



COLORADO

Department of Health Care
Policy & Financing

FY 2016–2017
Behavioral Health Organization
411 Independent Audit Report for
Colorado Health Partnerships, LLC

June 2017

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



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Background

In Fiscal Year (FY) 2008–2009, the Colorado Department of Health Care Policy & Financing (the Department) contracted Health Services Advisory Group, Inc. (HSAG), to conduct an encounter data validation study for the Department’s five contracted behavioral health organizations (BHOs).¹ Based on the study findings, HSAG recommended that the Department develop guidelines for BHOs to perform ongoing reviews of encounter data quality. The Department has continued working with the BHOs to assist them with their internal encounter data quality audits. Annually, the Department selects a random sample of 411 final, paid encounters from the BHOs’ encounter flat files and the BHOs are required to conduct an internal audit on this sample, using behavioral health record review to evaluate the quality of the encounter data. For FY 2016–2017, the Department randomly selected the sample of 411 cases for each BHO. The BHOs then submitted their audit results and an encounter data quality report for the Department’s review.

To further improve the quality of behavioral health encounter data submitted by the BHOs, the Department developed and implemented the Annual BHO Encounter Data Quality Review Guidelines (guidelines) beginning in Calendar Year (CY) 2011. The guidelines include specific timeline and file format requirements to guide each BHO in preparing its annual Encounter Data Submission Quality Report and the Service Coding Accuracy Report, which are based on the BHOs’ internal encounter data audits.

The guidelines also stipulate that an independent evaluation of the service coding accuracy results will be conducted by HSAG to verify the quality of internal audits performed by the BHOs. In contracting with HSAG in FY 2016–2017, 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 BHO’s audit process, including any submitted audit documentation.
2. Conduct a review of behavioral health records for sample cases randomly selected from each BHO’s 411 sample list.
3. Produce an aggregate report with BHO-specific findings, including a statement regarding HSAG’s level of confidence in each BHO’s audit results.

This report presents HSAG’s validation findings of the BHOs’ internal audit efforts as they pertain to the desk review (task #1 above) and behavioral health records review (task #2 above).

¹ All five BHOs contracted by the Department in FY 2016–2017 participated in this independent audit: Access Behavioral Care–Denver (ABC-D), Access Behavioral Care–Northeast (ABC-NE), Behavioral Healthcare, Inc. (BHI), Colorado Health Partnerships, LLC (CHP), and Foothills Behavioral Health Partners, LLC (FBHP).

Methodology

HSAG’s independent audit consisted of two components: (1) a desk review of the Department’s sampling protocol and each BHO’s audit documentation, and (2) an over-read of the BHOs’ internal audit results. The first component, the desk review, aimed to ensure that the samples generated for the BHOs for their internal audits followed standard sampling principles. More specifically, the desk review evaluated the extent to which the resulting 411 audit samples were generated randomly from a collection of encounters eligible for this study and were representative of those encounters.

The Department submitted its sampling methodology and the SQL code used to randomly select encounters to HSAG in January 2017. The BHOs submitted audit documentation to HSAG between March and April 2017. HSAG conducted a desk review of these internal audit methodology documents in May 2017.

The second component of HSAG’s independent audit was to evaluate whether or not the BHOs’ internal audit of behavioral health encounters against the members’ records was accurate and consistent with the Uniform Service Coding Standards (USCS) manual. HSAG received the BHOs’ response files containing their internal audit results and conducted an over-read for a sample of 30 cases from each BHO to accomplish this evaluation. Several steps were involved in this process:

1. Generation of Over-Read Samples

The Department submitted BHO-specific lists of sampled encounters² and corresponding encounter data flat file information to HSAG in January 2017. Each list contained the sample of final, adjudicated behavioral health encounters paid between October 1, 2015, and September 30, 2016, from which each BHO would conduct its internal audit. The data layout for the encounter data flat file can be found in Appendix A. From the 411 sample lists, HSAG employed a two-stage sampling methodology to randomly select 10 individual members for each of the three program service categories outlined in the Department’s 411 Audit Guidelines.³ A single encounter was then randomly selected for each member. Member lists for each of the three groups were cross-referenced to ensure that a single member was only sampled in one category. These 30 cases constituted the over-read samples for HSAG. Note that the two-stage sampling approach helps to ensure a broader selection of encounters as, over time, behavioral health services frequently involve the same members, procedures, and providers.

² The Department sampled 411 paid encounters from each BHO, stratified across three service categories (i.e., Prevention/Early Intervention, Club House or Drop-In Center Services, and Residential Services).

³ Program service categories were identified using the service category modifier or procedure code fields for each encounter. Service category modifier “HT” identified Prevention/Early Intervention Services, and service category modifier “HB” identified Club House or Drop-In Center Services. Encounters with procedure code values of “H0017,” “H0018,” or “H0019” were identified as Residential Services.

2. Audit Tool Development

Each BHO submitted the response file for its internal 411 audit to HSAG in mid-March 2017. The response file contained all required audited fields and the BHOs' validation results. The data layout of the response file is located in Appendix B. HSAG designed a web-based data collection tool and corresponding tool instructions in alignment with the BHO Data Quality Review Guidelines and the 2015 and July 2016 USCS manuals.⁴ A control file containing select fields from the Department's encounter data flat file and the BHOs' corresponding internal audit values for sampled cases was uploaded into the tool, permitting pre-population of encounter and audit information for each case. Pre-populated information could not be altered, and HSAG's reviewers were required to actively select an over-read response for each data element. Corresponding behavioral health records procured by the BHOs were linked to cases within the tool. The web-based tool allowed the HSAG analyst to extract MS Excel files containing encounter data, BHO audit responses, and HSAG reviewer responses.

3. HSAG's Over-Read Process

HSAG evaluated the accuracy of the BHOs' audit findings in April 2017. More specifically, the HSAG reviewer validated the BHOs' accuracy in auditing the providers' submitted encounter data in accordance with the USCS manuals specific to the study period. HSAG's over-read did not evaluate the quality of behavioral health record documentation or the providers' accuracy in submitting encounter data, only whether the BHOs' audit responses were accurate based on the review of the supporting behavioral health record documentation submitted by the BHOs. HSAG used the same standards for acceptable record evidence originally established by the Department for the purpose of the FY 2011–2012 independent audit. All of HSAG's over-read results were entered into the HSAG audit tool.

Two HSAG clinical reviewers were trained to conduct the over-read. During the over-read, the reviewer located the selected date of service in the submitted behavioral health record and verified the code's presence and or supporting documentation in the medical record and alignment with the USCS manual. National coding guidelines were only used when Current Procedural Terminology (CPT) codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) codes were not included in the USCS manual. Next, the HSAG reviewer assessed the audit response of the BHO in regards to the accuracy of the codes submitted by the provider. If the HSAG reviewer agreed with the BHO's response, a response of "agree" was selected in the tool. If the HSAG reviewer disagreed with the BHO's response, a response of "disagree" was selected in the tool. In the event of a disagreement with the BHO's audit findings, the HSAG reviewer would select from the tool a reason from the list of predetermined disagreement reasons specific to each data element. The findings of this audit were based on HSAG's percent of agreement or disagreement with the BHO's responses.

During the over-read, HSAG conducted ongoing an interrater reliability (IRR) assessment by randomly selecting a minimum of 10 percent of completed cases and comparing the over-read results to those from

⁴ Given the expected dates of service for encounters in this study, the BHO 411 Guidelines specify the use of either the 2015 or July 2016 version of the USCS Manual. Both versions are available from the Department at <https://www.colorado.gov/pacific/hcpf/mental-health-rate-reform-0>.

a second HSAG reviewer. For cases in which over-read discrepancies were identified between the first and second reviewers, a third, “Gold Standard” reviewer provided a final determination regarding the appropriate over-read result. Any IRR result that fell below 95 percent required further evaluation by the manager and possible re-training of the reviewer(s).

4. Analysis Process

Upon completion of the over-read, an HSAG analyst exported the results from the audit tool and thoroughly reviewed the data for consistency and clarity. The analyst also consulted with the lead clinical reviewer as needed for clarification on noted observations entered in the audit tool during the over-read. The HSAG analyst assessed the over-read results to determine the percentage of records per service category for which the HSAG reviewer agreed with the internal audit response from the BHO. Statewide and BHO-specific results were tabulated by service category for data elements audited by the BHOs and overread by HSAG. Analysis results were independently validated by a second HSAG analyst.

Results

Desk Review

Sampling Methodology

The Department provided a description of the process used to select the sample encounters for each BHO, including a limited section of source code to show the exact process by which record selection was accomplished. Limited SAS code detailing the Department’s method for assembling the sample frame was provided to HSAG. Nonetheless, information provided was sufficiently detailed to show an understanding of the data selection protocol. The Department described both the program service category criteria by which the sample was stratified and how encounters were randomly selected from the processed flat files. The Department included a sample of SAS code showing the “SURVEYSELECT” procedure as a method used to randomly select 137 encounters with payment dates between October 1, 2015, and September 30, 2016, from 15 previously created BHO and service category specific data subsets (i.e., three service category specific subsets were created for each BHO). The Department randomly selected encounters from the BHO and service category specific datasets at the encounter-line level. Note that this randomization strategy could produce a sample that includes multiple encounters for the same member.

The Department’s sampling methodology did not document whether or not the sample frame allowed three months between the end of the study period and the time at which 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 auditing encounters being voided or adjusted after the sample is selected.

BHOs' Internal Audit Methodology

As a result of the FY 2011–2012 BHO 411 Independent Audit, subsequent BHO 411 Audit Guidelines have requested internal audit methodology documentation from each BHO. This information was requested as a component of each BHO's Service Coding Accuracy Report to help provide context for the service coding accuracy findings. As a component of the CY 2016 Service Coding Accuracy Report, each BHO provided internal audit methodology information. Since the internal audit documentation is unique to each BHO, documents were not provided in a standardized format and comparisons between BHOs were conducted for informational purposes only. HSAG identified the findings listed below from the BHOs' internal audit methodology documents. It is important to note that select findings are similar to those reported in previous years.

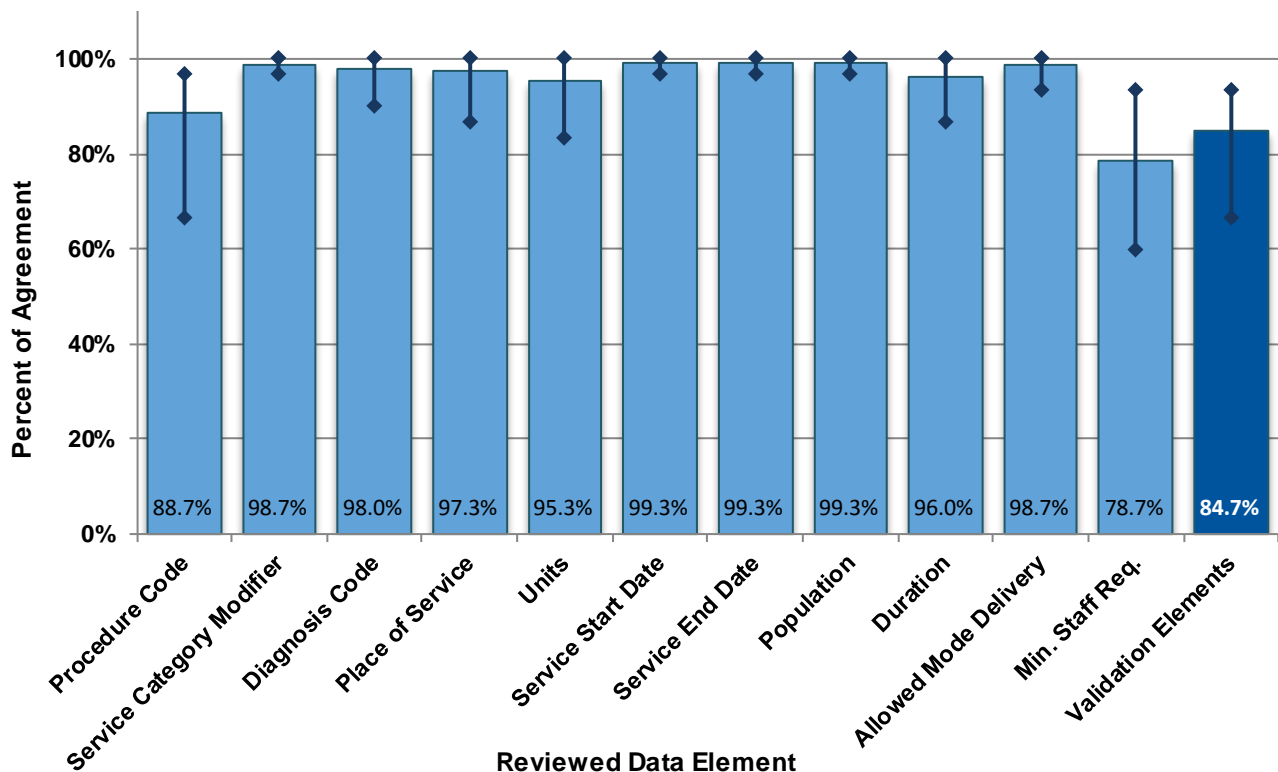
- Similarities existed in the descriptions of the tool development and audit processes among the BHOs. Three participating BHOs constructed an audit tool using Microsoft Excel, while the remaining two BHOs used a Microsoft Access database or web-based tool. Additionally, BHOs described troubleshooting and correction processes for their tools as well as any calculations built in to facilitate accurate assessment. Each BHO listed the name and credentials of internal staff responsible for audit training and oversight, and one BHO provided information on an external contractor tasked with conducting its 411 audit. Despite similarities in the content and wording within the BHOs' CY 2016 Service Coding Accuracy Reports, enough differences existed among the BHOs' reports to conclude that each BHO had conducted its own independent audit, with the exception of ABC-D and ABC-NE.
- Each BHO described the development of its audit tools, subsequent auditor training/auditor professional experience, and any reliability testing. All BHO audits were conducted with at least two auditors, and all organizations provided post-training IRR values above the 90.0 percent agreement thresholds. BHOs also provided information on post-audit IRR rates, establishing consistency beyond training and describing corrective actions required when an auditor's IRR rate was lower than the 90.0 percent threshold.
- Each BHO described steps taken to review and validate audit results and provided an explanation of its specific audit instructions. One BHO submitted a copy of the instructions provided to those auditors responsible for reviewing the behavioral health records.
- Each BHO described implementing corrective action plans (CAPs), training, or education for low-scoring providers so as to address deficiencies identified during the audit.

Over-Read of Sample Cases: All Service Types

Overall Agreement Rate

Figure 1 presents the aggregate results from HSAG’s over-read of the 150 cases sampled for assessment (30 cases from each BHO). Agreement values could range from 0 percent to 100 percent, where 100 percent represents perfect agreement between the BHOs’ audit results and HSAG’s over-read results, and 0 percent represents complete disagreement. Appendix C presents internal audit results submitted in each BHO’s Service Coding Accuracy Report. Based on each BHO’s results, HSAG also calculated an aggregate validation rate for each audit element and repeated these calculations for each of the three program service categories examined during HSAG’s FY 2016–2017 411 over-read. To determine the percentage of cases in agreement for key validation elements, HSAG identified cases in which the over-read results agreed with the BHO’s audit findings for the *Procedure Code*, *Diagnosis Code*, and *Units* elements; this result is identified in Figure 1 as *Validation Elements*.

Figure 1—Aggregated Percent of Agreement Between HSAG’s Over-Read and the BHOs’ Internal Audit Findings, by Data Element



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

Figure 1 illustrates HSAG’s agreement with the BHOs’ audit results for a composite of selected validation fields (*Procedure Code*, *Diagnosis Code*, and *Units*) as 84.7 percent of the 150 over-read cases (*Validation Elements*, 127 of 150 cases). Only one case (0.7 percent) did not have adequate medical record documentation; consequently, medical record non-submission contributed minimally to overall indicator disagreement rates. At the BHO level, the agreement rate for *Validation Elements* ranged from 66.7 percent to 93.3 percent.

It is important to note that HSAG reviewers did not disagree with all three component elements for the *Validation Elements* indicator. The primary driver of negative responses for this element was the low agreement rate with *Procedure Code* audit determinations (26.1 percent of cases, n=6 of 23 cases). Among cases with negative *Validation Elements* responses, higher agreement rates were observed for *Diagnosis Code* (87.0 percent) and *Units* (69.9 percent).

Field-Specific Agreement Rate

The 11 audited elements achieved aggregate agreement rates ranging from 78.7 percent to 99.3 percent. *Minimum Staff Requirements* had the lowest aggregate agreement rate for any element (78.7 percent) and the lowest agreement rate among individual BHOs (60.0 percent). The highest aggregate agreement rates were observed for *Service Start Date*, *Service End Date*, and *Population*—each with agreement rates of 99.3 percent. Nine data elements had disagreement rates ranging from 0.7 percent to 4.7 percent; and the remaining elements, *Procedure Code* and *Minimum Staff Requirements*, had disagreement rates of 11.3 percent and 21.3 percent, respectively.

HSAG’s reviewers disagreed with BHO auditors’ determinations for *Procedure Code* for 17 of 150 cases. This primarily occurred in instances where audit determinations indicated BHO disagreement with the encounter value for *Procedure Code* (n=13 of 17 cases). The most frequently cited disagreement reason was that HSAG reviewers were able to corroborate the encounter value in the submitted medical record. The remaining four *Procedure Code* disagreement cases were due to non-billable services (n=2), incorrect procedure codes (n=1), and missing medical record documentation (n=1).

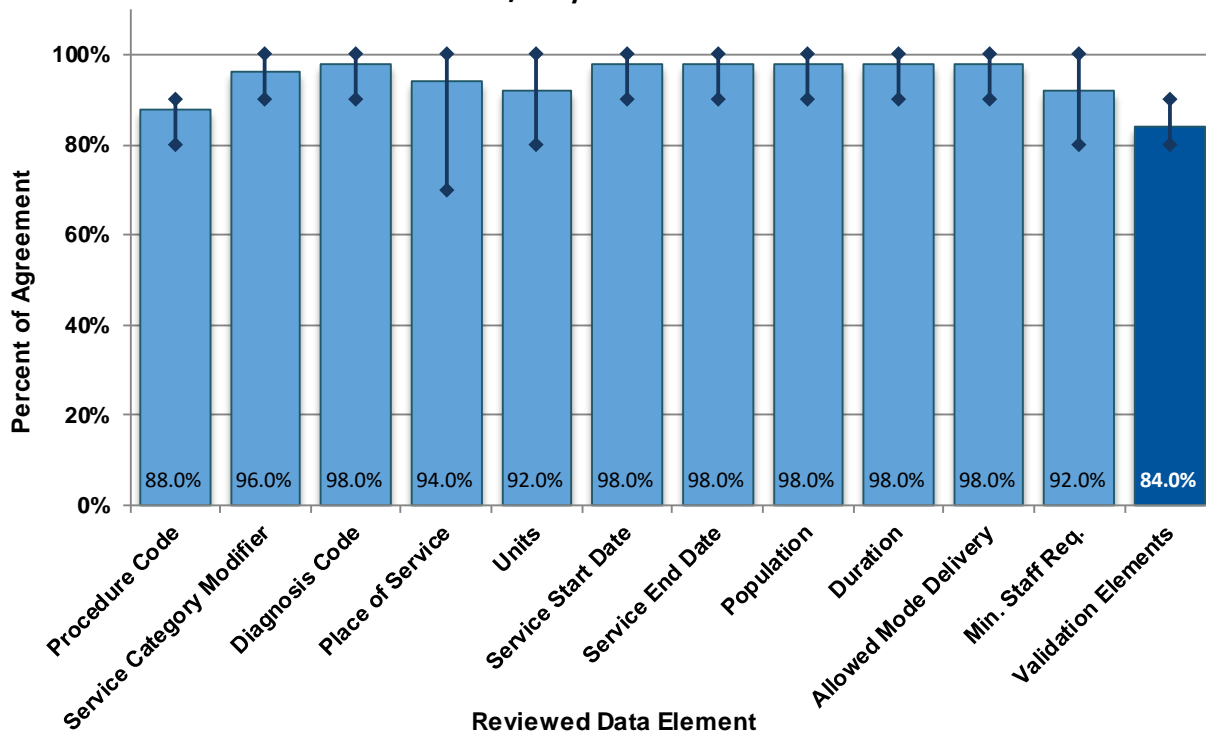
HSAG’s reviewers disagreed with BHO auditors’ determinations for *Minimum Staff Requirements* for 32 of 150 cases. Disagreement reasons varied across cases. In instances where BHO auditors’ determinations indicated that medical record documentation verified the credentials of the service provider, HSAG reviewers most frequently cited that the credentials of the provider were not found in the submitted records (n=10, 31.3 percent of all *Minimum Staff Requirements* disagreement cases). Additionally, HSAG’s reviewers found that service providers’ credentials did not meet requirements defined in the USCS Manual for five cases where the BHOs’ auditors indicated documentation compliance for staff credentials (15.6 percent of disagreement cases). Conversely, in instances where the BHO auditors’ responses indicated that medical record documentation did not support or verify the credentials of the service provider, HSAG’s reviewers were able to verify appropriate credentials in the submitted records (n=12, 37.5 percent of all disagreement cases).

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 50 cases with Prevention/Early Intervention Services (10 cases per BHO).

Figure 2—Aggregated Percent of Agreement Between HSAG’s Over-Read and the BHOs’ Internal Audit Findings, by Data Element Prevention/Early Intervention Services



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

As seen in Figure 2, HSAG agreed with the BHOs’ audit determinations for a composite of selected validation fields for 84.0 percent (n=42) of the Prevention/Early Intervention Services 50 over-read cases. The agreement rate for *Validation Elements* ranged from 80.0 percent to 90.0 percent by BHO, with three BHOs having an agreement rate lower than 90.0 percent for cases in this service category.

Field-Specific Agreement Rate

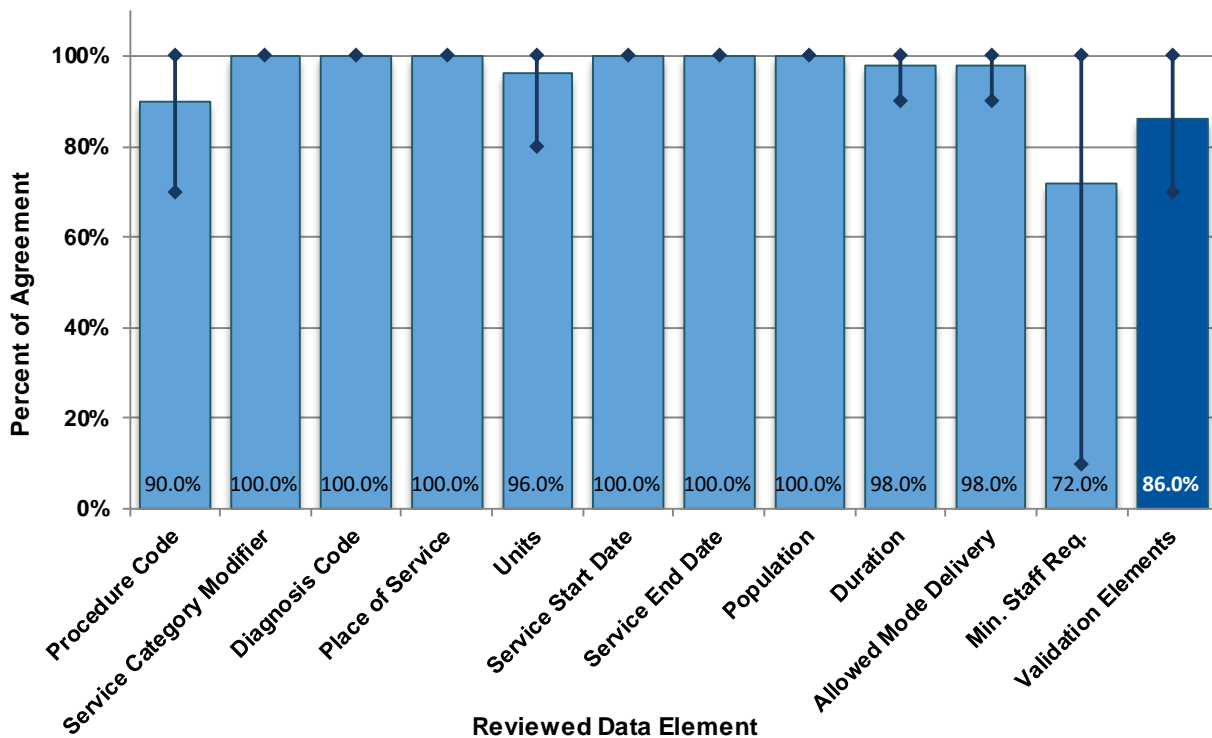
All audited elements achieved an aggregate agreement rate of at least 88.0 percent. At 88.0 percent, the *Procedure Code* indicator had the lowest overall aggregate agreement rate. Due to a single case of medical record non-submission in the service category area, the highest aggregate agreement rates for individual data elements in this category were all slightly below 100 percent, with 98.0 percent aggregate agreement rates observed for *Diagnosis Code*, *Service Start Date*, *Service End Date*, *Population*, *Duration*, and *Allowed Mode Delivery*.

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 50 cases with Club House or Drop-in Center Services (10 cases per BHO).

Figure 3—Aggregated Percent of Agreement Between HSAG’s Over-Read and the BHOs’ Internal Audit Findings, by Data Element Club House or Drop-In Center Services



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

As seen in Figure 3, HSAG agreed with the BHOs’ audit determinations for a composite of selected validation fields for 86.0 percent (n=43) of the 50 Club House or Drop-In Center Services over-read cases. The BHO-specific agreement rate for *Validation Elements* ranged from 70.0 to 100 percent, with two BHOs having rates lower than 90.0 percent.

Field-Specific Agreement Rate

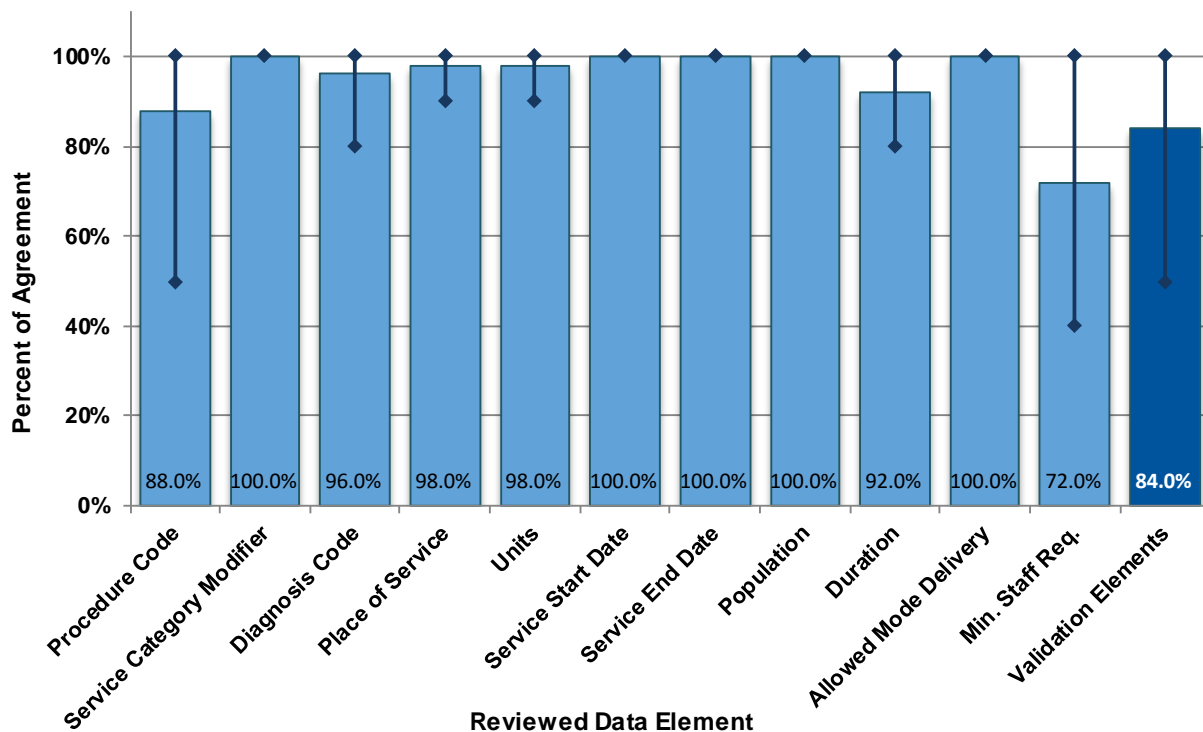
Aggregate agreement rates for audited elements displayed substantial variation, ranging from 72.0 percent to 100 percent. At 72.0 percent, *Minimum Staff Requirements* had the lowest overall aggregate agreement rate; and rates varied widely across BHOs, ranging from 10.0 percent to 100 percent. *Service Category Modifier*, *Diagnosis Code*, *Place of Service*, *Service Start Date*, *Service End Date*, and *Population* had aggregate agreement rates of 100 percent for each of the five BHOs.

Over-Read of Sample Cases: Residential Services

Overall Agreement Rate

Figure 4 presents the aggregate results from HSAG’s over-read of the 50 cases with Residential Services (10 cases per BHO).

Figure 4—Aggregated Percent of Agreement Between HSAG’s Over-Read and the BHOs’ Internal Audit Findings, by Data Element Residential Services



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

As seen in Figure 4, HSAG agreed with the BHOs’ audit determinations for a composite of selected validation fields for 84.0 percent (n=42) of the 50 Residential Services over-read cases. The BHO-specific agreement rates for *Validation Elements* ranged from 50.0 percent to 100 percent, with two BHOs having rates lower than 80.0 percent.

Field-Specific Agreement Rate

Aggregate agreement rates for audited elements displayed substantial variation, ranging from 72.0 percent to 100 percent. At 72.0 percent, *Minimum Staff Requirements* had the lowest overall aggregate agreement rate. *Service Category Modifier*, *Service Start Date*, *Service End Date*, *Population*, and *Allowed Mode Delivery* data elements had aggregate agreement rates of 100 percent for each of the five BHOs.

Conclusions

HSAG’s desk review of the Department’s sampling methodology took into consideration whether or not the generated sample included randomly selecting final, paid encounters specific to the study period and stratified by service category. The submitted methodology document did not include sampling frame construction details, such as time frame or adjudication status restrictions on included encounters. While sampling logic seems appropriate for randomly selecting encounters from each of the three service categories, HSAG saw no evidence of consideration for assessing and removing duplicate encounter records in which one line of the encounter was coded to one service category while another line of the same encounter was coded to another service category. Similarly, coding logic provided by the Department contained nothing that would prevent the same member from being selected more than once for the audit sample. This type of multi-stage sampling approach would allow the Department to assess encounter data accuracy across a potentially wider range of members and providers. While this finding persists from the FY 2015–2016 study, the Department’s current approach grants equal weight to each encounter in the sample frame, meeting the overall intent of this study.

By acting as the central source for the random selection of encounter samples, the Department continued to reduce the likelihood of plan-specific biases related to sample generation. This approach ensured that all BHOs had encounters sampled for the 411 audit using the same methodology. This approach also ensured that sampled cases were present in the Department’s encounter data (i.e., the encounters were submitted to the Department by each BHO rather than existing in the BHOs’ encounter data repositories without submission to the Department).

Of the 150 cases which HSAG overread, HSAG’s reviewers agreed with the BHO auditors’ determination for all 11 elements in 93 cases (62.0 percent). Aside from the single case for which incomplete medical record documentation was submitted, HSAG completely agreed with BHO auditors’ determinations across all cases for the *Service Start Date*, *Service End Date*, and *Population* data elements.

Compared to the FY 2015–2016 BHO 411 results, this year’s results demonstrate some decline overall; excluding the missing medical record case, only three elements would have had 100 percent aggregate over-read agreement rates, compared to five elements for the prior year. Between FY 2015–2016 and FY 2016–2017, three of the five BHOs demonstrated fewer elements with 100 percent overall over-read agreement rates. Specifically, marked declines were observed for *Procedure Code* and *Minimum Staff Requirements* across all five BHOs. Contrarily, an improvement was observed across all five BHOs for *Diagnosis Code*.

The *Validation Elements* indicator, which represents overall agreement across *Procedure Code*, *Diagnosis Code*, and *Units*, varied significantly across service category types. The overall agreement rate of 84.7 percent had a BHO specific range of 26.6 percentage points (from 66.7 percent to 93.3 percent). On a service category level, agreement rates ranged from 84.0 percent to 86.0 percent, with the highest over-read agreement rate observed for Club House/Drop-In Center Services (86.0 percent). Overall, negative results for *Validation Elements* were driven by a low-level over-read agreement for *Procedure Code*, with HSAG reviewers agreeing with BHO auditor determinations for only 26.1 percent

of negative *Validation Elements* cases (n=6 of 23 cases). This trend was observed across individual service categories as well, with *Procedure Code* over-read agreement rates below 30.0 percent for all three service categories. Greater variation was observed among the service category specific agreement rates for *Diagnosis Code* and *Units*, which had overall agreement rate ranges of 75.0 percent to 100 percent and 50.0 percent to 87.5 percent, respectively.

General over-read disagreement was minimal on a case-specific level (i.e., the number of individual data elements with an over-read disagreement case by case). Overall, HSAG's reviewers disagreed with the BHO auditors' determinations for no more than one data element in 94.0 percent (n=141) of cases, demonstrating a high level of confidence in the BHOs' auditing capabilities. A similar trend of moderately high confidence in audit determinations was observed at the service category level, with 90.0 percent of Residential Services cases having one or fewer over-read disagreements, compared to 100 percent of Club House/Drop-In Center Services cases. Assessing individual data element agreement at the case level re-affirmed earlier findings pointing to audit determinations for *Procedure Code* and *Minimum Staff Requirements* as the primary contributors to over-read disagreement. Both *Procedure Code* and *Minimum Staff Requirements* agreement rates were below 90.0 percent when aggregating cases overall, and for two of three program service categories.

The disagreement reasons cited by HSAG reviewers demonstrated trends that warranted attention for both *Procedure Code* and *Minimum Staff Requirements*. For most *Procedure Code* disagreement cases, BHO auditors' assessments revealed discordance between documented values and the encounter record, while HSAG reviewers corroborated encounter record information. This indicates potential differences in interpretation of USCS Manual specifications for procedure code as well as an opportunity to streamline auditor training. Conversely, BHO auditors' assessment of *Minimum Staff Requirements* for sampled cases revealed more complex issues. Although technical specifications for documentation are not a component of the BHOs' audits or HSAG's over-read, BHOs assessed both the presence and appropriateness of servicing provider credentials. Disagreement cases included instances of both issues, indicating the possible existence of multiple interpretations of the USCS Manual as it relates to credential requirements.

Recommendations

HSAG recommends that findings associated with this independent audit be used for the Department’s information only. Acting on the prior year’s recommendations, the Department has contracted HSAG to assist with monitoring quality improvement; specifically, BHOs will be required to create quality improvement plans for service coding accuracy results below 90.0 percent. This action will also impact recommendations based on FY 2016–2017 findings.

Based on the findings described in this report, HSAG offers the following recommendations to improve the quality of future BHO internal audits. While current over-read results show progress by the BHOs, note that similar recommendations from prior over-reads remain relevant.

- The Department may benefit from further review of its process for selecting encounter records for inclusion in the 411 audit. While the Department’s methods for stratifying record selection and for randomly selecting records for inclusion are adequate, no indication suggests that encounter record duplications are intentionally prevented in the encounter selection process. While the Department provided a section of SAS source code used in randomized sampling, it would be beneficial to review the complete source code to assess the Department’s methodology for data extraction and sample frame generation that affect the integrity of the randomized sample.
- The BHOs demonstrated a slight decrease in performance from the FY 2015–2016 411 audit over-read results; this was especially observed for *Procedure Code*, *Units*, and *Minimum Staff Requirements*. Both individual BHOs’ Service Coding Accuracy Report results and over-read results demonstrated difficulties in coding data elements like *Procedure Code* and *Units*, while assessing medical record documentation for appropriate credentialing also posed challenges. The Department should work with the BHOs to ensure that the USCS Manual is used to appropriately classify services and calculate service units. The BHOs should work with providers to ensure that the appropriate behavioral health professionals administer services, and accurately document their involvement in the behavioral health records, including dated signatures with the providers’ credentials and titles.
- As noted in prior over-read findings, each BHO’s audit documentation reported the use of training or corrective actions to address providers’ encounter submission errors, and the Department should assess the BHOs’ training and/or corrective action procedures and materials. The Department’s review of these documents and procedures may identify best practices or opportunities for continued standardization across BHOs.

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

Data Element (Field)		Status*	Format	Length	Valid Value
0	Record No	R	X	Integer	Sequential number
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 Diagnosis Code	R	X	5	Encounter data
16	Second Diagnosis Code	C	X	5	Encounter data
17	Third Diagnosis Code	C	X	5	Encounter data
18	Fourth 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
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-10 Surgical Procedure Code	C	X	7	Encounter data



Data Element (Field)		Status*	Format	Length	Valid Value
36	Secondary ICD-10 Surgical Procedure Code	C	X	7	Encounter data
37	Discharge Status Code	C	X	2	Encounter data
38	BHO Name	R	X	Flexible	Encounter data
39	BHO 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

*R = Required, C = Conditional

Appendix B. Response Data Layout for Encounter Quality Audit for BHOs

Please note that HSAG made minimal edits for readability in the table below.

Data Element (Field)		Data Description	Format	Length
0	Record No	Sequential number for each of 137 records	X	Integer
1	Encounter Procedure Code	0=No supporting doc, or not consistent with the doc, or, if procedure code is included in the USCS, not compliant with the service description in USCS*; 1=yes, consistent with the supporting doc and comply with USCS, if procedure code is included in the USCS; *All of the information under the headings of “procedure code description,” “service description,” “notes,” “minimum documentation requirements,” including the technical documentation requirements and “example activities” should be taken into account when they are applicable.	X	1
2	Encounter Diagnosis Code	0=no doc, or not consistent with the supporting doc, or not compliant with the diagnosis code requirement in USCS; 1=yes, comply and consistent	X	1
3	Encounter POS	0=no doc, or not consistent with the supporting doc, or, if procedure code is included in the USCS, not compliant with USCS; 1=yes, comply		
4	Encounter Service Cat/Program Category (Procedure Modifier 1)	0=not compliant with the program category requirement in the USCS for the encounter procedure code if procedure code is included in USCS; 1=yes, comply; If procedure code or revenue code is not included in the USCS, the program category must be state plan.	X	1
5	Encounter Units	0=no supporting doc, or not consistent with the doc or not within the duration allowed by USCS if procedure code is included in USCS; 1=yes, consistent	X	1
6	Encounter Service Start Date	0=Start date is not consistent with the supporting doc; 1=consistent	X	1
7	Encounter Service End Date	0=End date is not consistent with the supporting doc; 1=consistent	X	1
8	Doc_Population	0=no doc or does not comply with USCS if procedure code is included in USCS; 1=yes, complies	X	1
9	Doc_Duration	0=no doc or does not comply with USCS if procedure code is included in USCS; 1=yes, complies	X	1
10	Doc_Allowed_Mode_Delivery	0=no doc or does not comply with USCS if procedure code is included in USCS; 1=yes, complies	X	1
11	Doc_Staff_Req	0=no doc or does not comply with USCS if procedure code is included in USCS; 1=yes, complies	X	1



Data Element (Field)		Data Description	Format	Length
12	Doc_Procedure_Code	Procedure Code in the supporting doc; 'NA' if there is no document or unable to determine service based on documentation	X	5
13	Doc_Diag	Diagnosis code in the supporting doc; 'NA' if there is no document	X	5
14	Doc_POS	Place of Service in the supporting doc; 'NA' if there is no document	X	2
15	Doc_Units	Max of the units complies with USCS if procedure code is included in USCS; 'NA' if there is no document	X	Integer
16	Doc_Service_Start_Date	Start Date in the doc; 'NA' if there is no doc	X	8
17	Doc_Service_End_Date	End Date in the doc; 'NA' if there is no doc	X	8
18	USCS Version Used	1=2015 version, 2=July 2016 version	X	1
19	Comments (optional)	Any comments, for example 'no documentation received from provider'	X	Flexible

Appendix C. Over-Read Findings for Colorado Health Partnerships, LLC (CHP)

Figure C-1 presents aggregate results from HSAG’s 30-case over-read of CHP’s 411 sample. Agreement values range from 0 percent to 100 percent, where 100 percent represents complete agreement between CHP’s audit results and HSAG’s over-read results and 0 percent represents complete disagreement.

Figure C-1—Aggregated Percent of Agreement Between HSAG’s Over-Read and CHP’s Internal Audit Findings, by Data Element

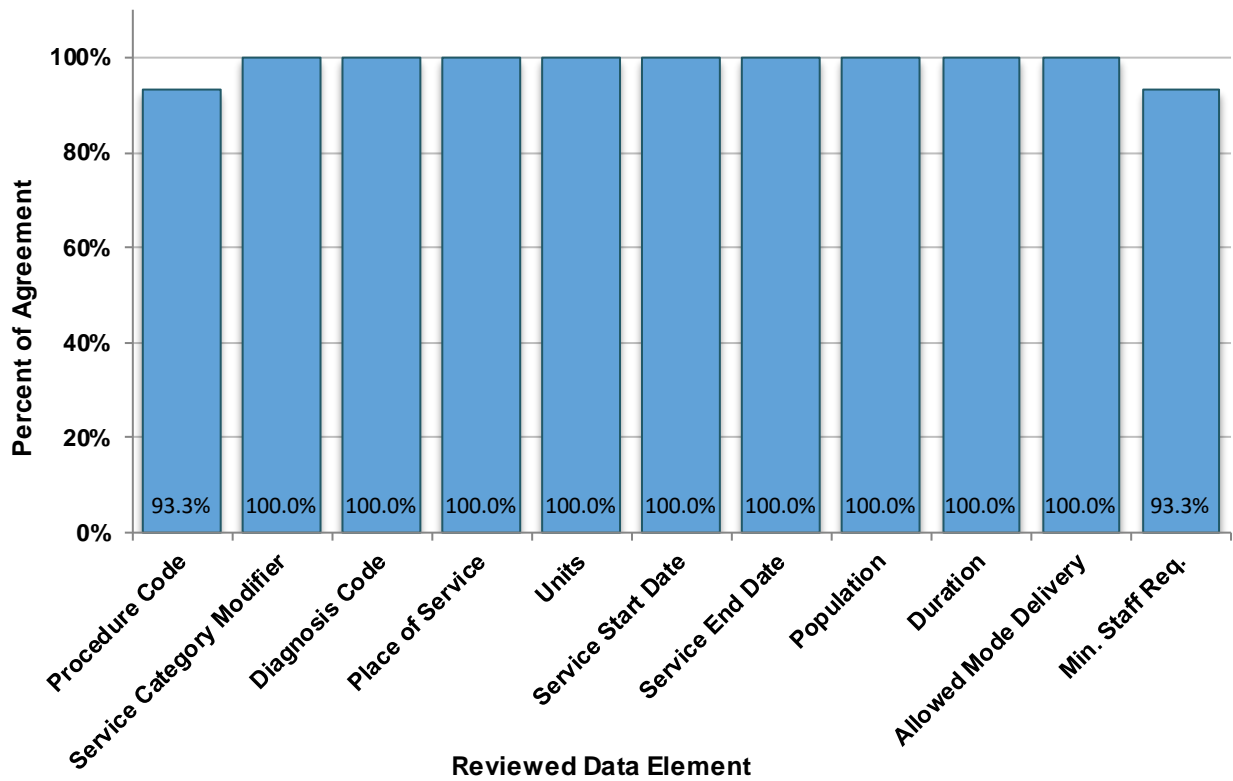


Figure C-1 shows that, for nine of the 11 audited elements, HSAG reviewers were in agreement with CHP’s audit results for 100 percent of the over-read cases. At 93.3 percent, *Procedure Code* and *Minimum Staff Requirements* displayed the lowest agreement between CHP’s audit results and HSAG’s over-read results.

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 CHP’s Internal Audit Findings, by Data Element Prevention/Early Intervention Services



Figure C-3—Aggregated Percent of Agreement Between HSAG’s Over-Read and CHP’s Internal Audit Findings, by Data Element Club House or Drop-In Center Services

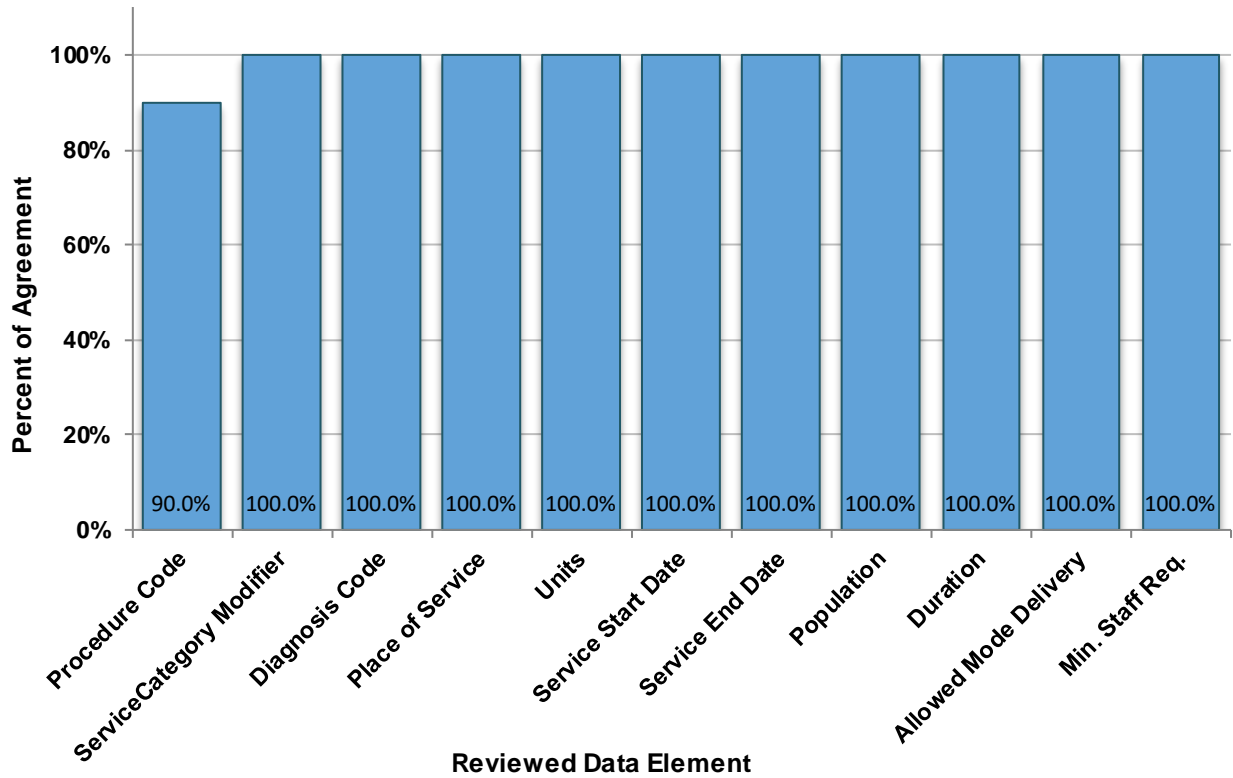


Figure C-4—Aggregated Percent of Agreement Between HSAG’s Over-Read and CHP’s Internal Audit Findings, by Data Element Residential Services



Complete agreement existed between HSAG’s over-read and CHP’s audit results for all elements among the Residential Services (Figure C-4) cases and nearly all elements among the Club House or Drop-In Center Services (Figure C-3) cases. Prevention/Early Intervention Services cases demonstrated complete agreement for nine of 11 elements (Figure C-2).

The *Procedure Code* element demonstrated moderately high agreement rates for Prevention/Early Intervention Services and Club House or Drop-In Center Services, while *Minimum Staff Requirements* displayed a moderately low agreement rate for Prevention/Early Intervention Services cases.