	X	2	Encounter data
20	Approved Amount	C	Number	Double	Encounter data
21	Paid Amount	C	Number	Double	Encounter data
22	Service Line Number	R	Number	Integer	Encounter data
23	Line Paid Amount	C	Number	Double	Encounter data
24	Procedure Code	R	X	5	Encounter data
25	Service/Program Category (Procedure Modifier 1)	R	X	2	Encounter data
26	Procedure Modifier 2	C	X	2	Encounter data
27	Procedure Modifier 3	C	X	2	Encounter data
28	Procedure Modifier 4	C	X	2	Encounter data
29	Procedure Description	C	X	Flexible	Encounter data
30	Revenue code	R	X	Flexible	Encounter data
31	Units	R	Number	Integer	Encounter data

Data Element (Field)		Status*	Format	Length	Valid Value
32	Service Start Date	R	X	8	Encounter data
33	Service End Date	C	X	8	Encounter data
34	Admission Date	C	X	8	Encounter data
35	Principal ICD-9 or ICD-10 Surgical Procedure Code	C	X	7	Encounter data
36	Secondary ICD-9 or ICD-10 Surgical Procedure Code	C	X	7	Encounter data
37	Discharge Status Code	C	X	2	Encounter data
38	RAE Name	R	X	Flexible	Encounter data
39	RAE Medicaid ID	R	X	8	Encounter data
40	FCLN	R	Number	Integer	Encounter data
41	Payment Date	R	X	8	Encounter data
42	Rendering Provider ID	R	X	Flexible	Encounter data
43	TPL Paid Amount	R	Number	Double	Encounter data
44	Attending Provider ID	R (for Institutional)	X	Flexible	Encounter data

* R=Required; C=Conditional
** A primary ICD-10 diagnosis code is required if the service occurs on October 1, 2015, or later.

Appendix B. Response Data Layout for RAEs' 411 EDV Results

This appendix was copied from the *FY 2019–2020 Annual RAE Encounter Data Quality Review Guidelines Appendix II*, including a table defining the *Response Data Layout for RAEs' 411 EDV Results*.

Data Element (Field)		Response Field Variable	Data Description	Format	Length
0	Record No	RECORD_NO	Sequential number for each of 411 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 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, comply and consistent	X	1
3	Encounter POS	ENC_POS	0=No documentation, or not consistent with the supporting documentation, or not comply with USCS 1=Yes, comply	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, comply	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, comply	X	1
6	Encounter Service Start Date	ENC_FDOS	0=Start date does not comply with the supporting documentation 1= Yes, comply	X	1
7	Encounter Service End Date	ENC_LDOS	0=End date does not comply with the supporting documentation 1=Yes, comply	X	1

Data Element (Field)		Response Field Variable	Data Description	Format	Length
8	Documented Population	DOC_POP	0=No documentation or not comply with USCS 1=Yes, comply	X	1
9	Documented Duration	DOC_DUR	0=No documentation or not comply with USCS 1=Yes, comply	X	1
10	Documented Allowed Mode Delivery	DOC_DELIV	0=No documentation or not comply with USCS 1=Yes, comply	X	1
11	Documented Staff Requirements	DOC_STAFF	0=No documentation or not comply with USCS, if procedure code is included in USCS 1=Yes, comply	X	1
12	Documented Procedure Code	DOC_PROC	Procedure code in the supporting documentation 'NA' if there is no document or unable to determine service based on documentation	X	5
13	Documented Diagnosis Code	DOC_DIAG	Diagnosis code in the supporting documentation 'NA' if there is no documentation	X	5
14	Documented Place of Service (POS)	DOC_POS	Place of Service in the supporting documentation 'NA' 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 'NA' if there is no document	X	Integer
16	Documented Service Start Date	DOC_FDOS	Start Date of Service in the documentation 'NA' if there is no documentation	X	8
17	Documented Service End Date	DOC_LDOS	End Date of Service in the documentation 'NA' if there is no documentation	X	8
18	USCS Version Used	USCS_VERS	1=July 2018 version, covering dates of service prior to December 31, 2018 2=January 2019 version, covering dates of service from January 1 through February 28, 2019 3=January 2019 version with February 2019 addendum, covering dates of services on or after March 1, 2019	X	1

Data Element (Field)		Response Field Variable	Data Description	Format	Length
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 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>"	X	Flexible

Guidance for Specific Encounter Data Scenarios

1. To assess encounter data quality, data elements are contingent on corresponding medical record documentation. Medical records correspond to the encounter data when the member information (i.e., name, date of birth, and/or Medicaid ID), provider information, and date of service are in agreement. If the medical records match the member and provider information but the date of service is incorrect, the Encounter Service 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. Reviewers should focus on the information found in the encounter line and determine whether the encounter values are supported by medical record documentation, with the consideration that the medical record documentation may support services captured on separate encounter lines outside the scope of this review.
3. In the event medical record documentation is unavailable to support the encounter, all elements will be scored as "0" or "NA," 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.
    - 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 "NA," as applicable to each response field.
4. For the Encounter Procedure Code (ENC_PROC) field, all of the information under the headings of "procedure code description," "service description," "notes," "minimum documentation requirements," and "example activities" should be taken into account when they are applicable.
5. The Documented Staff Requirements (DOC_STAFF) field assesses whether or not the service administrator has the appropriate credentials for the procedure.

- 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.
- 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).

Appendix C. Over-Read Findings for RAE 2: Northeast Health Partners (NHP)

Figure C-1 presents aggregate results from HSAG's 30-case over-read of RAE 2's 411 sample. Agreement values range from 0.0 percent to 100.0 percent, where 100.0 percent represents complete agreement between RAE 2's EDV results and HSAG's over-read results for a data element, and 0.0 percent represents complete disagreement. To determine the percentage of cases in agreement for key validation elements, HSAG identified cases in which the over-read results agreed with the RAE's EDV findings for a composite measure comprised of the *Procedure Code*, *Diagnosis Code*, and *Units* data elements; this result is identified in the figures as *Validation Elements.*

Figure C-1—Aggregated Percent of Agreement Between HSAG's Over-Read and RAE 2's EDV Findings, by Data Element

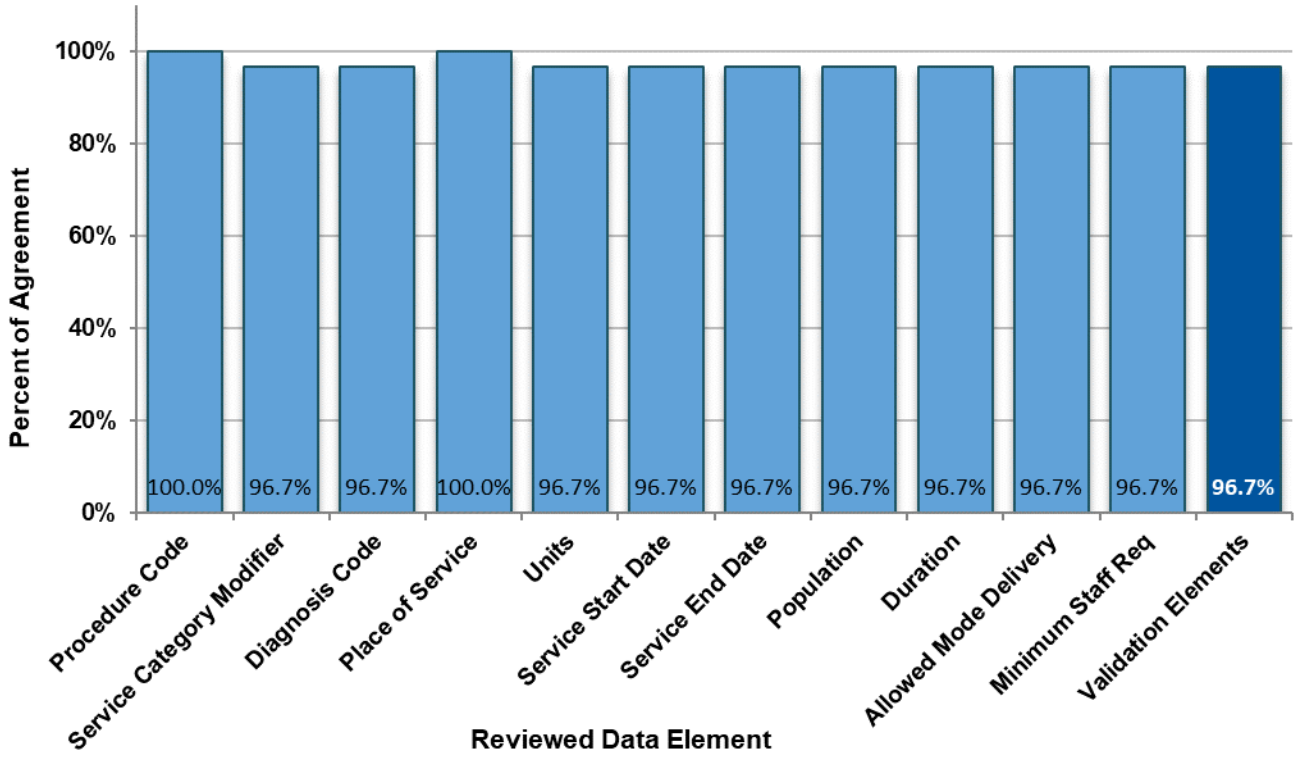


Figure C-1 shows that HSAG's reviewers agreed with RAE 2's EDV results for 100.0 percent of over-read cases for two of the 11 validated data elements. At 100.0 percent, *Procedure Code* and *Place of Service* had the highest rate of agreement between RAE 2's EDV results and HSAG's over-read results. The remaining nine validated data elements had an agreement rate of 96.7 percent.

The following figures present aggregate results from HSAG's over-read of the 10 sampled cases associated with Prevention/Early Intervention Services, Club House or Drop-In Center Services, and Residential Services, respectively.

Figure C-2—Aggregated Percent of Agreement Between HSAG's Over-Read and RAE 2's EDV Findings, by Data Element Prevention/Early Intervention Services

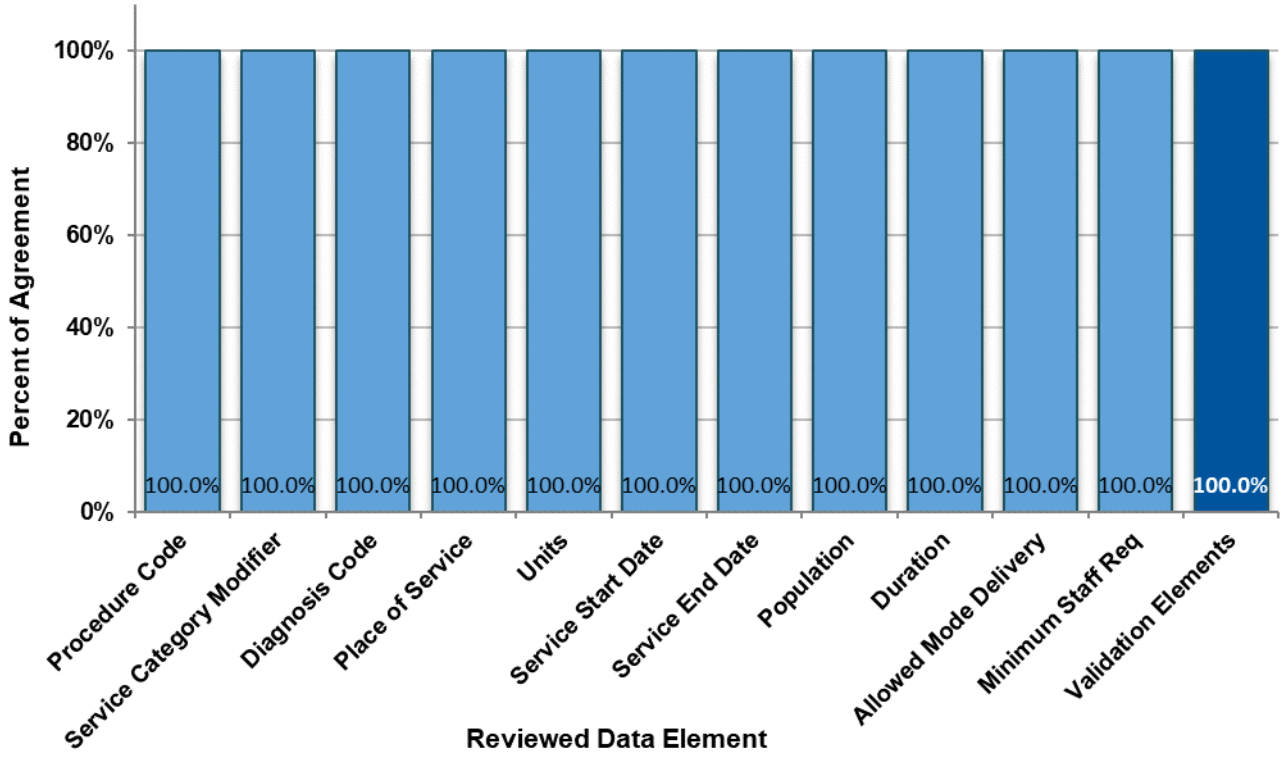


Figure C-3—Aggregated Percent of Agreement Between HSAG's Over-Read and RAE 2's EDV Findings, by Data Element Club House or Drop-In Center Services

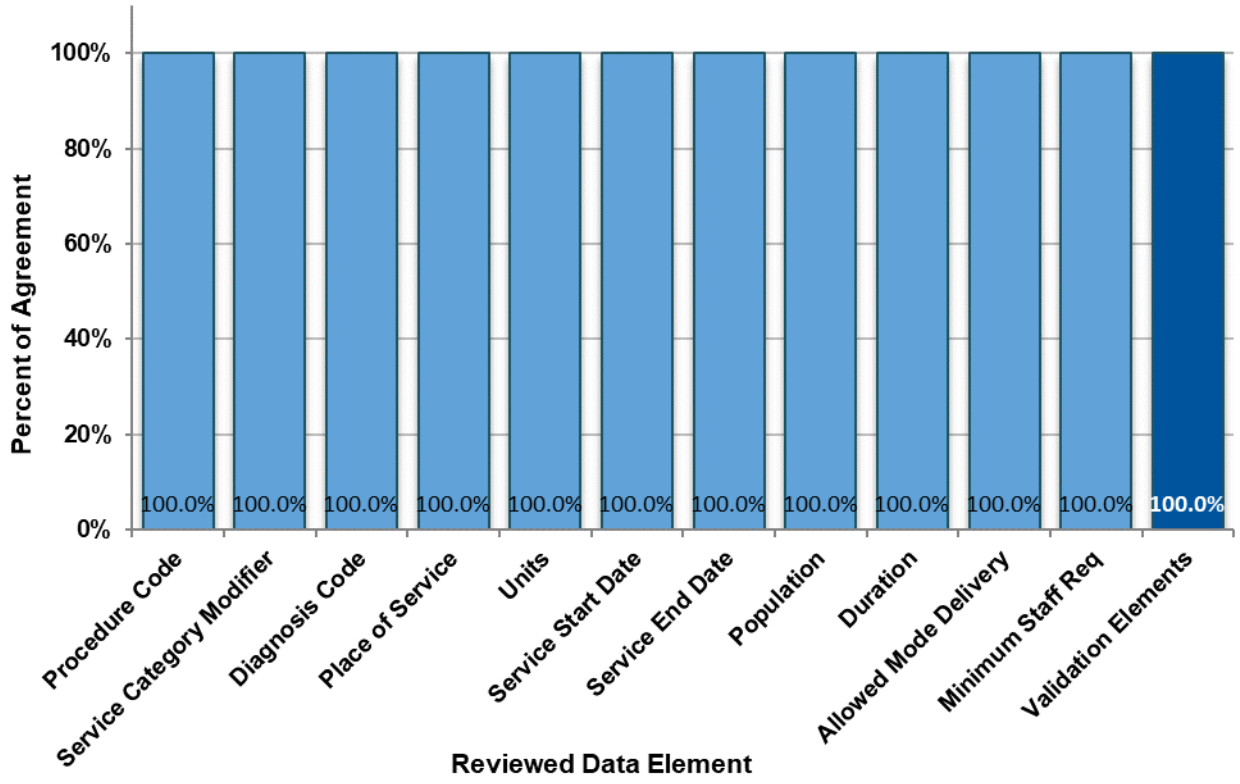
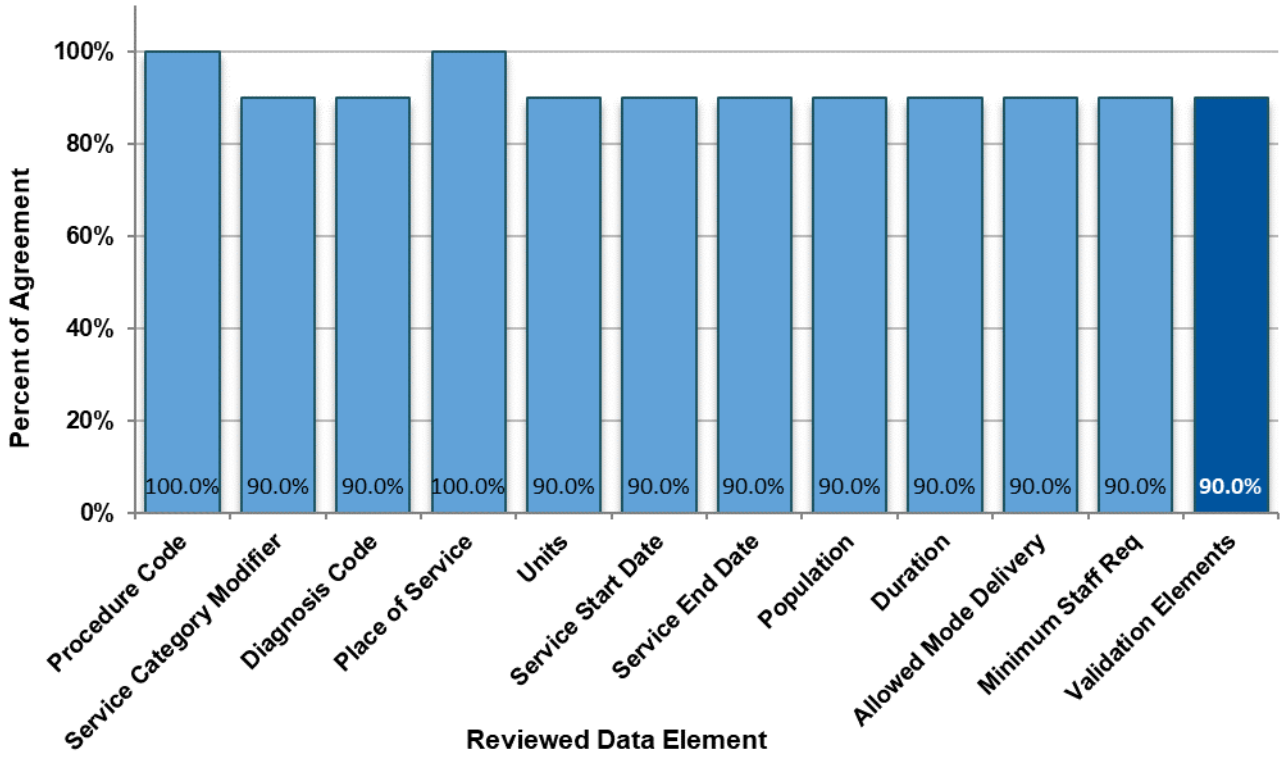


Figure C-4—Aggregated Percent of Agreement Between HSAG's Over-Read and RAE 2's EDV Findings, by Data Element Residential Services



As displayed in Figure C-1, RAE 2's aggregate agreement rated at or above 96.7 percent for all data elements. Complete agreement for all data elements was observed for Prevention/Early Intervention Services (Figure C-2) and Club House or Drop-In Center Services (Figure C-3); greater variation was observed among Residential Services (Figure C-4). Residential Services' highest agreement rate was 100.0 percent for *Procedure Code* and *Place of Service* with the lowest agreement rates for all other data elements at 90.0 percent.