2022–23 Encounter Data Validation Study Report

Quality Population Health Management
California Department of Health Care Services

February 2024

Property of the California Department of Health Care Services

HSAG HEALTH SERVICES ADVISORY GROUP

DHCS CALIFORNIA DEPARTMENT OF HEALTH CARE SERVICES

Table of Contents

Commonly Used Abbreviations and Acronyms viii

1. Executive Summary 1
Methodology 1
Key Findings from Medical Record Review 2
Encounter Data Completeness 2
Encounter Data Accuracy 3
Recommendations 3

2. Overview and Methodology 4
Overview 4
Methodology 5
Study Population 5
Sampling Strategy 8
Medical Record Procurement 9
Review of Medical Records 9
Study Indicators 10

3. Medical Record Review Results 15
Medical Record Procurement Status 15
Encounter Data Completeness 19
Date of Service Completeness 19
Diagnosis Code Completeness 21
Procedure Code Completeness 23
Procedure Code Modifier Completeness 26
Rendering Provider Name Completeness 29
Encounter Data Accuracy 32
Diagnosis Code Accuracy 32
Procedure Code Accuracy 34
Procedure Code Modifier Accuracy 36
Rendering Provider Name Accuracy 38
All-Element Accuracy 40

4. Conclusions and Recommendations 43
Conclusions 43
Encounter Data Completeness 43
Encounter Data Accuracy 44
Recommendations 46
Study Limitations 48

Appendix A. Plans Included in the Study A-1

Appendix B. Findings for Aetna Better Health of California (Aetna) B-1

Appendix C. Findings for AIDS Healthcare Foundation (AHF) C-1

Appendix D. Findings for Alameda Alliance for Health (AAH) D-1
Appendix E. Findings for Anthem Blue Cross Partnership Plan (Anthem Blue Cross) E-1
Appendix F. Findings for Blue Shield of California Promise Health Plan (Blue Shield Promise) F-1
Appendix G. Findings for California Health & Wellness Plan (CHW) G-1
Appendix H. Findings for CalOptima H-1
Appendix I. Findings for CalViva Health (CalViva) I-1
Appendix J. Findings for CenCal Health (CenCal) J-1
Appendix K. Findings for Central California Alliance for Health (CCAH) K-1
Appendix L. Findings for Community Health Group Partnership Plan (CHG) L-1
Appendix M. Findings for Contra Costa Health Plan (CCHP) M-1
Appendix N. Findings for Gold Coast Health Plan (GCHP) N-1
Appendix O. Findings for Health Net Community Solutions, Inc. (Health Net) O-1
Appendix P. Findings for Health Plan of San Joaquin (HPSJ) P-1
Appendix Q. Findings for Health Plan of San Mateo (HPSM) Q-1
Appendix R. Findings for Inland Empire Health Plan (IEHP) R-1
Appendix S. Findings for Kaiser Permanente North (Kaiser NorCal) S-1
Appendix T. Findings for Kaiser Permanente South (Kaiser SoCal) T-1
Appendix U. Findings for Kern Health Systems (KHS) U-1
Appendix V. Findings for L.A. Care Health Plan (L.A. Care) V-1
Appendix W. Findings for Molina Healthcare of California (Molina) W-1
Appendix X. Findings for Partnership HealthPlan of California (Partnership) X-1
Appendix Y. Findings for San Francisco Health Plan (SFHP) Y-1
Appendix Z. Findings for Santa Clara Family Health Plan (SCFHP) Z-1
Appendix AA. Findings for SCAN Health Plan (SCAN) AA-1

Table of Figures

Figure 3.1—Medical Record Omission and Encounter Data Omission for Date of Service 20
Figure 3.2—Medical Record Omission and Encounter Data Omission for Diagnosis Code 22
Figure 3.3—Medical Record Omission and Encounter Data Omission for Procedure Code 24
Figure 3.4—Medical Record Omission and Encounter Data Omission for Procedure Code Modifier 27
Figure 3.5—Medical Record Omission and Encounter Data Omission for Rendering Provider Name 30
Figure 3.6—Accuracy Results and Inaccuracy Reasons for Diagnosis Code 33
Figure 3.7—Accuracy Results and Inaccuracy Reasons for Procedure Code 35
Figure 3.8—Accuracy Results for Procedure Code Modifier 37
Figure 3.9—Accuracy Results and Inaccuracy Reasons for Rendering Provider Name . 39

Table of Tables

Table 1.1—Statewide Results for Study Indicators 2
Table 2.1—Key Data Elements for Medical Record Review 5
Table 2.2—Criteria for Physician Visits Included in the Study 6
Table 2.3—Study Indicators 10
Table 2.4—Standards for Study Indicators 13
Table 3.1—Medical Record Procurement Status 15
Table 3.2—Reasons for Missing Medical Records 16
Table 3.3—Medical Record Submission Status for Second Date of Service 17
Table 3.4—All-Element Accuracy Results 40
Table 4.1—Encounter Data Completeness Summary 43
Table 4.2—Encounter Data Accuracy Summary 45
Table 4.3—Grid of Plans Not Meeting EDV Study Standards 47
Table A.1—Plans Included in the Study A-1
Table B.1—Medical Record Procurement Status for Aetna B-1
Table B.2—Reasons for Missing Medical Records for Aetna B-1
Table B.3—Medical Record Submission Status for Second Date of Service for Aetna .. B-2
Table B.4—Encounter Data Completeness Summary for Aetna B-2
Table B.5—Encounter Data Accuracy Summary for Aetna B-4
Table C.1—Medical Record Procurement Status for AHF C-1
Table C.2—Reasons for Missing Medical Records for AHF C-1

Table C.3—Medical Record Submission Status for Second Date of Service for AHF....C-2
Table C.4—Encounter Data Completeness Summary for AHF....C-2
Table C.5—Encounter Data Accuracy Summary for AHF....C-4
Table D.1—Medical Record Procurement Status for AAH....D-1
Table D.2—Reasons for Missing Medical Records for AAH....D-1
Table D.3—Medical Record Submission Status for Second Date of Service for AAH....D-2
Table D.4—Encounter Data Completeness Summary for AAH....D-2
Table D.5—Encounter Data Accuracy Summary for AAH....D-4
Table E.1—Medical Record Procurement Status for Anthem Blue Cross....E-1
Table E.2—Reasons for Missing Medical Records for Anthem Blue Cross....E-1
Table E.3—Medical Record Submission Status for Second Date of Service for Anthem Blue Cross....E-2
Table E.4—Encounter Data Completeness Summary for Anthem Blue Cross....E-2
Table E.5—Encounter Data Accuracy Summary for Anthem Blue Cross....E-4
Table F.1—Medical Record Procurement Status for Blue Shield Promise....F-1
Table F.2—Reasons for Missing Medical Records for Blue Shield Promise....F-1
Table F.3—Medical Record Submission Status for Second Date of Service for Blue Shield Promise....F-2
Table F.4—Encounter Data Completeness Summary for Blue Shield Promise....F-2
Table F.5—Encounter Data Accuracy Summary for Blue Shield Promise....F-4
Table G.1—Medical Record Procurement Status for CHW....G-1
Table G.2—Reasons for Missing Medical Records for CHW....G-1
Table G.3—Medical Record Submission Status for Second Date of Service for CHW....G-2
Table G.4—Encounter Data Completeness Summary for CHW....G-2
Table G.5—Encounter Data Accuracy Summary for CHW....G-4
Table H.1—Medical Record Procurement Status for CalOptima....H-1
Table H.2—Reasons for Missing Medical Records for CalOptima....H-1
Table H.3—Medical Record Submission Status for Second Date of Service for CalOptima....H-2
Table H.4—Encounter Data Completeness Summary for CalOptima....H-2
Table H.5—Encounter Data Accuracy Summary for CalOptima....H-4
Table I.1—Medical Record Procurement Status for CalViva....I-1
Table I.2—Reasons for Missing Medical Records for CalViva....I-1
Table I.3—Medical Record Submission Status for Second Date of Service for CalViva....I-2
Table I.4—Encounter Data Completeness Summary for CalViva....I-2
Table I.5—Encounter Data Accuracy Summary for CalViva....I-4
Table J.1—Medical Record Procurement Status for CenCal....J-1
Table J.2—Reasons for Missing Medical Records for CenCal....J-1

Table J.3—Medical Record Submission Status for Second Date of Service for CenCal J-1
Table J.4—Encounter Data Completeness Summary for CenCal J-2
Table J.5—Encounter Data Accuracy Summary for CenCal J-3
Table K.1—Medical Record Procurement Status for CCAH K-1
Table K.2—Reasons for Missing Medical Records for CCAH K-1
Table K.3—Medical Record Submission Status for Second Date of Service for CCAH K-2
Table K.4—Encounter Data Completeness Summary for CCAH K-2
Table K.5—Encounter Data Accuracy Summary for CCAH K-4
Table L.1—Medical Record Procurement Status for CHG L-1
Table L.2—Reasons for Missing Medical Records for CHG L-1
Table L.3—Medical Record Submission Status for Second Date of Service for CHG L-2
Table L.4—Encounter Data Completeness Summary for CHG L-2
Table L.5—Encounter Data Accuracy Summary for CHG L-4
Table M.1—Medical Record Procurement Status for CCHP M-1
Table M.2—Reasons for Missing Medical Records for CCHP M-1
Table M.3—Medical Record Submission Status for Second Date of Service for CCHP M-2
Table M.4—Encounter Data Completeness Summary for CCHP M-2
Table M.5—Encounter Data Accuracy Summary for CCHP M-4
Table N.1—Medical Record Procurement Status for GCHP N-1
Table N.2—Reasons for Missing Medical Records for GCHP N-1
Table N.3—Medical Record Submission Status for Second Date of Service for GCHP N-2
Table N.4—Encounter Data Completeness Summary for GCHP N-2
Table N.5—Encounter Data Accuracy Summary for GCHP N-4
Table O.1—Medical Record Procurement Status for Health Net O-1
Table O.2—Reasons for Missing Medical Records for Health Net O-1
Table O.3—Medical Record Submission Status for Second Date of Service for Health Net O-2
Table O.4—Encounter Data Completeness Summary for Health Net O-2
Table O.5—Encounter Data Accuracy Summary for Health Net O-4
Table P.1—Medical Record Procurement Status for HPSJ P-1
Table P.2—Reasons for Missing Medical Records for HPSJ P-1
Table P.3—Medical Record Submission Status for Second Date of Service for HPSJ P-2
Table P.4—Encounter Data Completeness Summary for HPSJ P-2

Table P.5—Encounter Data Accuracy Summary for HPSJ P-4
Table Q.1—Medical Record Procurement Status for HPSM Q-1
Table Q.2—Reasons for Missing Medical Records for HPSM Q-1
Table Q.3—Medical Record Submission Status for Second Date of Service for HPSM Q-2
Table Q.4—Encounter Data Completeness Summary for HPSM Q-2
Table Q.5—Encounter Data Accuracy Summary for HPSM Q-4
Table R.1—Medical Record Procurement Status for IEHP R-1
Table R.2—Reasons for Missing Medical Records for IEHP R-1
Table R.3—Medical Record Submission Status for Second Date of Service for IEHP R-2
Table R.4—Encounter Data Completeness Summary for IEHP R-2
Table R.5—Encounter Data Accuracy Summary for IEHP R-4
Table S.1—Medical Record Procurement Status for Kaiser NorCal S-1
Table S.2—Reasons for Missing Medical Records for Kaiser NorCal S-1
Table S.3—Medical Record Submission Status for Second Date of Service for Kaiser NorCal S-2
Table S.4—Encounter Data Completeness Summary for Kaiser NorCal S-2
Table S.5—Encounter Data Accuracy Summary for Kaiser NorCal S-4
Table T.1—Medical Record Procurement Status for Kaiser SoCal T-1
Table T.2—Reasons for Missing Medical Records for Kaiser SoCal T-1
Table T.3—Medical Record Submission Status for Second Date of Service for Kaiser SoCal T-2
Table T.4—Encounter Data Completeness Summary for Kaiser SoCal T-2
Table T.5—Encounter Data Accuracy Summary for Kaiser SoCal T-4
Table U.1—Medical Record Procurement Status for KHS U-1
Table U.2—Medical Record Submission Status for Second Date of Service for KHS U-1
Table U.3—Encounter Data Completeness Summary for KHS U-2
Table U.4—Encounter Data Accuracy Summary for KHS U-3
Table V.1—Medical Record Procurement Status for L.A. Care V-1
Table V.2—Reasons for Missing Medical Records for L.A. Care V-1
Table V.3—Medical Record Submission Status for Second Date of Service for L.A. Care V-2
Table V.4—Encounter Data Completeness Summary for L.A. Care V-2
Table V.5—Encounter Data Accuracy Summary for L.A. Care V-4
Table W.1—Medical Record Procurement Status for Molina W-1
Table W.2—Reasons for Missing Medical Records for Molina W-1
Table W.3—Medical Record Submission Status for Second Date of Service for Molina W-1

Table W.4—Encounter Data Completeness Summary for Molina W-2
Table W.5—Encounter Data Accuracy Summary for Molina W-3
Table X.1—Medical Record Procurement Status for Partnership X-1
Table X.2—Reasons for Missing Medical Records for Partnership X-1
Table X.3—Medical Record Submission Status for Second Date of Service for Partnership X-2
Table X.4—Encounter Data Completeness Summary for Partnership X-2
Table X.5—Encounter Data Accuracy Summary for Partnership X-4
Table Y.1—Medical Record Procurement Status for SFHP Y-1
Table Y.2—Reasons for Missing Medical Records for SFHP Y-1
Table Y.3—Medical Record Submission Status for Second Date of Service for SFHP Y-2
Table Y.4—Encounter Data Completeness Summary for SFHP Y-2
Table Y.5—Encounter Data Accuracy Summary for SFHP Y-4
Table Z.1—Medical Record Procurement Status for SCFHP Z-1
Table Z.2—Reasons for Missing Medical Records for SCFHP Z-1
Table Z.3—Medical Record Submission Status for Second Date of Service for SCFHP Z-2
Table Z.4—Encounter Data Completeness Summary for SCFHP Z-2
Table Z.5—Encounter Data Accuracy Summary for SCFHP Z-4
Table AA.1—Medical Record Procurement Status for SCAN AA-1
Table AA.2—Reasons for Missing Medical Records for SCAN AA-1
Table AA.3—Medical Record Submission Status for Second Date of Service for SCAN AA-2
Table AA.4—Encounter Data Completeness Summary for SCAN AA-2
Table AA.5—Encounter Data Accuracy Summary for SCAN AA-4

Commonly Used Abbreviations and Acronyms

- **CFR**—Code of Federal Regulations
- **CHIP**—Children's Health Insurance Program
- **COHS**—County Organized Health System
- **CP**—Commercial Plan
- **CSA**—California State Auditor
- **DHCS**—California Department of Health Care Services
- **DME**—durable medical equipment
- **E&M**—evaluation and management
- **EDV**—encounter data validation
- **FQHC**—federally qualified health center
- **GMC**—Geographic Managed Care
- **HIPAA**—Health Insurance Portability and Accountability Act of 1996
- **HSAG**—Health Services Advisory Group, Inc.
- **MCMC**—Medi-Cal Managed Care program
- **MCP**—managed care health plan
- **PSP**—population-specific health plan
- **QMED**—quality measures for encounter data
- **RHC**—rural health clinic

1. Executive Summary

Accurate and complete encounter data are critical to assessing quality, monitoring program integrity, and making financial decisions. Therefore, the California Department of Health Care Services (DHCS) requires its contracted Medi-Cal Managed Care program (MCMC) managed care health plans (MCPs) and population-specific health plans (PSPs) (collectively referred to as "plans") to submit high-quality encounter data. Completeness and accuracy of these data are essential to the success of DHCS' overall management and oversight of the MCMC.

In accordance with Title 42 Code of Federal Regulations (CFR) Section (§) 438.358(c)(1), DHCS contracts with Health Services Advisory Group, Inc. (HSAG), to conduct encounter data validation (EDV) studies. DHCS agreed to conduct the EDV study annually in response to findings and recommendations from California State Auditor (CSA) audit 2018-111 (C18-16), *Department of Health Care Services: Millions of Children in Medi-Cal Are Not Receiving Preventive Health Services*.[1] For the 2022–23 contract year, the goal of the EDV study was to continue to examine the completeness and accuracy of the professional encounter data submitted to DHCS by the plans through a review of medical records. HSAG assessed the encounter data submitted by DHCS' 24 MCPs and two PSPs.[2]

Methodology

Medical and clinical records are considered the "gold standard" for documenting access to and quality of health care services. During contract year 2022–23, HSAG evaluated MCMC encounter data completeness and accuracy via a review of medical records for physician services rendered between January 1, 2021, and December 31, 2021. The study answered the following question:

- Are the data elements *Date of Service*, *Diagnosis Code*, *Procedure Code*, *Procedure Code Modifier*, and *Rendering Provider Name*, found on the professional encounters, complete and accurate when compared to information contained within the medical records?

HSAG conducted the following actions to answer the study question:

- Identified the eligible population and generated samples from data extracted from the DHCS data warehouse.
- Assisted the plans to procure medical records from providers, as appropriate.
- Reviewed medical records against DHCS encounter data.
- Calculated study indicators.

[1] Auditor of the State of California. Department of Health Care Services: Millions of Children in Medi-Cal Are Not Receiving Preventive Health Services. March 2019. Available at: Report 2018-111 (ca.gov). Accessed on: Nov 7, 2023.

[2] Refer to Appendix A for a list of plans included in this study.

Key Findings from Medical Record Review

Table 1.1 displays the statewide results for each study indicator. Of note, for the medical record omission rate and encounter data omission rate, lower values indicate better performance.

Table 1.1—Statewide Results for Study Indicators

Rates shaded in gray and denoted with a cross (+) indicate having met the EDV study standards.

— indicates that the study indicator is not applicable for a data element.

*This data element is calculated based on the results from the *Diagnosis Code*, *Procedure Code*, and *Procedure Code Modifier* data elements.

Key Data Elements	Medical Record Omission Rate	Encounter Data Omission Rate	Element Accuracy Rate
EDV Study Standards	Less than 10 percent	Less than 10 percent	More than 90 percent for each data element or 80 percent for all-element accuracy rate
Date of Service	8.6%+	3.7%+	—
Diagnosis Code	11.5%	2.1%+	99.5%+
Procedure Code	19.4%	8.5%+	98.7%+
Procedure Code Modifier	28.3%	5.0%+	99.7%+
Rendering Provider Name	9.1%+	3.6%+	63.6%
All-Element Accuracy	—	—	45.2%
All-Element Accuracy Excluding Rendering Provider Name*	—	—	69.1%

Encounter Data Completeness

Omissions identified in the medical records (services located in the encounter data but not supported in the medical records) and omissions identified in the encounter data (services located in the medical records but not in the encounter data) illustrate discrepancies in completeness of DHCS' encounter data. Overall, DHCS' encounter data were relatively complete for the key data elements when compared to the medical records. Below are relevant findings.

- Two (*Date of Service* and *Rendering Provider Name)* of the five data elements assessed for this study had medical record omission rates (services located in the encounter data but not supported in the medical records) of less than 10 percent, and therefore did meet the EDV study standard. The remaining three data elements were moderately supported by the documentation in the members' medical records with medical record omission rates ranging from 11.5 percent (*Diagnosis Code*) to 28.3 percent (*Procedure Code Modifier*).
- All five data elements shown in Table 1.1 had encounter data omission rates (services located in the medical records but not in the encounter data) of less than 10 percent, indicating they met the EDV study standard.
- Two (*Date of Service* and *Rendering Provider Name)* of the five data elements met the EDV study standard for both the medical record omission rate and the encounter data omission rate.

Encounter Data Accuracy

- Among the four data elements evaluated for accuracy, three data elements (i.e., *Diagnosis Code*, *Procedure Code*, and *Procedure Code Modifier*) had accuracy rates greater than 90 percent, which met the EDV study standard. Statewide, 63.6 percent of rendering provider names identified in the electronic encounter data were supported by medical record documentation.
- Nearly half (45.2 percent) of the dates of service present in both data sources contained matching values for all four key data elements (i.e., *Diagnosis Code*, *Procedure Code*, *Procedure Code Modifier*, and *Rendering Provider Name*). This accuracy rate increased to 69.1 percent when the matched values included only three data elements—*Diagnosis Code*, *Procedure Code*, and *Procedure Code Modifier*.

When comparing the 2022–23 results to the 2021–22 EDV study, the number of statewide rates meeting the EDV study standards increased by three, likely due to the higher medical record procurement rate and more complete rendering provider names in DHCS' encounter data.

Recommendations

While some improvements were made in the completeness and accuracy of DHCS' encounter data when compared to the 2021–22 EDV study, results from the 2022–23 study show continued opportunities for improvement. DHCS should continue to work with the plans to determine ways to improve study results that did not meet the EDV study standards.

2. Overview and Methodology

Overview

Accurate and complete encounter data are critical to assessing quality, monitoring program integrity, and making financial decisions. Therefore, DHCS requires its plans to submit high-quality encounter data. DHCS relies on the quality of the encounter data to accurately and effectively monitor and improve quality of care, establish appropriate performance metrics, generate accurate and reliable reports, and obtain complete and accurate utilization information. The completeness and accuracy of these data are essential to the success of DHCS' overall management and oversight of MCMC.

In accordance with 42 CFR §438.358(c)(1), DHCS contracts with HSAG to conduct EDV studies. In addition to the procedures and quality assurance protocols DHCS maintains internally, according to §438.242, to ensure that enrollee encounter data submitted by the plans give a complete and accurate representation of the services provided to Medi-Cal members under the plans' contracts with the State, the EDV studies HSAG conducts are designed to meet the periodicity schedule required in §438.602(e) for an independent audit of the accuracy, truthfulness, and completeness of encounter data submitted by, or on behalf of, each plan. Note that §438.602(e) originated in the 2016 CHIP and Medicaid Final Rule and is effective for Medicaid managed care contracts started on or after July 1, 2017.[3]

Additionally, DHCS agreed to conduct the EDV study annually in response to findings and recommendations from CSA audit 2018-111 (C18-16), *Department of Health Care Services: Millions of Children in Medi-Cal Are Not Receiving Preventive Health Services*.[4]

Since contract year 2012–13, DHCS has contracted with HSAG to conduct an EDV study. For the 2022–23 contract year, the goal of the EDV study was to continue to examine the completeness and accuracy of the professional encounter data submitted to DHCS by the plans through a review of medical records. HSAG assessed the encounter data submitted by DHCS' 24 MCPs and two PSPs.[5]

---

[3] Medicaid and Children's Health Insurance Program (CHIP) Programs; Medicaid Managed Care, CHIP Delivered in Managed Care, and Revisions Related to Third Party Liability (CHIP and Medicaid Final Rule), (May 6, 2016) Federal Register Document Citation No. 81 FR 27497.

[4] Auditor of the State of California. Department of Health Care Services: Millions of Children in Medi-Cal Are Not Receiving Preventive Health Services. March 2019. Available at: Report 2018-111 (ca.gov). Accessed on: Nov 7, 2023.

[5] Refer to Appendix A for a list of plans included in this study.

Methodology

Medical and clinical records are considered the "gold standard" for documenting access to and quality of health care services. During contract year 2022–23, HSAG evaluated MCMC encounter data completeness and accuracy via a review of medical records for physician services rendered between January 1, 2021, and December 31, 2021. The study answered the following question:

- Are the data elements listed in Table 2.1 for the professional encounter data complete and accurate when compared to information contained within the medical records?

Note: As rendering provider names may not be legibly documented in members' medical records, results for the data element *Rendering Provider Name* should be interpreted with caution.

Table 2.1—Key Data Elements for Medical Record Review

Key Data Element	
Date of Service	Diagnosis Code
Procedure Code	Procedure Code Modifier
Rendering Provider Name	

To answer the study question, HSAG conducted the following actions:

- Identified the eligible population and generated samples from data extracted from the DHCS data warehouse.
- Assisted the plans with the procurement of medical records from providers, as appropriate.
- Reviewed medical records against DHCS encounter data.
- Calculated study indicators.

Study Population

To be eligible for the medical record review, a member had to be continuously enrolled in the same plan during the study period (i.e., between January 1, 2021, and December 31, 2021), and had to have at least one physician visit during the study period. In addition, HSAG excluded members with Medicare or other insurance coverage from the eligible population[6] because DHCS does not have complete encounter data for all services that these members

[6] Note that members enrolled in SCAN Health Plan with Medicare coverage were included in the eligible population because all SCAN Health Plan members are dual eligibles. However, if a SCAN Health Plan member had insurance other than Medi-Cal or Medicare during the study period, the member was excluded.

received. In this report, HSAG refers to "physician visits" as the services that meet all criteria in Table 2.2.

Table 2.2—Criteria for Physician Visits Included in the Study

Data Element	Criteria
Criteria for Claim Type	
Claim Type	Claim Type = "4" (Medical/Physician) or other encounters submitted to DHCS in the 837 professional format
Criteria for Providers	
Provider Type	Certified nurse midwife
	Certified pediatric nurse practitioner and certified family nurse practitioner
	Clinic—otherwise undesignated
	Community clinics
	Group-certified pediatric nurse practitioner and certified family nurse practitioner
	Licensed clinical social worker—individual
	Licensed professionals
	Licensed professional clinical counselor—individual
	Marriage and family therapist—individual
	Multi-specialty clinics
	Physicians
	Physicians group
	Podiatrists
	Rural health clinics (RHCs) and federally qualified health centers (FQHCs)
	Unknown when billing provider is Kaiser for Kaiser NorCal, Kaiser SoCal, and Kaiser's plan partners (i.e., AAH, CalOptima, CCAH, CCHP, GCHP, HPSJ, HPSM, IEHP, KHS, L.A. Care, Partnership, SFHP, and SCFHP). Please see Appendix A for full plan names.

Data Element	Criteria
OR	
Primary care providers based on the 274 provider data[7]	PROV_PRIMARYCARE_PHYSICIAN = "true" and LICENSURE_TYPE is "MD" or "NPA"
OR	
Specialists based on the 274 provider data	PROV_SPECIALIST = "true" and LICENSURE_TYPE = "MD"
Criteria for Place of Service	
Place of Service	Assisted living facility
	Emergency room (hospital)
	FQHC
	Group home
	Home
	Independent clinic
	Office
	Public health clinic
	RHC
	Telehealth
	Urgent care facility
Criteria for Procedure Code	
Procedure Code	If all detail lines for a visit had the following procedure codes, the visit was excluded from the study since these procedure codes are for services outside the scope of work for this study (e.g., durable medical equipment [DME], dental, vision, and ancillary providers). ♦ A procedure code starting with "B," "E," "D," "K," or "V" ♦ Procedure codes A0021 through A0999 (i.e., codes for transportation services) ♦ Procedure codes A4206 through A9999 (i.e., codes for medical and surgical supplies, miscellaneous, and investigational)

[7] The 274 provider data refer to the provider network data submitted to DHCS by plans using the X12 Healthcare Provider Information Transaction Set (274).

Data Element	Criteria
	♦ Procedure codes T4521 through T4544 (i.e., codes for incontinence supplies) ♦ Procedure codes L0112 through L4631 (i.e., codes for orthotic devices and procedures) ♦ Procedure codes L5000 through L9900 (i.e., codes for prosthetic devices and procedures) ♦ Procedure codes with "F" as the fifth character

Sampling Strategy

HSAG used a two-stage technique to select samples based on the member enrollment and the encounter data extracted from the DHCS data warehouse. HSAG first identified all members who met the study population eligibility criteria. HSAG then randomly selected 411 members[8] from the eligible population for each of the 26 participating plans. Then, for each selected sampled member, HSAG used the SURVEYSELECT procedure in SAS®[9] to randomly select one physician visit[10] that occurred in the study period (i.e., between January 1, 2021, and December 31, 2021). Additionally, to evaluate whether any dates of service were omitted from DHCS' encounter data, HSAG reviewed a second date of service selected by the same provider's office as that for the sampled date of service. While handling medical records for the sampled date of service, the providers selected a second date of service closest to the selected date of service from the medical records for each sampled member. If a sampled member did not have a second visit with the same provider during the review period, HSAG evaluated only one date of service for that member.

HSAG selected an equal number of cases from each plan to ensure an adequate sample size when reporting rates at the plan level; therefore, adjustments were required to calculate the statewide rates to account for population differences among plans. When reporting statewide rates, HSAG weighted each plan's raw rates based on the volume of physician visits among the eligible population for each plan. This approach ensured that no plan was over- or underrepresented in the statewide rates.

[8] The sample size of 411 is based on a 95 percent confidence level and a margin of error of 5 percent for potential plan-to-plan comparisons. When there were less than 411 eligible members for a plan, HSAG selected all eligible members.

[9] SAS and all other SAS Institute Inc. product or service names are registered trademarks or trademarks of SAS Institute Inc. in the USA and other countries. ® indicates USA registration.

[10] To ensure that the medical record review includes all services provided on the same date of service, encounters with the same date of service and same rendering provider were consolidated into one visit for sampling.

Medical Record Procurement

Once the methodology was finalized, HSAG conducted a meeting with the plans to introduce the study and inform the plans about the medical record procurement process. During the meeting, HSAG also shared sample documents, including a sample list and medical record tracking sheets to assist the plans with planning for medical record procurement.

HSAG submitted the final sample lists to the plans on February 16, 2023. Upon receiving the final sample lists, the plans began procuring from contracted providers the sampled members' medical records for services that occurred during the study period. The plans subsequently submitted the documentation to HSAG. To improve the procurement rate, HSAG conducted another technical assistance meeting with participating plans to review the EDV project and the procurement protocols. The plans were instructed to submit medical records electronically via a secure file transfer protocol site to ensure the protection of personal health information. During the procurement process, between February 2023 and May 2023, HSAG worked with the plans to answer questions and monitor the number of medical records submitted. HSAG provided two intermediate submission updates to the plans during the procurement period (one update on April 3, 2023, and one update on May 3, 2023) and a final submission status update following completion of the procurement period.

HSAG maintained all received electronic medical records on a secure site, which allowed HSAG's trained reviewers to validate the cases from a centralized location under supervision and oversight. As with all medical record review and research activities, HSAG has implemented a thorough Health Insurance Portability and Accountability Act of 1996 (HIPAA) compliance and protection program in accordance with federal regulations which includes recurring training as well as policies and procedures that address physical security, electronic security, and day-to-day operations.

Review of Medical Records

Concurrent with medical record procurement activities, HSAG developed detailed training documents for medical record review, trained review staff on specific study protocols, and conducted interrater reliability and rater-to-standard testing. All reviewers were required to achieve a 95 percent accuracy rate prior to reviewing medical records and collecting data for the study.

HSAG's trained reviewers first verified whether the sampled date of service from the DHCS encounter data could be found in the member's medical record. If found, the reviewers documented that the date of service was valid; if not found, the reviewers reported the date of service as a *medical record omission*. The reviewers then reviewed the services provided on the selected date of service and validated the key data elements listed in Table 2.1. All reviewers entered their findings into an electronic tool to ensure data integrity.

After the reviewers evaluated the sampled date of service, they determined if the medical record contained documentation for a second date of service in the study period. If the documentation for a second date of service was available, the reviewers evaluated the services rendered on this date and validated the key data elements associated with the second date of service. If the documentation contained more than one second date of service, the reviewers selected the date closest to the sampled date of service to validate. If the second date of service was missing from DHCS' encounter data, it was reported as an *encounter data omission,* and the missing values associated with this visit were listed as an omission for each key data element, respectively.

Study Indicators

Once HSAG's trained reviewers completed the medical record review, HSAG analysts exported the information collected from the electronic tool, reviewed the data, and conducted the analyses. Table 2.3 displays the study indicators used to report the medical record review results.

Table 2.3—Study Indicators

Study Indicator	Denominator	Numerator
Medical Record Procurement Rate: Percentage of medical records submitted and the reasons for missing medical records.	Total number of samples.	Number of samples with medical records submitted for either the sampled date of service or the second date of service.
Second Date of Service Submission Rate: Percentage of samples with a second date of service submitted in the medical records.	Number of samples with medical records submitted for either the sampled date of service or the second date of service.	Number of samples with a second date of service submitted in the medical records.
Medical Record Omission Rate: Percentage of key data elements (e.g., *Date of Service*) identified in DHCS' encounter data that are not found in the members' medical records. HSAG will calculate the study indicator for each key data element listed in Table 2.1.	Total number of key data elements (e.g., *Date of Service*) identified in DHCS' encounter data (i.e., based on the sample dates of service and the second dates of service that are found in DHCS' encounter data).	Number of key data elements (e.g., *Date of Service*) in the denominator but not found in the medical records.

Study Indicator	Denominator	Numerator
Encounter Data Omission Rate: Percentage of key data elements (e.g., *Date of Service*) identified in members' medical records but not found in DHCS' encounter data. HSAG will calculate the study indicator for each key data element listed in Table 2.1.	Total number of key data elements (e.g., *Date of Service*) identified in members' medical records (i.e., based on the medical records procured for the sample dates of service and second dates of service).	Number of key data elements (e.g., *Date of Service*) in the denominator but not found in DHCS' encounter data.
Diagnosis Code Accuracy: Percentage of diagnosis codes supported by the medical records and the associated reasons for inaccuracy including specificity errors and inaccurate codes.	Total number of diagnosis codes that meet the following two criteria: ♦ For dates of service (i.e., including both the sample dates of service and the second dates of service) that exist in both DHCS' encounter data and the medical records. ♦ Diagnosis codes present for both DHCS' encounter data and the medical records.	Number of diagnosis codes supported by the medical records.
Procedure Code Accuracy: Percentage of procedure codes supported by the medical records and the associated reasons for inaccuracy including inaccurate codes, higher levels of service found in medical records, and lower levels of service found in medical records.	Total number of procedure codes that meet the following two criteria: ♦ For dates of service (i.e., including both the sample dates of service and the second dates of service) that exist in both DHCS' encounter data and the medical records. ♦ Procedure codes present for both DHCS' encounter data and the medical records.	Number of procedure codes supported by the medical records.

Study Indicator	Denominator	Numerator
Procedure Code Modifier Accuracy: Percentage of procedure code modifiers supported by the medical records.	Total number of procedure code modifiers that meet the following two criteria: ♦ For dates of service (i.e., including both the sample dates of service and the second dates of service) that exist in both DHCS' encounter data and the medical records. ♦ Procedure code modifiers present for both DHCS' encounter data and the medical records.	Number of procedure code modifiers supported by the medical records.
Rendering Provider Name Accuracy: Percentage of rendering provider names supported by the medical records and the associated reasons for inaccuracy including incorrect names and illegible names.	Total number of rendering provider names that meet the following two criteria: ♦ For dates of service (i.e., including both the sample dates of service and the second dates of service) that exist in both DHCS' encounter data and the medical records. ♦ Rendering provider names present for both DHCS' encounter data and the medical records.	Number of rendering provider names supported by the medical records. If the rendering provider name from DHCS' encounter data approximately matches the name in the medical record (e.g., a typographical error or "Rob Smith" versus "Robert Smith"), HSAG considers the names from both sources a match.
All-Element Accuracy Rate with Rendering Provider Name: Percentage of dates of service present in both DHCS' encounter data and the medical records, with the same values for all key data elements listed in Table 2.1.	Total number of dates of service (i.e., including both the sample dates of service and second dates of service) that are in both DHCS' encounter data and the medical records.	The number of dates of service in the denominator with the same diagnosis codes, procedure codes, procedure code modifiers, and rendering provider names for a given date of service.

Study Indicator	Denominator	Numerator
All-Element Accuracy Rate without Rendering Provider Name: Percentage of dates of service present in both DHCS' encounter data and the medical records, with the same values for all key data elements listed in Table 2.1 except the *Rendering Provider Name* field.	Total number of dates of service (i.e., including both the sample dates of service and second dates of service) that are in both DHCS' encounter data and the medical records.	The number of dates of service in the denominator with the same diagnosis codes, procedure codes, and procedure code modifiers for a given date of service.

HSAG used the standards listed in Table 2.4 to evaluate the plans' performance.

Table 2.4—Standards for Study Indicators

* The standards for these study indicators are based on the statement "Fewer than 10% of the visits identified in medical records are unmatched to DHCS encounter data; AND fewer than 10% of the DHCS encounter data are unmatched to the medical records" from QMED for measure DCMT.003.[11]

** The standard for this indicator is based on the statement "No less than 80% of matched records have all key data elements matching between the medical records and the encounter data" from QMED for measure DAMT.001.[12]

Study Indicator	Standards
Medical record procurement rate	More than 90 percent*
Second of date of service submission rate	Informational only
Medical record omission rate	Less than 10 percent*
Encounter data omission rate	Less than 10 percent*
Data element accuracy rate	More than 90 percent*
All-element accuracy rate	More than 80 percent**

[11] California Department of Health Care Services, Managed Care Quality and Monitoring Division. *Quality Measures for Encounter Data—Version 1.1*; August 8, 2018. Available at: https://www.dhcs.ca.gov/formsandpubs/Documents/MMCDAPLsandPolicyLetters/APL2014/DHCSQualityMeasuresforEncounterData.pdf. Accessed on: Nov 7, 2023.

[12] Ibid.

This report displays numerical results for study indicators except in the following two scenarios:

- If the numerator falls below 11, this report displays "S" for the numerator and rate. HSAG suppresses displaying the rate in this report to satisfy the HIPAA Privacy Rule's de-identification standard.

3. Medical Record Review Results

Medical Record Procurement Status

After receiving their sample files, the plans were responsible for procuring the medical records from their contracted providers. Table 3.1 shows the medical record procurement status (i.e., submitting medical records for either the sampled date of service or the second date of service) for each plan. For ease of reference, HSAG uses plan abbreviations in this report. The names and abbreviations for all plans included in the study are shown in Appendix A.

Table 3.1—Medical Record Procurement Status

Note: Medical record procurement rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

Plan	Initial Sample Size	Number of Records Submitted	Percentage of Records Submitted
AAH	411	342	83.2%
AHF	315	275	87.3%
Aetna	411	180	43.8%
Anthem Blue Cross	411	395	96.1%+
Blue Shield Promise	411	404	98.3%+
CCAH	411	402	97.8%+
CCHP	411	352	85.6%
CHG	411	383	93.2%+
CHW	411	351	85.4%
CalOptima	411	398	96.8%+
CalViva	411	327	79.6%
CenCal	411	404	98.3%+
GCHP	411	184	44.8%
HPSJ	411	393	95.6%+
HPSM	411	402	97.8%+
Health Net	411	316	76.9%
IEHP	411	397	96.6%+

Plan	Initial Sample Size	Number of Records Submitted	Percentage of Records Submitted
KHS	411	411	100.0%+
Kaiser NorCal	411	410	99.8%+
Kaiser SoCal	411	410	99.8%+
L.A. Care	411	361	87.8%
Molina	411	395	96.1%+
Partnership	411	397	96.6%+
SCAN	411	326	79.3%
SCFHP	411	394	95.9%+
SFHP	411	349	84.9%
Statewide Total	**10,590**	**9,358**	**88.4%**

Overall, the statewide medical record submission rate was 88.4 percent. A total of 26 plans submitted medical records, and 15 plans had a submission rate greater than the EDV standard of 90 percent. Two plans (Aetna and GCHP) had a submission rate lower than 50.0 percent. The submission rates ranged from 43.8 percent (Aetna) to 100.0 percent (KHS).

Cases without medical records contributed to higher (i.e., poorer) medical record omission rates shown throughout the report. For example, if medical records were not submitted for a sampled date of service, all data elements (i.e., *Date of Service*, *Diagnosis Code*, *Procedure Code*, *Procedure Code Modifier*, and *Rendering Provider Name*) associated with that date of service were scored as medical record omissions. Therefore, the plans with lower medical record submission rates would be expected to have higher (i.e., poorer) medical record omission rates for each key data element.

Table 3.2 lists the reasons for missing medical records at the statewide level.

Table 3.2—Reasons for Missing Medical Records

Non-Submission Reason	Count	Percent
Non-responsive provider or provider did not respond in a timely manner.	675	54.8%
Member was a patient of the practice; however, no documentation was available for requested dates of service.	203	16.5%
Member was not a patient of the practice.	152	12.3%
Medical records were not located at the facility.	79	6.4%

Non-Submission Reason	Count	Percent
Provider refused to release medical records.	68	5.5%
Other.	28	2.3%
Closed facility.	27	2.2%
Total	**1,232**	**100.0%**

Table 3.2 shows the top reason for missing medical records was "Non-responsive provider or provider did not respond in a timely manner," accounting for over half (54.8 percent) of the medical records that were not submitted. This could indicate the that plans have incorrect provider information or that the contacted providers were unaware of the submission requirements or submission deadline. In addition, among the two plans with the lowest medical record submission rates, this same reason accounted for 91.2 percent and 69.7 percent of the non-submissions for GCHP and Aetna, respectively. The second most common non-submission reason was "Member was a patient of the practice; however, no documentation was available for requested dates of service." This could indicate inconsistencies between the information stored in the provider's office versus DHCS' encounter data or that an encounter was submitted to DHCS even though a member did not access care. The third most common non-submission reason was "Member was not a patient of the practice." The three plans that contributed the most cases to this reason were Health Net, CalViva, and CHW with 52 cases, 41 cases, and 27 cases, respectively. Again, this could indicate inconsistencies between the information stored in the provider's office versus DHCS' encounter data.

Table 3.3 displays the number and percent of cases with one additional date of service selected and submitted for the study.

Table 3.3—Medical Record Submission Status for Second Date of Service

Plan	Number of Records Submitted	Number of Records with Second Date of Service	Percentage
AAH	342	227	66.4%
AHF	275	219	79.6%
Aetna	180	65	36.1%
Anthem Blue Cross	395	260	65.8%
Blue Shield Promise	404	282	69.8%
CCAH	402	236	58.7%
CCHP	352	235	66.8%
CHG	383	241	62.9%

Plan	Number of Records Submitted	Number of Records with Second Date of Service	Percentage
CHW	351	162	46.2%
CalOptima	398	224	56.3%
CalViva	327	158	48.3%
CenCal	404	246	60.9%
GCHP	184	121	65.8%
HPSJ	393	179	45.5%
HPSM	402	178	44.3%
Health Net	316	158	50.0%
IEHP	397	107	27.0%
KHS	411	254	61.8%
Kaiser NorCal	410	348	84.9%
Kaiser SoCal	410	358	87.3%
L.A. Care	361	216	59.8%
Molina	395	249	63.0%
Partnership	397	249	62.7%
SCAN	326	165	50.6%
SCFHP	394	252	64.0%
SFHP	349	211	60.5%
Statewide Total	**9,358**	**5,600**	**59.8%**

Overall, 59.8 percent of procured medical records contained a second date of service. The individual plan submission rates ranged from 27.0 percent (IEHP) to 87.3 percent (Kaiser SoCal). A 100 percent submission rate is not expected for the second date of service as a member may not have had a second date of service within the review period. However, IEHP's low submission rate (27.0 percent) may indicate potential issues during procurement (e.g., the provider did not follow the instructions to submit the second date of service, or the plan did not properly communicate procurement instructions to the providers).

Encounter Data Completeness

HSAG evaluated encounter data completeness by identifying differences between the electronic encounter data and the members' medical records. Medical record omission and encounter data omission represent two aspects of encounter data completeness. A medical record omission occurs when an encounter data element (e.g., *Date of Service* or *Diagnosis Code*) is not supported by documentation in a member's medical record or the medical record could not be found. Medical record omissions suggest opportunities for improvement within the provider's internal processes, such as billing processes and record documentation.

An encounter data omission occurs when an encounter data element (e.g., *Date of Service* or *Diagnosis Code*) is found in a member's medical record but is not present in the electronic encounter data. Encounter data omissions suggest opportunities for improvement in the submission of claims and encounters or processing procedures among the providers, plans, and DHCS.

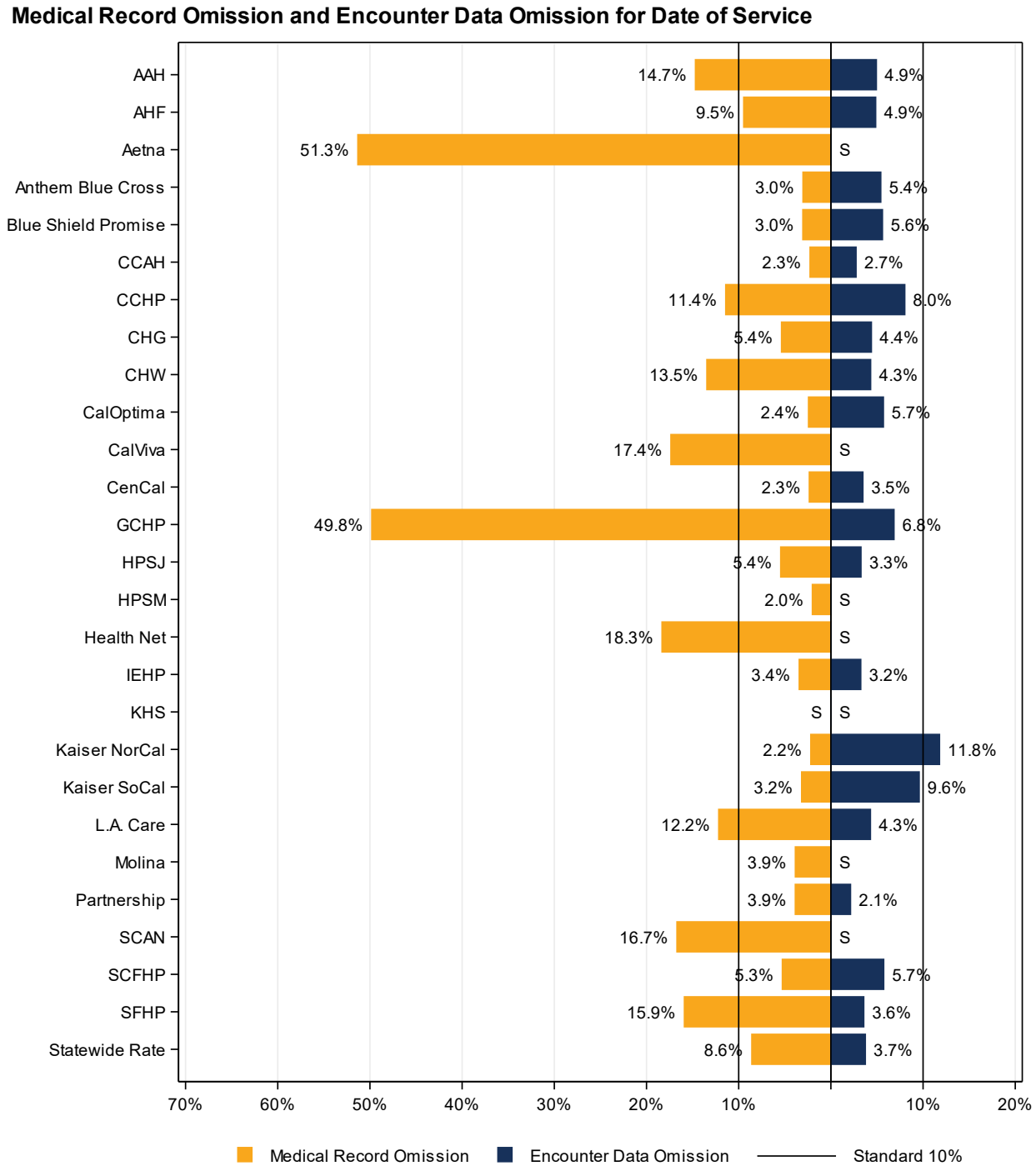
HSAG evaluated the medical record omission rates and the encounter data omission rates for each plan using the date of service selected by HSAG and an additional date of service selected by the provider, if one was available. If more than one additional date of service was available from the medical record, the provider was instructed to select the one closest to HSAG's selected date of service. For both rates, lower values indicate better performance.

Date of Service Completeness

Figure 3.1 displays the statewide and plan-level medical record omission and encounter data omission rates for the *Date of Service* data element. HSAG conducted the analyses at the date of service level.

Figure 3.1—Medical Record Omission and Encounter Data Omission for Date of Service

Note: Omission rates of less than 10 percent indicate the plan met the EDV study standard. "S" indicates that the numerator for this indicator was less than 11; therefore, this report suppresses the rate to satisfy the HIPAA Privacy Rule's de-identification standard.



Key findings for the medical record omission rates:

- Statewide, 8.6 percent of the dates of service in the electronic encounter data were not supported by members' medical records (i.e., medical record omission). This rate met the EDV study standard shown in Table 2.4.
- The medical record omission rates ranged from 2.0 percent (HPSM) to 51.3 percent (Aetna) among non-suppressed rates.
- Overall, 16 of the 26 plans (61.5 percent) met the EDV study standard.
- Of the 10 plans that did not meet the EDV study standard, all had medical record submission rates of less than 90 percent (i.e., they did not meet the medical record submission standard). In general, a plan with a relatively low medical record submission rate would have a relatively high medical record omission rate (i.e., poor performance) for each data element.

Key findings for the encounter data omission rates:

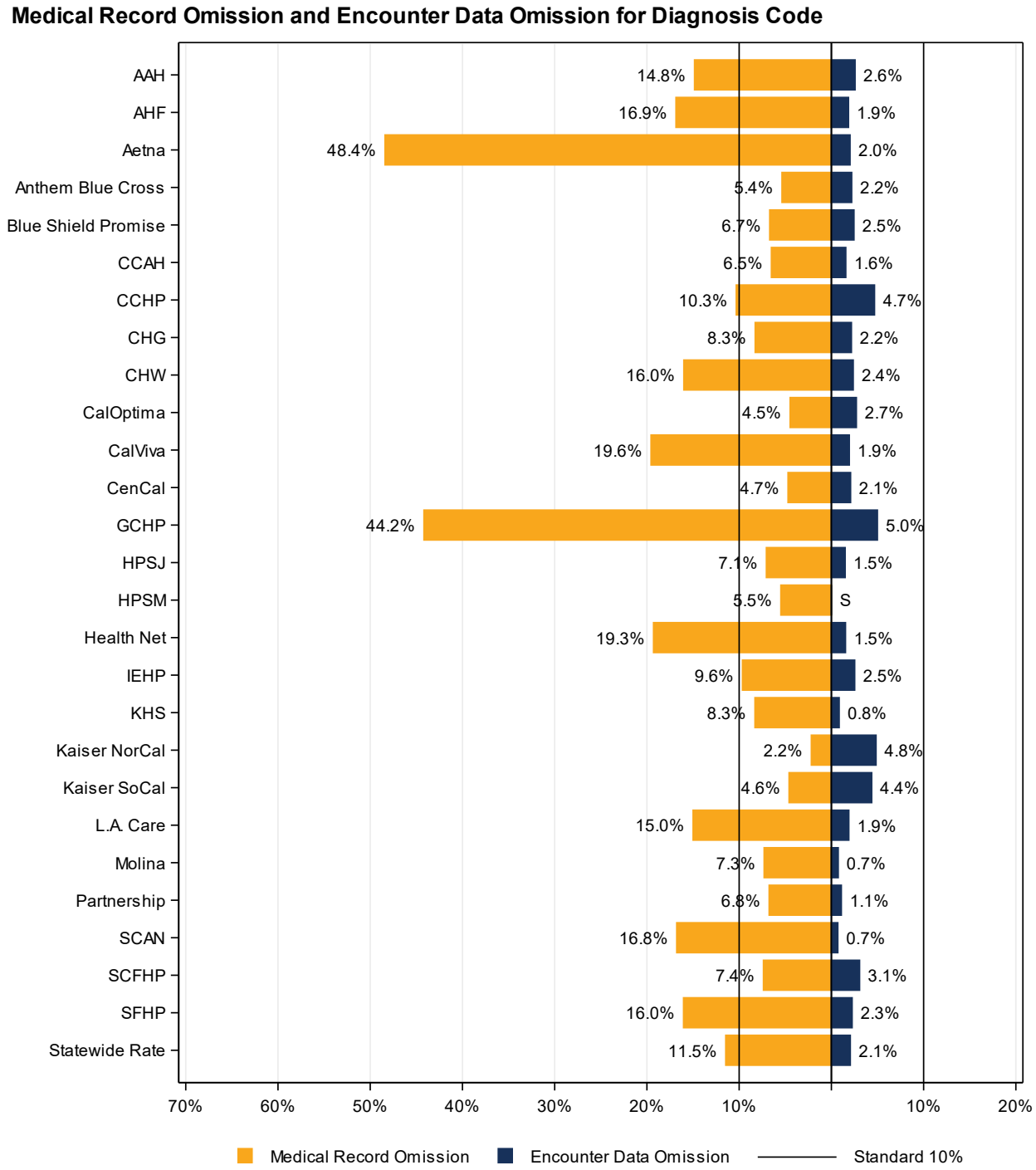
- Statewide, 3.7 percent of the dates of service in the medical records were not found in the electronic encounter data (i.e., encounter data omission). This rate met the EDV study standard shown in Table 2.4.
- Overall, 25 of the 26 plans (96.2 percent) met the study standard. The encounter data omission rates ranged from 2.1 percent (Partnership) to 11.8 percent (Kaiser NorCal) among non-suppressed rates.
- The denominator for the encounter data omission rate is the number of dates of service identified in the medical records, and the numerator is the number of dates of service with no evidence of submission in the electronic encounter data. If no second date of service was available in the medical records for validation, then no date of service would have contributed to the numerator. Table 3.3 shows that IEHP had a relatively low submission rate (27.0 percent) for the second date of service. Therefore, all IEHP encounter data omission rates in the report should be interpreted with caution.

Diagnosis Code Completeness

Figure 3.2 displays the statewide and plan-level medical record omission and encounter data omission rates for the *Diagnosis Code* data element. HSAG conducted the analyses at the diagnosis code level.

Figure 3.2—Medical Record Omission and Encounter Data Omission for Diagnosis Code

Note: Omission rates of less than 10 percent indicate the plan met the EDV study standard. "S" indicates that the numerator for this indicator was less than 11; therefore, this report suppresses the rate to satisfy the HIPAA Privacy Rule's de-identification standard.



Key findings for the medical record omission rates:

- Statewide, 11.5 percent of the diagnosis codes in the electronic encounter data had no supporting documentation in the members' medical records (i.e., medical record omission). Non-submitted medical records accounted for 66.2 percent of the diagnosis codes omitted from the medical records. In the analysis, when no medical records were submitted for a sampled date of service, all diagnosis codes associated with that date of service were treated as medical record omissions. Of the remaining diagnosis codes that were omitted from the medical records, 53.1 percent were "Z" diagnosis codes (i.e., codes used when circumstances other than disease, injury, or external cause classifiable to categories A00-Y89 and are recorded as "diagnosis" or "problems," such as health hazards related to socioeconomic or psychosocial circumstances). Among the "Z" codes, the dominant sub-category was for "Persons encountering health services for examinations," accounting for approximately 37.6 percent of the "Z" codes.
- The medical record omission rates ranged from 2.2 percent (Kaiser NorCal) to 48.4 percent (Aetna).
- Overall, 15 of the 26 plans (57.7 percent) met the EDV study standard.

Key findings for the encounter data omission rate:

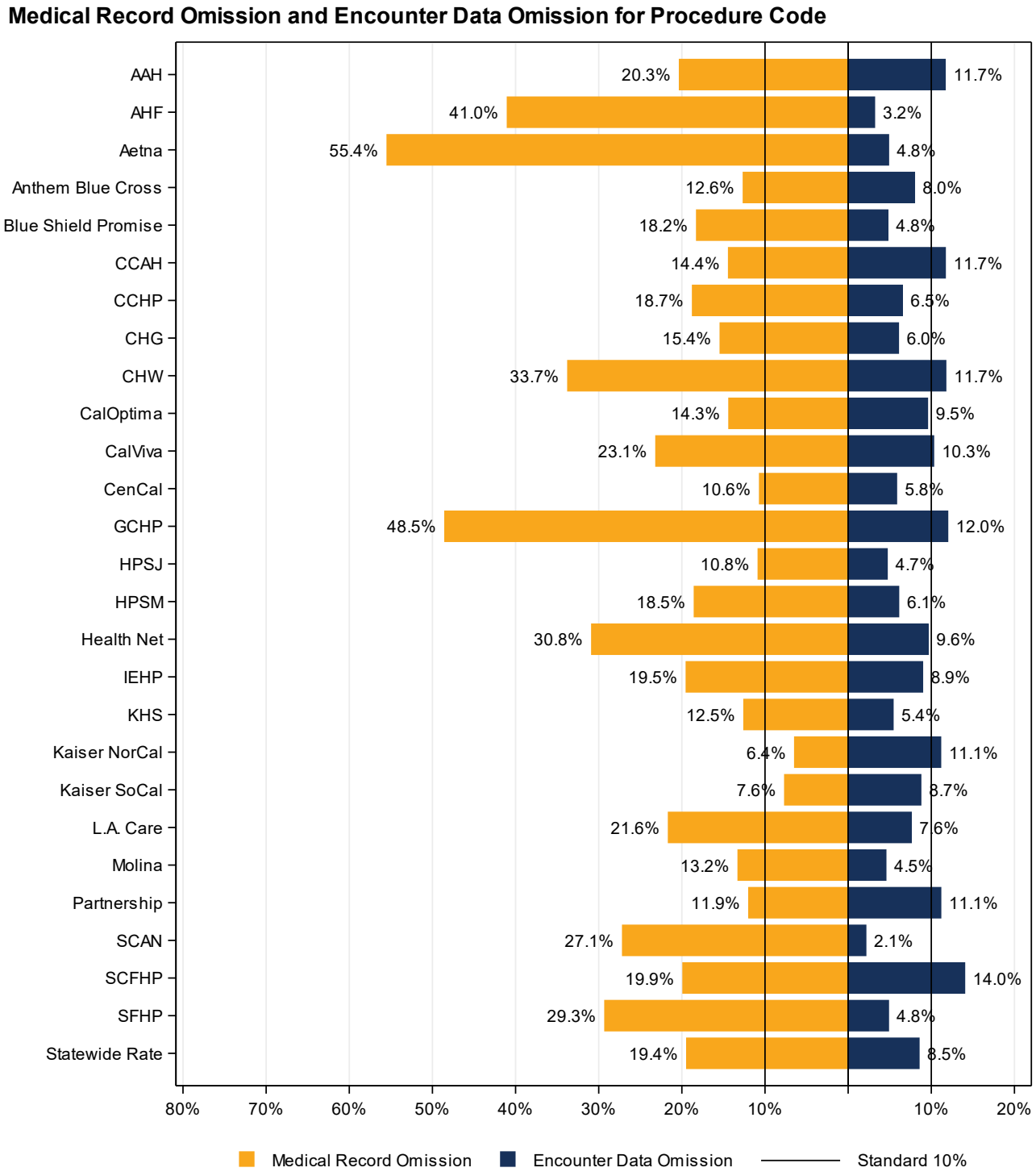
- Statewide, 2.1 percent of the diagnosis codes identified in the medical record were not found in the electronic encounter data (i.e., encounter data omission).
- The encounter data omission rates ranged from 0.7 percent (Molina and SCAN) to 5.0 percent (GHCP) among non-suppressed rates.
- All plans met the EDV study standard.

Procedure Code Completeness

Figure 3.3 displays the statewide and plan-level medical record omission and encounter data omission rates for the *Procedure Code* data element. HSAG conducted the analyses at the procedure code level.

Figure 3.3—Medical Record Omission and Encounter Data Omission for Procedure Code

Note: Omission rates of less than 10 percent indicate the plan met the EDV study standard.



Key findings for the medical record omission rates:

- Statewide, 19.4 percent of the procedure codes in the electronic data were not supported by the members' medical records (i.e., medical record omission).
- The medical record omission rates ranged from 6.4 percent (Kaiser NorCal) to 55.4 percent (Aetna).
- Only two of the 26 plans (7.7 percent) met the EDV study standard.
- In the analysis, when no medical records were submitted for a sampled date of service, all procedure codes associated with that date of service were treated as medical record omissions. Non-submitted medical records accounted for 43.6 percent of the procedure codes omitted from the medical records.
- Other potential contributors to the *Procedure Code* medical record omissions are listed below:
  - The provider did not document the services performed in the medical record, despite submitting the procedure code to the plan.
  - The provider did not perform the service that was submitted to DHCS.
  - Due to possible inclusion of the adjudication history, DHCS' encounter data contained additional procedure codes which should not have been included for comparison with the medical records.

Key findings for the encounter data omission rates:

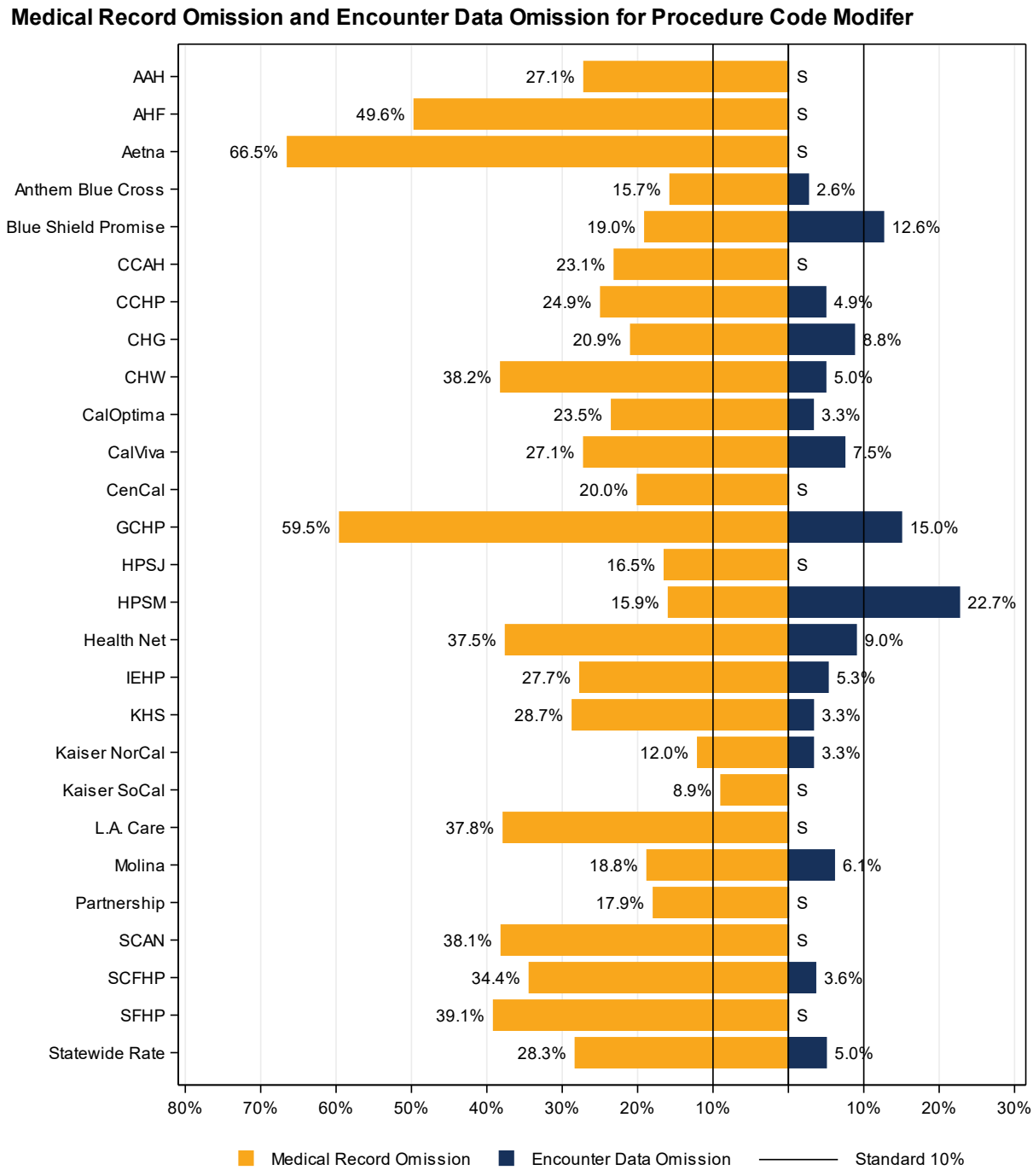
- Statewide, 8.5 percent of the procedure codes identified in the medical records were not present in the electronic data (i.e., encounter data omission).
- The encounter data omission rates ranged from 2.1 percent (SCAN) to 14.0 percent (SCFHP).
- Overall, 18 of the 26 plans (69.2 percent) met the EDV study standard.
- Approximately 31.7 percent of the procedure codes that were omitted from the electronic encounter data were due to the associated dates of service being omitted from the electronic encounter data.
- The other potential contributors to the *Procedure Code* encounter data omissions were as follows:
  - The provider made a coding error or did not submit the procedure code despite performing the service.
  - Deficiencies existed from the plan's resubmissions of denied or rejected encounters to DHCS. For example, if DHCS rejected certain encounters or lines and the plan did not resubmit them, procedure codes associated with these encounters or lines would have contributed to the *Procedure Code* encounter data omissions.
  - A lag occurred between the time the provider performed the service and the submission of the encounter to the plan and/or DHCS.

Procedure Code Modifier Completeness

Figure 3.4 displays the statewide and plan-level medical record omission and encounter data omission rates for the *Procedure Code Modifier* data element. HSAG conducted the analyses at the procedure code modifier level.

Figure 3.4—Medical Record Omission and Encounter Data Omission for Procedure Code Modifier

Note: Omission rates of less than 10 percent indicate the plan met the EDV study standard. "S" indicates that the numerator for this indicator was less than 11; therefore, this report suppresses the rate to satisfy the HIPAA Privacy Rule's de-identification standard.



Key findings for the medical record omission rates:

- Statewide, 28.3 percent of the procedure code modifiers in the electronic encounter data were not supported by the members' medical records (i.e., medical record omission).
- The medical record omission rates ranged from 8.9 percent (Kaiser SoCal) to 66.5 percent (Aetna).
- Only one plan (Kaiser SoCal) met the EDV study standard.
- In the analysis, when no medical records were submitted for a sampled date of service, all procedure code modifiers associated with that date of service were treated as medical record omissions. Non-submitted medical records accounted for 39.9 percent of the procedure code modifiers omitted from the medical records.
- Other potential contributors to *Procedure Code Modifier* medical record omissions included the following:
  - Procedure codes associated with modifiers were omitted from the medical records.
  - Providers did not document the evidence related to the modifiers in the medical records despite submitting the modifiers to the plans.
  - Due to the possible inclusion of the adjudication history, DHCS' encounter data contained additional procedure codes and associated modifiers which should not have been included for comparison with the medical records.

Key findings for the encounter data omission rates:

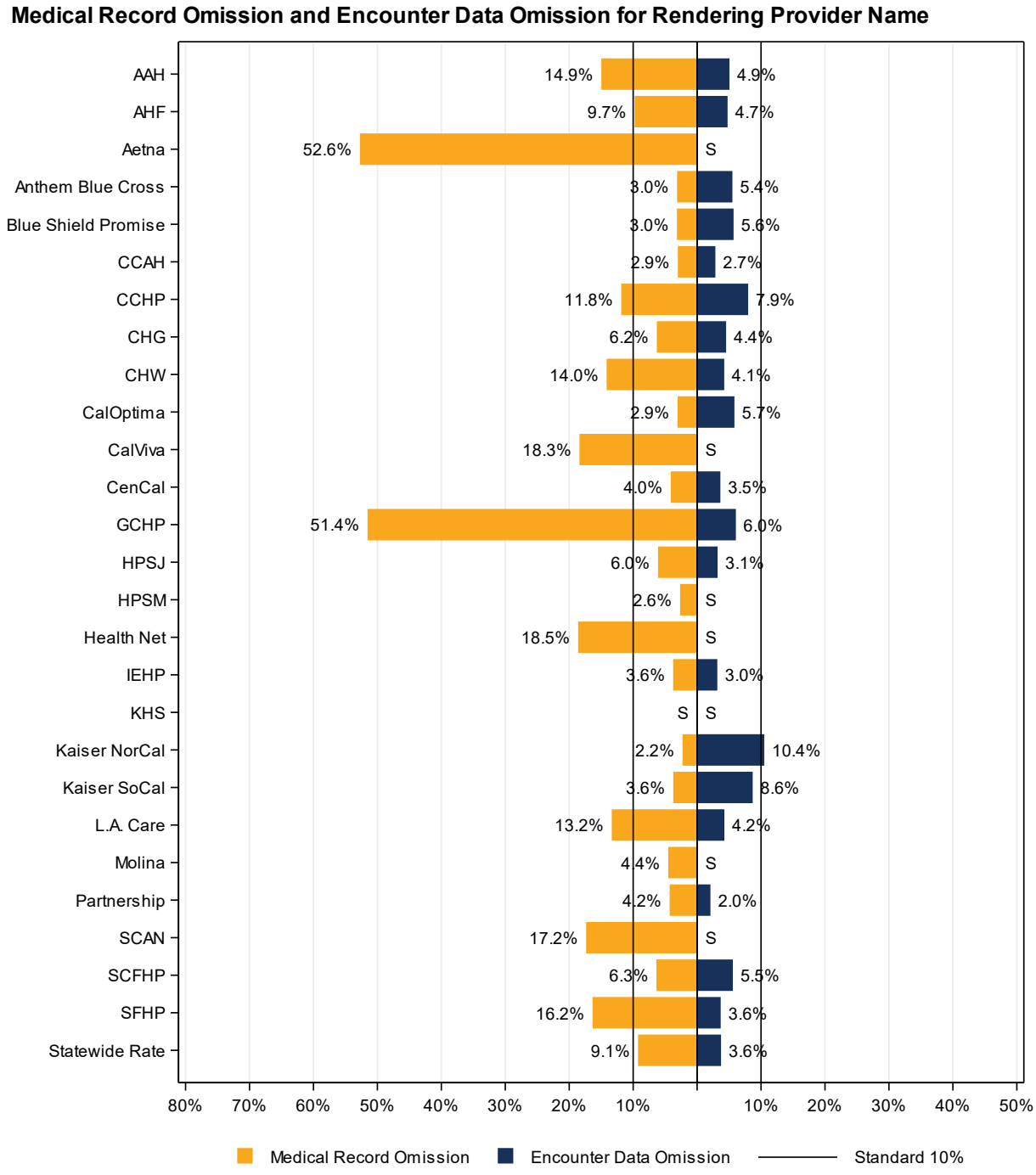
- Statewide, 5.0 percent of the procedure code modifiers identified in the medical records were not present in the electronic encounter data (i.e., encounter data omission).
- The encounter data omission rates ranged from 2.6 percent (Anthem Blue Cross) to 22.7 percent (HPSM) among non-suppressed rates.
- Overall, 23 of the 26 plans (88.5 percent) met the EDV study standard.
- The procedure code modifier most frequently found in the medical records but omitted from the electronic encounter data was "95" (telemedicine), which accounted for 92.0 percent of the omissions.
- Potential contributors to the *Procedure Code Modifier* encounter data omissions included the following:
  - Dates of service were omitted from the encounter data; therefore, all procedure code modifiers associated with those dates of service were treated as encounter data omissions.
  - Procedure codes were omitted from the encounter data; therefore, all procedure code modifiers corresponding to those procedure codes were treated as encounter data omissions.
  - The provider made a coding error or did not submit the procedure code modifiers despite performing the specific services.

Rendering Provider Name Completeness

Figure 3.5 displays the statewide and plan-level medical record omission and encounter data omission rates for the *Rendering Provider Name* data element.

Figure 3.5—Medical Record Omission and Encounter Data Omission for Rendering Provider Name

Note: Omission rates of less than 10 percent indicate the plan met the EDV study standard. "S" indicates that the numerator for this indicator was less than 11; therefore, this report suppresses the rate to satisfy the HIPAA Privacy Rule's de-identification standard.



Key findings for the medical record omission rates:

- Statewide, 9.1 percent of the rendering provider names associated with the electronic encounter data were not found in the medical records (i.e., medical record omissions). The primary reason for the omission of rendering provider names from the medical records was that the medical records were not submitted for the study. In the analysis, when a medical record was not submitted for a sampled date of service, the rendering provider name associated with that date of service was treated as a single medical record omission.
- The medical record omission rates ranged from 2.2 percent (Kaiser NorCal) to 52.6 percent (Aetna) among non-suppressed rates.
- Overall, 16 of the 26 plans (61.5 percent) met the EDV study standard.

Key findings for the encounter data omission rates:

- Statewide, 3.6 percent of the rendering provider names in the medical records were not found in the DHCS data warehouse (i.e., encounter data omission).
- The encounter data omission rates ranged from 2.0 percent (Partnership) to 10.4 percent (Kaiser NorCal) among non-suppressed rates.
- Overall, 25 of the 26 plans (96.2 percent) met the EDV study standard.
- Potential contributors to the *Rendering Provider Name* encounter data omissions included the following:
  - Dates of service were omitted from the encounter data; therefore, all rendering provider names associated with those dates of service were treated as encounter data omissions.
  - The plans did not populate the rendering provider identification number field or populated the field with an invalid rendering provider identification number when submitting data to DHCS; therefore, the rendering provider names were not identifiable in the DHCS data warehouse.
  - The provider files submitted to DHCS by the plans were incomplete or inaccurate; therefore, the rendering provider names could not be cross-referenced in the DHCS data warehouse although the rendering provider identification numbers in the encounter data were valid.

Encounter Data Accuracy

Encounter data accuracy was evaluated for dates of service that existed in both the electronic encounter data and the medical records and which had values present in both data sources for the evaluated data element. HSAG considered the encounter data elements (e.g., *Diagnosis Code* and *Procedure Code*) accurate if documentation in the medical record supported the values contained in the electronic encounter data. Higher accuracy rates for each data element indicate better performance.

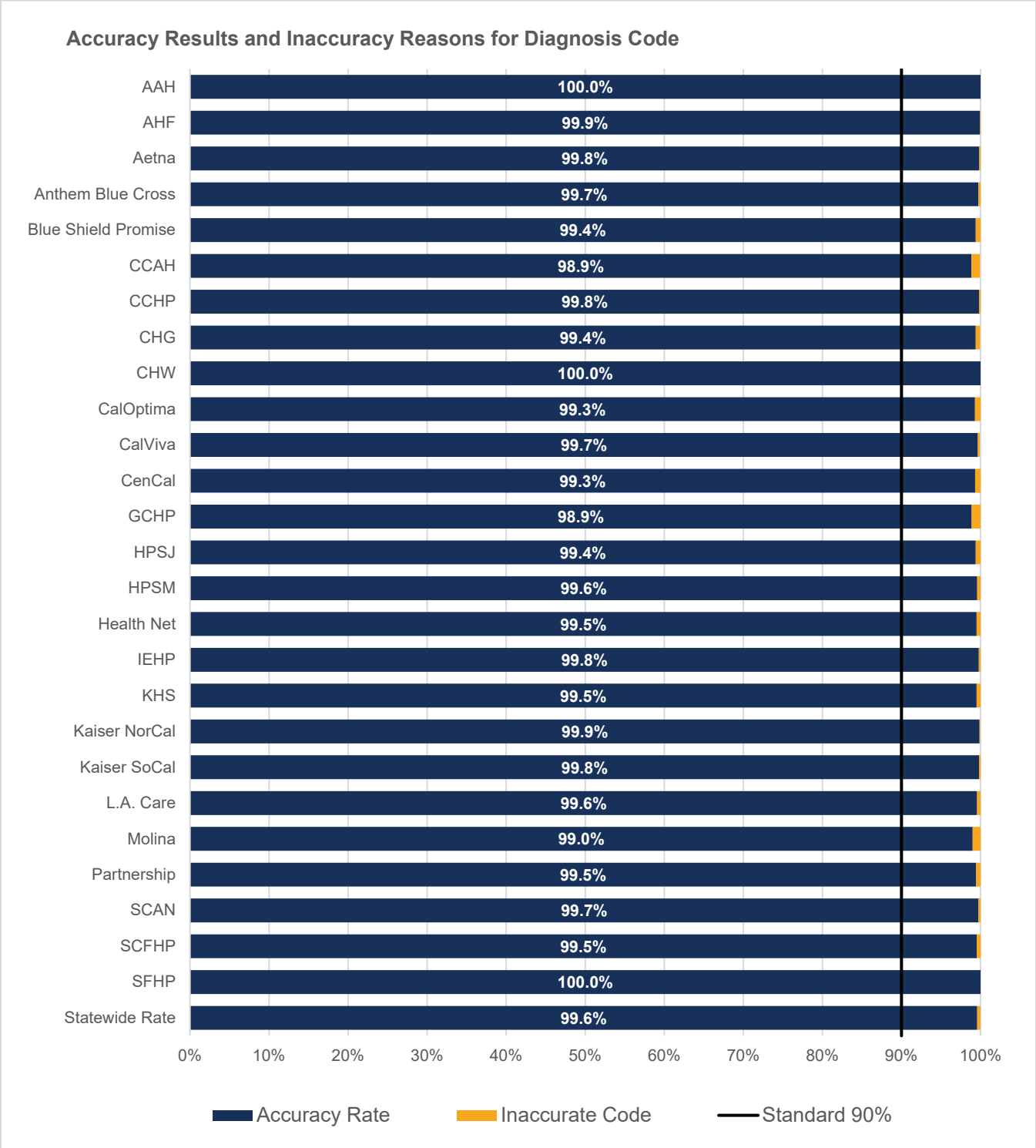
To assist with subsequent investigations conducted by DHCS, HSAG separated inaccurate values for the key data elements into different categories so that the reader could identify the dominant reason(s) for the inaccurate values. In this section, the left-most horizonal bars (shaded dark blue) show the accuracy rates, and the remaining bars to the right display the proportion of inaccuracy reasons. The longest horizonal bar to the right indicates the dominant reason for the inaccuracy.

Diagnosis Code Accuracy

Figure 3.6 displays the statewide and the plan-level accuracy rates for the data element *Diagnosis Code*. In addition, errors found in the diagnosis coding were separated into two categories: specificity errors and inaccurate codes. Specificity errors occur when the documentation supports a more specific code than was listed in the DHCS encounter data (i.e., unspecified abdominal pain [R10.9] when the provider noted during the exam that the abdominal pain was in the right lower quadrant [R10.31]). Specificity errors also include diagnosis codes that do not have the required fourth or fifth digit. An inaccurate code occurs when the diagnosis code submitted by the provider should have been selected from a different family of codes based on the documentation in the medical record (i.e., R51 [headache] versus the documentation supporting G43 [migraine]) or when documentation in the medical records did not support the diagnosis code. Because error percentages from the specificity errors were less than 0.5 percent, HSAG did not display them in Figure 3.6.

Figure 3.6—Accuracy Results and Inaccuracy Reasons for Diagnosis Code

Note: Data element accuracy rates greater than 90 percent indicate that the plan met the EDV study standard.



Key findings for the accuracy rates:

- Statewide, 99.6 percent of the diagnosis codes were accurate when the diagnosis codes were present in both the electronic encounter data and the medical records. The accuracy rates ranged from 98.9 percent (CCAH and GCHP) to 100.0 percent (AAH, CHW, and SFHP).
- All 26 plans met the EDV study standard.
- At the statewide and plan levels, the percentages of diagnosis codes with inaccurate codes were very low; therefore, the data labels were not displayed in Figure 3.6.

Procedure Code Accuracy

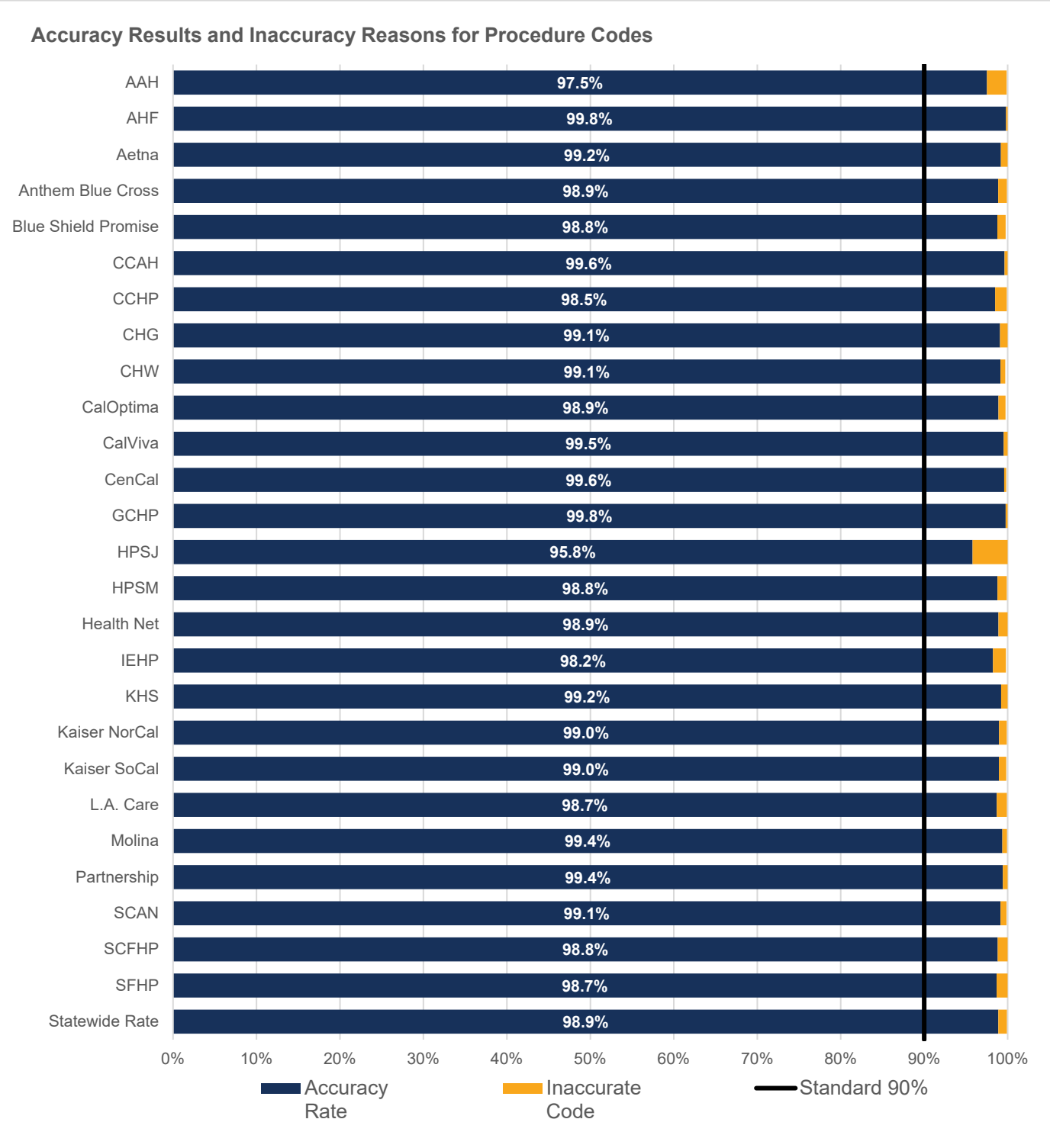
Figure 3.7 displays the statewide and plan-level accuracy rates for the data element *Procedure Code*. Errors found in the procedure coding were separated into three categories: higher level of service found in medical records, lower level of service found in medical records, and inaccurate codes.

- Higher level of service in medical record: Evaluation and management (E&M) codes documented in the medical record reflected a higher level of service performed by the provider than the E&M codes submitted in the encounter. For example, a patient was seen by a physician for a follow-up appointment for a worsening earache. The physician noted all key elements in the patient's medical record and also changed the patient's medication during this visit. The encounter submitted showed a procedure code of 99212 (established patient self-limited or minor problem). With all key elements documented and a worsening condition, this visit should have been coded with a higher level of service, for example, 99213 (established patient low to moderate severity).
- Lower level of service in medical record: E&M codes documented in the medical record reflected a lower level of service than the E&M codes submitted in the encounter. For example, a provider's notes omitted critical documentation elements of the E&M service, or the problem treated did not warrant a high-level visit. This would apply to a patient follow-up visit for an earache that was improving, required no further treatment, and for which no further problems were noted. The encounter submitted showed a procedure code of 99213 (established patient low to moderate severity). However, with an improving condition, the medical record describes a lower level of service, or 99212 (established patient self-limited or minor problem).
- Inaccurate codes: The documentation in the medical records did not support the procedure codes billed, or an incorrect procedure code was used in the encounter for scenarios other than the two mentioned above.

Because error percentages from the higher and lower level of service found in medical records were less than 0.5 percent, HSAG did not display them in Figure 3.7.

Figure 3.7—Accuracy Results and Inaccuracy Reasons for Procedure Code

Note: Data element accuracy rates greater than 90 percent indicate that the plan met the EDV study standard.



Key findings for the accuracy rates:

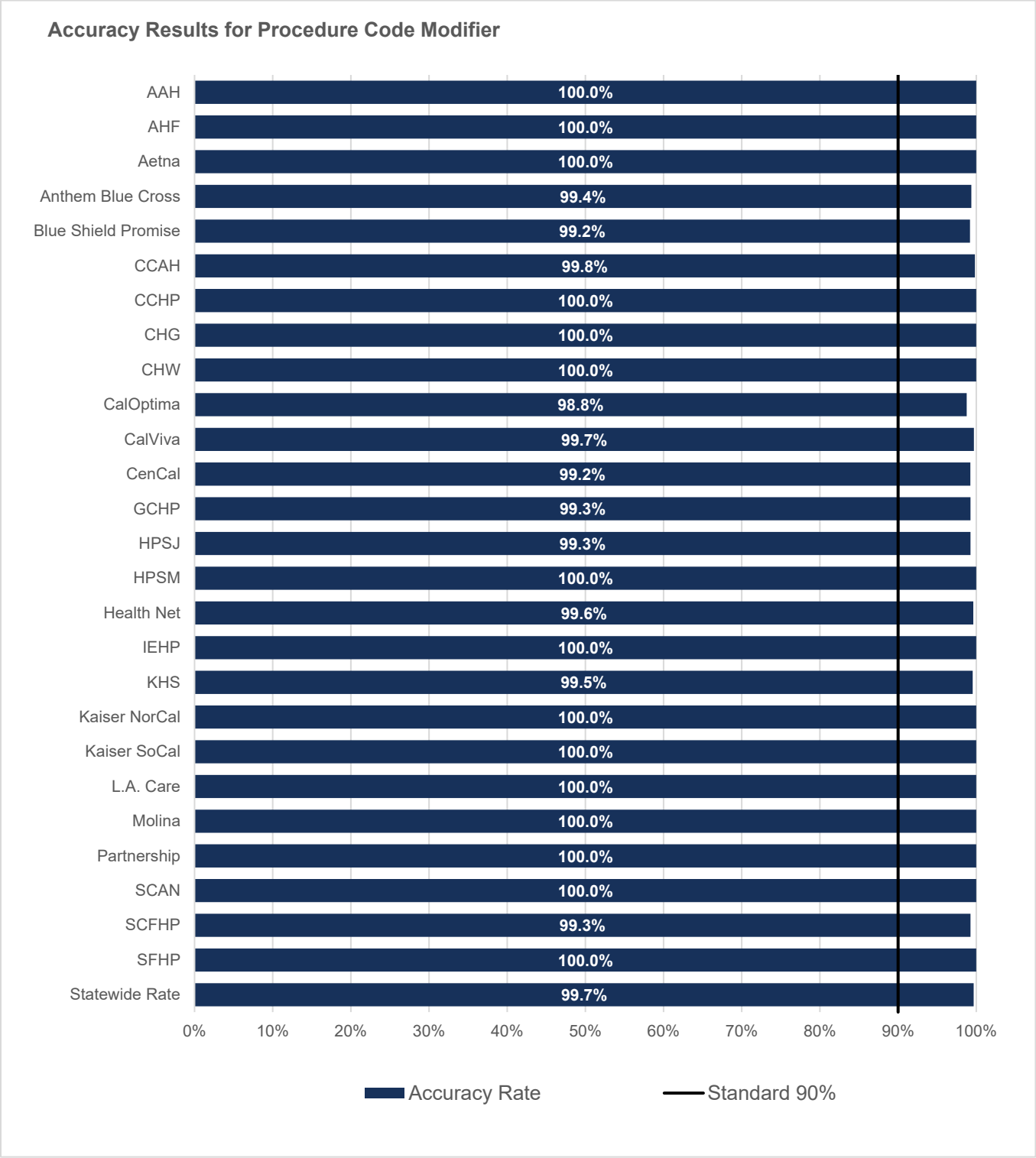
- Statewide, 98.9 percent of procedure codes were accurate when present in both the electronic encounter data and the medical record. The accuracy rates ranged from 95.8 percent (HPSJ) to 99.8 percent (AHF and GCHP).
- All 26 plans met the EDV study standard.
- At the statewide and plan levels, the percentages of procedure codes that were inaccurate were low; therefore, the data labels were not displayed in Figure 3.7.

Procedure Code Modifier Accuracy

Figure 3.8 displays the statewide and plan-level accuracy rates for the data element *Procedure Code Modifier*. The errors for this data element could not be separated into subcategories and therefore are not presented in the figure.

Figure 3.8—Accuracy Results for Procedure Code Modifier

Note: Data element accuracy rates greater than 90 percent indicate that the plans met the EDV study standard.



Key findings for the accuracy rates:

- Statewide, 99.7 percent of the procedure code modifiers were accurate when the procedure code modifiers were present in both the electronic encounter data and the medical records.
- All 26 plans met the EDV study standard.

Rendering Provider Name Accuracy

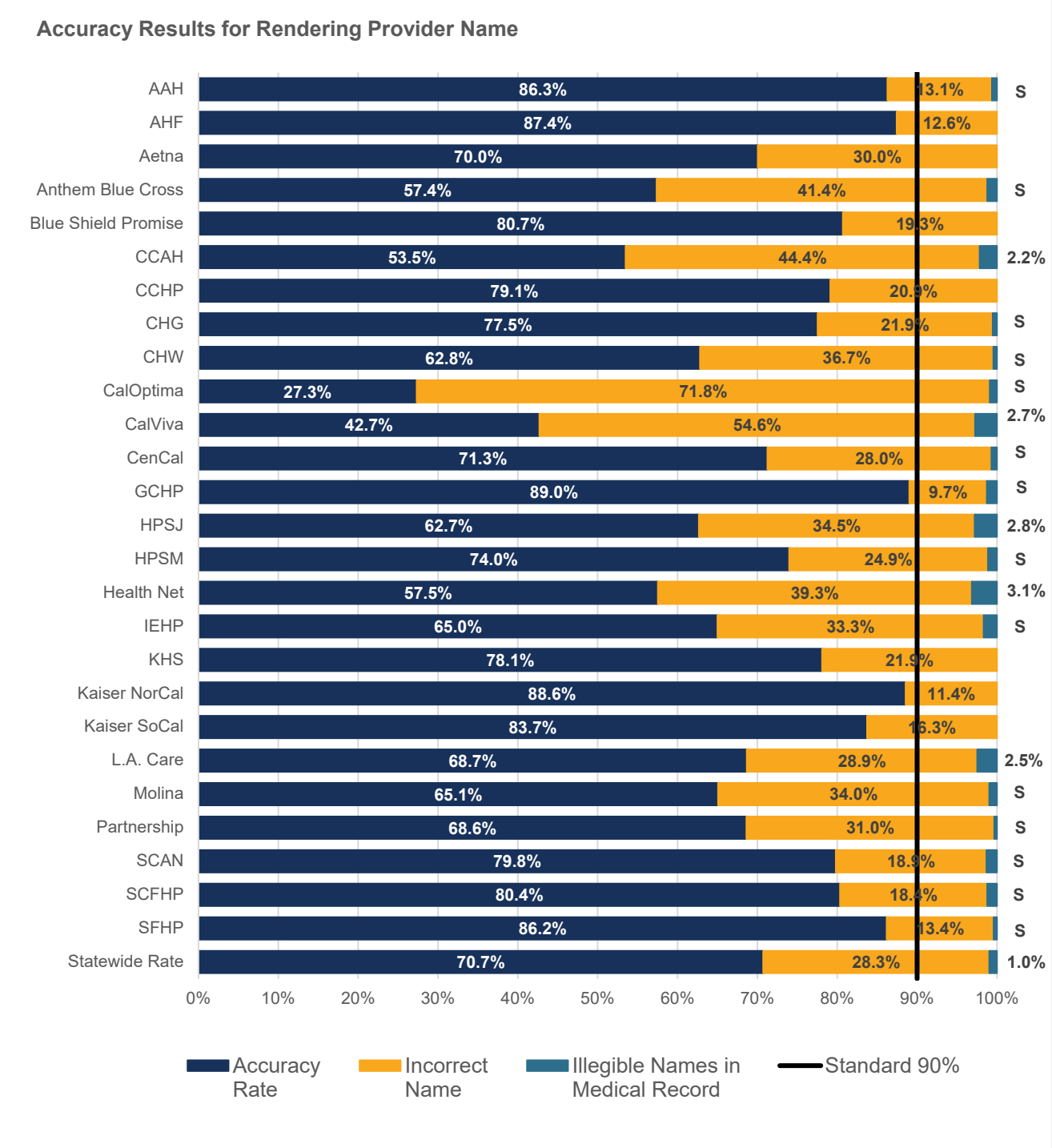
Figure 3.9 displays the statewide and plan-level accuracy rates for the data element *Rendering Provider Name*. If the rendering provider name from DHCS' encounter data approximately matched the name in the medical record (e.g., a typographical error or "Rob Smith" versus "Robert Smith"), HSAG considered the names from both sources a match.

Errors found in the rendering provider names were separated into two categories: incorrect names and illegible names.

Figure 3.9—Accuracy Results and Inaccuracy Reasons for Rendering Provider Name

Note: Data element accuracy rates greater than 90 percent indicate that the plan met the EDV study standard.

"S" indicates that the numerator for the indicator was less than 11; therefore, this report suppresses the rate to satisfy the HIPAA Privacy Rule's de-identification standard.



Key findings for the accuracy rates:

- Statewide, 70.7 percent of rendering provider names were accurate when the rendering provider names were present in both the DHCS data warehouse and the medical records.
- The plan rates ranged from 27.3 percent (CalOptima) to 89.0 percent (GCHP).
- None of the plans met the EDV study standard.
- Comparing the "Incorrect Name" and "Illegible Names in Medical Record" inaccuracy reasons, "Incorrect Name" is the primary reason for the inaccurate rendering provider names (i.e., the majority of errors in the rendering provider names were associated with discrepancies between the name in the medical record and the name in the DHCS data warehouse, not due to illegible names in the medical records).

Of note, the denominator for the percentages in the figure was the number of accurate and inaccurate rendering provider names, while the denominator for the error rates listed in the last column of Table 4.2 was the number of inaccurate (i.e., incorrect name or illegible name) rendering provider names.

All-Element Accuracy

Table 3.4 displays the statewide and plan-level all-element accuracy rates, calculated with and without the *Rendering Provider Name* data element included in the calculation, which describe the percentage of dates of service present in both DHCS' encounter data and in the medical records with exactly the same values for key data elements listed in Table 2.1. The denominator is the total number of dates of service that matched in both data sources. The numerator is the total number of dates of service with the same values for all key data elements with and without the *Rendering Provider Name* data element. Higher all-element accuracy rates indicate that the values populated in DHCS' encounter data have greater completeness and accuracy for all key data elements when compared to the medical records.

Table 3.4—All-Element Accuracy Results

Note: The all-element accuracy rates greater than 80 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

*This data element is calculated based on the results from the *Diagnosis Code*, *Procedure Code*, and *Procedure Code Modifier* data elements.

	Accuracy Results		
Plan	**Number of Dates of Service Present in Both Sources**	**Accuracy Rate**	**Accuracy Rate Excluding Rendering Provider Name***
AAH	482	64.7%	75.3%
AHF	431	36.0%	42.0%

	Accuracy Results		
Plan	**Number of Dates of Service Present in Both Sources**	**Accuracy Rate**	**Accuracy Rate Excluding Rendering Provider Name***
Aetna	223	48.9%	71.3%
Anthem Blue Cross	577	43.8%	74.0%
Blue Shield Promise	574	55.4%	67.8%
CCAH	606	35.1%	65.7%
CCHP	505	64.2%	80.8%+
CHG	566	51.8%	66.8%
CHW	444	36.3%	59.5%
CalOptima	563	16.7%	63.8%
CalViva	443	28.0%	68.2%
CenCal	584	52.1%	75.5%
GCHP	245	59.6%	69.4%
HPSJ	504	46.6%	71.8%
HPSM	537	41.9%	59.6%
Health Net	446	38.3%	64.6%
IEHP	478	42.9%	61.3%
KHS	648	56.5%	71.5%
Kaiser NorCal	629	79.5%	90.1%+
Kaiser SoCal	642	73.4%	86.3%+
L.A. Care	491	51.7%	72.9%
Molina	524	44.1%	69.3%
Partnership	598	53.5%	76.4%
SCAN	459	61.2%	75.4%
SCFHP	576	56.4%	69.6%
SFHP	487	71.0%	79.7%
Statewide Total	**13,262**	**45.2%**	**69.1%**

Key findings for the all-element accuracy rates:

- Statewide, 45.2 percent of the dates of service present in both data sources contained accurate values for all four key data elements (i.e., *Diagnosis Code*, *Procedure Code*, *Procedure Code Modifier*, and *Rendering Provider Name*). The low statewide all-element accuracy rates were caused by the medical record omission, encounter data omission, and element inaccuracy from all four key data elements, with *Rendering Provider Name* contributing the most and *Procedure Code Modifier* contributing the least to the all-element inaccuracy.
- None of the 26 plans met the EDV study standard of 80 percent when the *Rendering Provider Name* field was part of the calculation.
- The rates among the 26 plans ranged from 16.7 percent (CalOptima) to 79.5 percent (Kaiser NorCal).

With the *Rendering Provider Name* data element excluded from the calculation of the all-element accuracy rate, the statewide rate improved to 69.1 percent and the variation among the 26 plans narrowed (i.e., ranged from 42.0 percent [AHF] to 90.1 percent [Kaiser NorCal, which met the standard]).

4. Conclusions and Recommendations

Conclusions

Encounter Data Completeness

Table 4.1 displays the medical record and encounter data omission rates for each key data element.

Table 4.1—Encounter Data Completeness Summary

Note: Omission rates of less than 10 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standards.

	Medical Record Omission		Encounter Data Omission	
Key Data Elements	**Statewide Rate**	**Plan Range**	**Statewide Rate**	**Plan Range**
Date of Service	8.6%+	2.0%–51.3%	3.7%+	2.1%–11.8%
Diagnosis Code	11.5%	2.2%–48.4%	2.1%+	0.7%–5.0%
Procedure Code	19.4%	6.4%–55.4%	8.5%+	2.1%–14.0%
Procedure Code Modifier	28.3%	8.9%–66.5%	5.0%+	2.6%–22.7%
Rendering Provider Name	9.1%+	2.2%–52.6%	3.6%+	2.0%–10.4%

Based on the cases sampled for the medical record review, HSAG found that the documentation in the members' medical records supported the key data elements in the electronic data at different rates. Two of the five data elements met the EDV study standard at the statewide level. The remaining three data elements were moderately supported by the medical records based on the range of medical record omission rates from 11.5 percent for *Diagnosis Code* to 28.3 percent for *Procedure Code Modifier*.

The variations in rates among the plans varied widely. For example, the data element with the widest range was *Procedure Code Modifier* (57.6 percentage points).

As determined by the medical record review, the potential reasons for the medical record omissions are as follows:

- The medical record was not submitted for the study.

- The provider did not document the services performed in the medical record despite submitting a claim or encounter.
- A data entry error existed for one or more elements (e.g., *Date of Service*).
- The provider did not perform the service.

The statewide encounter data omission rates in Table 4.1 show that all five key data elements met the EDV study standards. This reveals that all five key data elements, when found in the medical records, were well supported by the electronic encounter data extracted from DHCS' data warehouse.

The variations among plan-specific encounter data omission rates depended on the data element. For example, the encounter data omission rates varied widely for the *Procedure Code Modifier* data element (i.e., a difference of 20.1 percentage points) while the range was much narrower for the *Diagnosis Code* data element (i.e., a difference of 4.3 percentage points).

The potential reasons for encounter data omissions included the following:

- The provider's billing office made a coding error or did not submit the procedure codes or modifiers despite performing the specific services.
- Deficiencies existed in the plans' encounter data submission processes, or a deficiency existed in the resubmission of denied or rejected encounters to DHCS.
- A lag occurred between the provider's performance of the service and submission of the encounter to the plan and/or DHCS.

When comparing the 2022–23 results to the 2021–22 EDV study, the statewide medical record omission rates for all five data elements improved. In addition, the rates for *Dates of Service* and *Rendering Provider Name* changed from "Not Met Standard" to "Met Standard" status. The improvements are likely due to increased medical record procurement rates in the current study. For the statewide encounter data omission rates, four data elements met the EDV study standard in the 2021–22 study, while all five data elements met the study standard in the 2022–23 study. The *Rendering Provider Name* element changed from "Not Met Standard" to "Met Standard" status. The improvement in the *Rendering Provider Name* rate was because DHCS was able to provide more rendering provider names in the encounter data submitted to HSAG for the 2022–23 EDV study.

Encounter Data Accuracy

Table 4.2 displays the element accuracy rates for each key data element and the all-element accuracy rates calculated with and without the *Rendering Provider Name* data element included in the calculation.

Table 4.2—Encounter Data Accuracy Summary

Note: Data element accuracy rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard. The all-element accuracy rates greater than 80 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

— Indicates that the error type analysis was not applicable to a given data element.

*This data element is calculated based on the results from the *Diagnosis Code*, *Procedure Code*, and *Procedure Code Modifier* data elements.

Key Data Elements	Statewide	Plan Range	Main Error Type
Diagnosis Code	99.5%+	98.9%–100.0%	Inaccurate code (97.7%)
Procedure Code	98.7%+	95.8%–99.8%	Incorrect code (92.5%); Lower level of services in medical records (5.8%)
Procedure Code Modifier	99.7%+	98.8%–100.0%	—
Rendering Provider Name	63.6%	27.3%–89.0%	Incorrect name (95.3%); Illegible name in medical records (4.7%)
All-Element Accuracy	45.2%	16.7%–79.5%	—
All-Element Accuracy Excluding Rendering Provider Name*	69.1%	42.0%–90.1%	—

The key data elements *Diagnosis Code*, *Procedure Code*, *Procedure Code Modifier*, and *Rendering Provider Name* were evaluated for accuracy if the individual data element was present in both the DHCS electronic encounter data and the medical records. Three of the elements (*Diagnosis Code*, *Procedure Code*, and *Procedure Code Modifier*) met the EDV study standard and were found to be highly accurate. However, the *Rendering Provider Name* element rate was much lower at 63.6 percent and did not meet the EDV study standard.

The accuracy rate for the five key data elements can be affected by different types of errors. The error affecting the *Diagnosis Code* data element was almost entirely an inaccurate code error. For the *Procedure Code* data element, 92.5 percent of the identified errors were associated with the use of inaccurate codes not supported by the DHCS Medi-Cal provider manuals and National Correct Coding Initiative (NCCI) coding standards, and 5.8 percent involved providers submitting a higher-level service code than that supported in the medical records. Finally, most rendering provider name errors (95.3 percent) were associated with rendering provider name discrepancies between the medical records and the DHCS data warehouse rather than with illegible names in the medical records.

Nearly half of the dates of service (45.2 percent) present in both data sources accurately represented all four data elements (i.e., *Diagnosis Code*, *Procedure Code*, *Procedure Code Modifier*, and *Rendering Provider Name*) when compared to the members' medical records. At the plan level, the all-element accuracy rate ranged from 16.7 percent (CalOptima) to 79.5 percent (Kaiser NorCal). While all key data elements contributed to the low statewide all-element accuracy rate, the *Rendering Provider Name* data element contributed most to the inaccuracy. This effect can be seen when the all-element accuracy is calculated excluding the *Rendering Provider Name* data element. As shown in Table 4.2, the all-element accuracy rate increased from 45.2 percent (*All-Element Accuracy*) to 69.1 percent (*All-Element Accuracy Excluding Rendering Provider Name*) when the data element *Rendering Provider Name* was excluded from the calculation.

When comparing the 2022–23 statewide results to the 2021–22 EDV study results, the accuracy rates for the *Diagnosis Code*, *Procedure Code*, and *Procedure Code Modifier* data elements increased slightly, with each data element meeting the standard in both study years. The *Rendering Provider Name* data element rate decreased slightly for the 2022–23 study but did not meet the standard for either study year. Overall, with better medical record omission, encounter data omission, and element accuracy rates from some of the key data elements, the all-element accuracy rate increased from 2021–22 to 2022–23, but still did not meet the standard of 80 percent.

Recommendations

While some improvements were made in the completeness and accuracy of DHCS' encounter data when compared to the 2021–22 EDV study, results from the 2022–23 study show continued opportunities for improvement. DHCS should continue to work with the plans to determine ways to improve study results that did not meet the EDV study standards (i.e., those study indicators listed in Table 4.3 that are marked with an "X").

Table 4.3—Grid of Plans Not Meeting EDV Study Standards

MRO = Medical record omission rate
EDO = Encounter data omission rate
ACU = Data element accuracy rate

	Date of Service		Diagnosis Code	Procedure Code		Procedure Code Modifier		Rendering Provider Name		
Plan	**MRO**	**EDO**	**MRO**	**MRO**	**EDO**	**MRO**	**EDO**	**MRO**	**EDO**	**ACU**
AAH	X		X	X	X	X		X		X
AHF			X	X		X				X
Aetna	X		X	X		X		X		X
Anthem Blue Cross				X		X				X
Blue Shield Promise				X		X	X			X
CCAH				X	X	X				X
CCHP	X		X	X		X		X		X
CHG				X		X				X
CHW	X		X	X	X	X		X		X
CalOptima				X		X				X
CalViva	X		X	X	X	X		X		X
CenCal				X		X				X
GCHP	X		X	X	X	X	X	X		X
HPSJ				X		X				X
HPSM				X		X	X			X
Health Net	X		X	X		X		X		X
IEHP				X		X				X
KHS				X		X				X
Kaiser NorCal		X			X	X			X	X
Kaiser SoCal										X
L.A. Care	X		X	X		X		X		X

	Date of Service		Diagnosis Code	Procedure Code		Procedure Code Modifier		Rendering Provider Name		
Plan	**MRO**	**EDO**	**MRO**	**MRO**	**EDO**	**MRO**	**EDO**	**MRO**	**EDO**	**ACU**
Molina				X		X				X
Partnership				X	X	X				X
SCAN	X		X	X		X		X		X
SCFHP				X	X	X				X
SFHP	X		X	X		X		X		X

Study Limitations

When evaluating the findings presented in this report, it is important to understand the following limitations associated with this study:

- The study findings relied solely on the documentation contained in the members' medical records; therefore, results are dependent on the overall quality of physicians' medical records. For example, a physician may have performed a service but may not have documented it in the member's medical record. As such, HSAG would have counted it as a negative finding. This study was unable to distinguish cases in which a service was not performed versus those in which a service was performed but not documented in the medical record.
- The findings for the data element *Rendering Provider Name* should be interpreted with caution because rendering provider names may not be included or legible in members' medical records.
- The findings from this study are associated with encounters from January 1, 2021, to December 31, 2021; as such, the results may not reflect the current quality of DHCS' encounter data.
- The findings from this study are associated with physician visits and may not be applicable to other claim types.
- Aetna and GCHP had low rates of medical record procurement. Cases without medical records contributed to the medical record omission results shown in this report. For example, if medical records were not submitted for a sampled date of service, all data elements (i.e., *Date of Service*, *Diagnosis Code*, *Procedure Code*, *Procedure Code Modifier*, and *Rendering Provider Name*) associated with that date of service were scored as medical record omissions. Therefore, the plans with lower medical record submission rates would be expected to have higher (i.e., poorer) medical record omission rates for each key data element. For this reason, rates for these plans should be interpreted with caution.
- As of January 1, 2024, Aetna will no longer be servicing Medi-Cal members in California, which may have affected its medical record procurement rate for the EDV study.

Appendix A. Plans Included in the Study

Table A.1 presents the names and abbreviations, reporting units, and model types of plans included in this EDV study.

Table A.1—Plans Included in the Study

* Region 1 includes Butte, Colusa, Glenn, Plumas, Sierra, Sutter, and Tehama counties; Region 2 includes Alpine, Amador, Calaveras, El Dorado, Inyo, Mariposa, Mono, Nevada, Placer, Tuolumne, and Yuba counties.

Plan Name	Plan Abbreviation	Plan County/ Reporting Unit	Model
Aetna Better Health of California	Aetna	Sacramento	Geographic Managed Care (GMC)
		San Diego	GMC
AIDS Healthcare Foundation	AHF	Los Angeles	Population-Specific Health Plan (PSP)
Alameda Alliance for Health	AAH	Alameda	Local Initiative
Blue Cross of California Partnership Plan, Inc., DBA Anthem Blue Cross Partnership Plan	Anthem Blue Cross	Alameda	Commercial Plan (CP)
		Contra Costa	CP
		Fresno	CP
		Kings	CP
		Madera	CP
		Sacramento	GMC
		San Francisco	CP
		Santa Clara	CP
		Tulare	Local Initiative
		Region 1*	Regional
		Region 2*	Regional
		San Benito	San Benito
Blue Shield of California Promise Health Plan	Blue Shield Promise	San Diego	GMC

Plan Name	Plan Abbreviation	Plan County/ Reporting Unit	Model
California Health & Wellness Plan	CHW	Imperial	Imperial
		Region 1*	Regional
		Region 2*	Regional
CalOptima	CalOptima	Orange	County Organized Health System (COHS)
CalViva Health	CalViva	Fresno	Local Initiative
		Kings	Local Initiative
		Madera	Local Initiative
CenCal Health	CenCal	Santa Barbara	COHS
		San Luis Obispo	COHS
Central California Alliance for Health	CCAH	Merced	COHS
		Monterey/Santa Cruz	COHS
Community Health Group Partnership Plan	CHG	San Diego	GMC
Contra Costa Health Plan	CCHP	Contra Costa	Local Initiative
Gold Coast Health Plan	GCHP	Ventura	COHS
Health Net Community Solutions, Inc.	Health Net	Kern	CP
		Los Angeles	CP
		Sacramento	GMC
		San Diego	GMC
		San Joaquin	CP
		Stanislaus	CP
		Tulare	CP
Health Plan of San Joaquin	HPSJ	San Joaquin	Local Initiative
		Stanislaus	Local Initiative
Health Plan of San Mateo	HPSM	San Mateo	COHS

Plan Name	Plan Abbreviation	Plan County/ Reporting Unit	Model
Inland Empire Health Plan	IEHP	Riverside/San Bernardino	Local Initiative
KP Cal, LLC (Kaiser NorCal)	Kaiser NorCal	KP North (Amador, El Dorado, Placer, and Sacramento counties)	GMC/Regional
KP Cal, LLC (Kaiser SoCal)	Kaiser SoCal	San Diego	GMC
Kern Health Systems, DBA Kern Family Health Care	KHS	Kern	Local Initiative
L.A. Care Health Plan	L.A. Care	Los Angeles	Local Initiative
Molina Healthcare of California	Molina	Riverside/San Bernardino	CP
		Sacramento	GMC
		San Diego	GMC
		Imperial	Imperial
Partnership HealthPlan of California	Partnership	Southwest (Marin, Mendocino, Sonoma, and Lake counties)	COHS
		Southeast (Napa, Solano, and Yolo counties)	COHS
		Northwest (Del Norte and Humboldt counties)	COHS
		Northeast (Lassen, Modoc, Shasta, Siskiyou, and Trinity counties)	COHS
San Francisco Health Plan	SFHP	San Francisco	Local Initiative
Santa Clara Family Health Plan	SCFHP	Santa Clara	Local Initiative

Plan Name	Plan Abbreviation	Plan County/ Reporting Unit	Model
SCAN Health Plan	SCAN	Los Angeles	PSP
		Riverside	PSP
		San Bernardino	PSP

Appendix B. Findings for Aetna Better Health of California (Aetna)

Medical Record Procurement Status

Table B.1 shows the medical record procurement status (i.e., number of medical records submitted for either the sampled date of service or the second date of service) for Aetna.

Table B.1—Medical Record Procurement Status for Aetna

Note: Medical record procurement rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

Plan	Initial Sample Size	Number of Records Submitted	Percentage of Records Submitted
Aetna	411	180	43.8%
Statewide Total	**10,590**	**9,358**	**88.4%**

Table B.2 lists the reasons for missing medical records for Aetna.

Table B.2—Reasons for Missing Medical Records for Aetna

Note: Total may not equal 100 percent due to rounding.

Non-Submission Reason	Count	Percent
Non-responsive provider or provider did not respond in a timely manner.	161	69.7%
Provider refused to release medical records.	52	22.5%
Member was not a patient of the practice.	6	2.6%
Other.	6	2.6%
Member was a patient of the practice; however, no documentation was available for requested dates of service.	5	2.2%
Medical records were not located at the facility.	1	0.4%
Aetna Total	**231**	**100.0%**

Table B.3 displays the number and percent of records with a second date of service submitted for Aetna.

Table B.3—Medical Record Submission Status for Second Date of Service for Aetna

Plan	Number of Records Submitted	Number of Records Submitted with Second Date of Service	Percent
Aetna	180	65	36.1%
Statewide Total	**9,358**	**5,600**	**59.8%**

Encounter Data Completeness

Table B.4 displays the medical record omission and encounter data omission rates for Aetna. Using the data element *Date of Service* as an example, the list below shows the specifications for the denominator and the numerator:

- Medical record omission rate: The denominator for the medical record omission rate is the number of dates of service identified in DHCS' electronic encounter data, and the numerator is the number of dates of service identified in DHCS' electronic encounter data that were not found in the medical records submitted for the study.
- Encounter data omission rate: The denominator for the encounter data omission rate is the number of dates of service identified in the medical records, and the numerator is the number of dates of service from the medical records that were not found in DHCS' electronic encounter data.

HSAG evaluated the medical record omission rate and the encounter data omission rate using the date of service selected by HSAG and an additional date of service selected by the provider, if one was available. For both rates, lower values indicate better performance.

Table B.4—Encounter Data Completeness Summary for Aetna

Note: Omission rates of less than 10 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standards.

"S" indicates that the numerator for this indicator was less than 11; therefore, this report suppresses the rate to satisfy the Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy Rule's de-identification standard.

	Medical Record Omission			Encounter Data Omission		
Key Data Elements	**Denominator**	**Aetna Rate**	**Statewide Rate**	**Denominator**	**Aetna Rate**	**Statewide Rate**
Date of Service	458	51.3%	**8.6%+**	230	S+	**3.7%+**
Diagnosis Code	1,219	48.4%	**11.5%**	642	2.0%+	**2.1%+**
Procedure Code	1,102	55.4%	**19.4%**	516	4.8%+	**8.5%+**
Procedure Code Modifier	468	66.5%	**28.3%**	163	S+	**5.0%+**
Rendering Provider Name	458	52.6%	**9.1%+**	224	S+	**3.6%+**

Encounter Data Accuracy

Table B.5 displays the element accuracy rates for each key data element and the all-element accuracy rate for Aetna. Encounter data accuracy was evaluated for dates of service that existed in both DHCS' electronic encounter data and the medical records and had values present in both data sources for the evaluated data element. Using the data element *Diagnosis Code* as an example, the list below shows the specifications for the denominator and the numerator:

- Denominator: The denominator for the accuracy rate is the number of diagnosis codes associated with dates of service that existed in both DHCS' electronic encounter data and the medical records. In addition, both data sources had values for the data element *Diagnosis Code*.
- Numerator: The numerator for the accuracy rate is the number of diagnosis codes in the denominator that were correctly coded based on the medical records submitted for the study.

The all-element accuracy rate denotes the percentage of dates of service with all data elements coded correctly among all validated dates of service from the electronic encounter data.

Table B.5—Encounter Data Accuracy Summary for Aetna

Note: Data element accuracy rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard. The all-element accuracy rates greater than 80 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

— Indicates that the error type analysis was not applicable to a given data element, or the denominator for the error rate was too small (i.e., less than 30) to report a valid rate and/or the numerator for the error rate was less than 11.

[1]This data element was calculated based on the results from the *Diagnosis Code, Procedure Code,* and *Procedure Code Modifier* data elements.

Key Data Element	Denominator	Aetna Accuracy Rate	Statewide Accuracy Rate	Main Error Type
Diagnosis Code	629	99.8%+	**99.5%+**	—
Procedure Code	491	99.2%+	**98.7%+**	—
Procedure Code Modifier	157	100.0%+	**99.7%+**	—
Rendering Provider Name	217	70.0%	**63.6%**	Incorrect name (100.0%)
All-Element Accuracy	223	48.9%	**45.2%**	—
All-Element Accuracy Excluding Rendering Provider Name[1]	223	71.3%	**69.1%**	—

Appendix C. Findings for AIDS Healthcare Foundation (AHF)

Medical Record Procurement Status

Table C.1 shows the medical record procurement status (i.e., number of medical records submitted for either the sampled date of service or the second date of service) for AHF.

Table C.1—Medical Record Procurement Status for AHF

Note: Medical record procurement rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

Plan	Initial Sample Size	Number of Records Submitted	Percentage of Records Submitted
AHF	315	275	87.3%
Statewide Total	**10,590**	**9,358**	**88.4%**

Table C.2 lists the reasons for missing medical records for AHF.

Table C.2—Reasons for Missing Medical Records for AHF

Note: Total may not equal 100 percent due to rounding.

Non-Submission Reason	Count	Percent
Non-responsive provider or provider did not respond in a timely manner.	19	47.5%
Medical records were not located at the facility.	17	42.5%
Member was a patient of the practice; however, no documentation was available for requested dates of service.	3	7.5%
Member was not a patient of the practice.	1	2.5%
AHF Total	**40**	**100.0%**

Table C.3 displays the number and percent of records with a second date of service submitted for AHF.

Table C.3—Medical Record Submission Status for Second Date of Service for AHF

Plan	Number of Records Submitted	Number of Records Submitted with Second Date of Service	Percent
AHF	275	219	79.6%
Statewide Total	**9,358**	**5,600**	**59.8%**

Encounter Data Completeness

Table C.4 displays the medical record omission and encounter data omission rates for AHF. Using the data element *Date of Service* as an example, the list below shows the specifications for the denominator and the numerator:

- Medical record omission rate: The denominator for the medical record omission rate is the number of dates of service identified in DHCS' electronic encounter data, and the numerator is the number of dates of service identified in DHCS' electronic encounter data that were not found in the medical records submitted for the study.
- Encounter data omission rate: The denominator for the encounter data omission rate is the number of dates of service identified in the medical records, and the numerator is the number of dates of service from the medical records that were not found in DHCS' electronic encounter data.

HSAG evaluated the medical record omission rate and the encounter data omission rate using the date of service selected by HSAG and an additional date of service selected by the provider, if one was available. For both rates, lower values indicate better performance.

Table C.4—Encounter Data Completeness Summary for AHF

Note: Omission rates of less than 10 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standards.

"S" indicates that the numerator for this indicator was less than 11; therefore, this report suppresses the rate to satisfy the Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy Rule's de-identification standard.

	Medical Record Omission			Encounter Data Omission		
Key Data Elements	**Denominator**	**AHF Rate**	**Statewide Rate**	**Denominator**	**AHF Rate**	**Statewide Rate**
Date of Service	476	9.5%+	**8.6%+**	453	4.9%+	**3.7%+**
Diagnosis Code	1,970	16.9%	**11.5%**	1,669	1.9%+	**2.1%+**
Procedure Code	1,713	41.0%	**19.4%**	1,044	3.2%+	**8.5%+**
Procedure Code Modifier	415	49.6%	**28.3%**	218	S+	**5.0%+**
Rendering Provider Name	476	9.7%+	**9.1%+**	451	4.7%+	**3.6%+**

Encounter Data Accuracy

Table C.5 displays the element accuracy rates for each key data element and the all-element accuracy rate for AHF. Encounter data accuracy was evaluated for dates of service that existed in both DHCS' electronic encounter data and the medical records and had values present in both data sources for the evaluated data element. Using the data element *Diagnosis Code* as an example, the list below shows the specifications for the denominator and the numerator:

- Denominator: The denominator for the accuracy rate is the number of diagnosis codes associated with dates of service that existed in both DHCS' electronic encounter data and the medical records. In addition, both data sources had values for the data element *Diagnosis Code*.
- Numerator: The numerator for the accuracy rate is the number of diagnosis codes in the denominator that were correctly coded based on the medical records submitted for the study.

The all-element accuracy rate denotes the percentage of dates of service with all data elements coded correctly among all validated dates of service from the electronic encounter data.

Table C.5—Encounter Data Accuracy Summary for AHF

Note: Data element accuracy rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard. The all-element accuracy rates greater than 80 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

— Indicates that the error type analysis was not applicable to a given data element, or the denominator for the error rate was too small (i.e., less than 30) to report a valid rate and/or the numerator for the error rate was less than 11.

[1]This data element was calculated based on the results from the *Diagnosis Code, Procedure Code,* and *Procedure Code Modifier* data elements.

Key Data Element	Denominator	AHF Accuracy Rate	Statewide Accuracy Rate	Main Error Type
Diagnosis Code	1,638	99.9%+	**99.5%+**	—
Procedure Code	1,011	99.8%+	**98.7%+**	—
Procedure Code Modifier	209	100.0%+	**99.7%+**	—
Rendering Provider Name	430	87.4%	**63.6%**	Incorrect name (100.0%)
All-Element Accuracy	431	36.0%	**45.2%**	—
All-Element Accuracy Excluding Rendering Provider Name[1]	431	42.0%	**69.1%**	—

Appendix D. Findings for Alameda Alliance for Health (AAH)

Medical Record Procurement Status

Table D.1 shows the medical record procurement status (i.e., number of medical records submitted for either the sampled date of service or the second date of service) for AAH.

Table D.1—Medical Record Procurement Status for AAH

Note: Medical record procurement rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

Plan	Initial Sample Size	Number of Records Submitted	Percentage of Records Submitted
AAH	411	342	83.2%
Statewide Total	**10,590**	**9,358**	**88.4%**

Table D.2 lists the reasons for missing medical records for AAH.

Table D.2—Reasons for Missing Medical Records for AAH

Note: Total may not equal 100 percent due to rounding.

Non-Submission Reason	Count	Percent
Non-responsive provider or provider did not respond in a timely manner.	46	66.7%
Member was a patient of the practice; however, no documentation was available for requested dates of service.	8	11.6%
Medical records were not located at the facility.	6	8.7%
Member was not a patient of the practice.	5	7.2%
Closed facility.	2	2.9%
Other.	1	1.4%
Provider refused to release medical records.	1	1.4%
AAH Total	**69**	**100.0%**

Table D.3 displays the number and percent of records with a second date of service submitted for AAH.

Table D.3—Medical Record Submission Status for Second Date of Service for AAH

Plan	Number of Records Submitted	Number of Records Submitted with Second Date of Service	Percent
AAH	342	227	66.4%
Statewide Total	**9,358**	**5,600**	**59.8%**

Encounter Data Completeness

Table D.4 displays the medical record omission and encounter data omission rates for AAH. Using the data element *Date of Service* as an example, the list below shows the specifications for the denominator and the numerator:

- Medical record omission rate: The denominator for the medical record omission rate is the number of dates of service identified in DHCS' electronic encounter data, and the numerator is the number of dates of service identified in DHCS' electronic encounter data that were not found in the medical records submitted for the study.
- Encounter data omission rate: The denominator for the encounter data omission rate is the number of dates of service identified in the medical records, and the numerator is the number of dates of service from the medical records that were not found in DHCS' electronic encounter data.

HSAG evaluated the medical record omission rate and the encounter data omission rate using the date of service selected by HSAG and an additional date of service selected by the provider, if one was available. For both rates, lower values indicate better performance.

Table D.4—Encounter Data Completeness Summary for AAH

Note: Omission rates of less than 10 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standards.

"S" indicates that the numerator for this indicator was less than 11; therefore, this report suppresses the rate to satisfy the Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy Rule's de-identification standard.

	Medical Record Omission			Encounter Data Omission		
Key Data Elements	**Denominator**	**AAH Rate**	**Statewide Rate**	**Denominator**	**AAH Rate**	**Statewide Rate**
Date of Service	565	14.7%	**8.6%⁺**	507	4.9%⁺	**3.7%⁺**
Diagnosis Code	1,469	14.8%	**11.5%**	1,284	2.6%⁺	**2.1%⁺**
Procedure Code	1,065	20.3%	**19.4%**	961	11.7%	**8.5%⁺**
Procedure Code Modifier	483	27.1%	**28.3%**	358	S⁺	**5.0%⁺**
Rendering Provider Name	565	14.9%	**9.1%⁺**	506	4.9%⁺	**3.6%⁺**

Encounter Data Accuracy

Table D.5 displays the element accuracy rates for each key data element and the all-element accuracy rate for AAH. Encounter data accuracy was evaluated for dates of service that existed in both DHCS' electronic encounter data and the medical records and had values present in both data sources for the evaluated data element. Using the data element *Diagnosis Code* as an example, the list below shows the specifications for the denominator and the numerator:

- Denominator: The denominator for the accuracy rate is the number of diagnosis codes associated with dates of service that existed in both DHCS' electronic encounter data and the medical records. In addition, both data sources had values for the data element *Diagnosis Code*.
- Numerator: The numerator for the accuracy rate is the number of diagnosis codes in the denominator that were correctly coded based on the medical records submitted for the study.

The all-element accuracy rate denotes the percentage of dates of service with all data elements coded correctly among all validated dates of service from the electronic encounter data.

Table D.5—Encounter Data Accuracy Summary for AAH

Note: Data element accuracy rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard. The all-element accuracy rates greater than 80 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

— Indicates that the error type analysis was not applicable to a given data element, or the denominator for the error rate was too small (i.e., less than 30) to report a valid rate and/or the numerator for the error rate was less than 11.

[1]This data element was calculated based on the results from the *Diagnosis Code, Procedure Code,* and *Procedure Code Modifier* data elements.

Key Data Element	Denominator	AAH Accuracy Rate	Statewide Accuracy Rate	Main Error Type
Diagnosis Code	1,251	100.0%+	**99.5%+**	—
Procedure Code	849	97.5%+	**98.7%+**	—
Procedure Code Modifier	352	100.0%+	**99.7%+**	—
Rendering Provider Name	481	86.3%	**63.6%**	Incorrect name (95.5%)
All-Element Accuracy	482	64.7%	**45.2%**	—
All-Element Accuracy Excluding Rendering Provider Name[1]	482	75.3%	**69.1%**	—

Appendix E. Findings for Anthem Blue Cross Partnership Plan (Anthem Blue Cross)

Medical Record Procurement Status

Table E.1 shows the medical record procurement status (i.e., number of medical records submitted for either the sampled date of service or the second date of service) for Anthem Blue Cross.

Table E.1—Medical Record Procurement Status for Anthem Blue Cross

Note: Medical record procurement rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

Plan	Initial Sample Size	Number of Records Submitted	Percentage of Records Submitted
Anthem Blue Cross	411	395	96.1%+
Statewide Total	**10,590**	**9,358**	**88.4%**

Table E.2 lists the reasons for missing medical records for Anthem Blue Cross.

Table E.2—Reasons for Missing Medical Records for Anthem Blue Cross

Note: Total may not equal 100 percent due to rounding.

Non-Submission Reason	Count	Percent
Provider refused to release medical records.	8	50.0%
Member was a patient of the practice; however, no documentation was available for requested dates of service.	3	18.8%
Non-responsive provider or provider did not respond in a timely manner.	3	18.8%
Closed facility.	1	6.3%
Medical records were not located at the facility.	1	6.3%
Anthem Blue Cross Total	**16**	**100.0%**

Table E.3 displays the number and percent of records with a second date of service submitted for Anthem Blue Cross.

Table E.3—Medical Record Submission Status for Second Date of Service for Anthem Blue Cross

Plan	Number of Records Submitted	Number of Records Submitted with Second Date of Service	Percent
Anthem Blue Cross	395	260	65.8%
Statewide Total	**9,358**	**5,600**	**59.8%**

Encounter Data Completeness

Table E.4 displays the medical record omission and encounter data omission rates for Anthem Blue Cross. Using the data element *Date of Service* as an example, the list below shows the specifications for the denominator and the numerator:

- Medical record omission rate: The denominator for the medical record omission rate is the number of dates of service identified in DHCS' electronic encounter data, and the numerator is the number of dates of service identified in DHCS' electronic encounter data that were not found in the medical records submitted for the study.
- Encounter data omission rate: The denominator for the encounter data omission rate is the number of dates of service identified in the medical records, and the numerator is the number of dates of service from the medical records that were not found in DHCS' electronic encounter data.

HSAG evaluated the medical record omission rate and the encounter data omission rate using the date of service selected by HSAG and an additional date of service selected by the provider, if one was available. For both rates, lower values indicate better performance.

Table E.4—Encounter Data Completeness Summary for Anthem Blue Cross

Note: Omission rates of less than 10 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standards.

"S" indicates that the numerator for this indicator was less than 11; therefore, this report suppresses the rate to satisfy the Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy Rule's de-identification standard.

	Medical Record Omission			Encounter Data Omission		
Key Data Elements	**Denominator**	**Anthem Blue Cross Rate**	**Statewide Rate**	**Denominator**	**Anthem Blue Cross Rate**	**Statewide Rate**
Date of Service	595	3.0%+	**8.6%+**	610	5.4%+	**3.7%+**
Diagnosis Code	1,642	5.4%+	**11.5%**	1,589	2.2%+	**2.1%+**
Procedure Code	1,309	12.6%	**19.4%**	1,243	8.0%+	**8.5%+**
Procedure Code Modifier	567	15.7%	**28.3%**	491	2.6%+	**5.0%+**
Rendering Provider Name	595	3.0%+	**9.1%+**	610	5.4%+	**3.6%+**

Encounter Data Accuracy

Table E.5 displays the element accuracy rates for each key data element and the all-element accuracy rate for Anthem Blue Cross. Encounter data accuracy was evaluated for dates of service that existed in both DHCS' electronic encounter data and the medical records and had values present in both data sources for the evaluated data element. Using the data element *Diagnosis Code* as an example, the list below shows the specifications for the denominator and the numerator:

- Denominator: The denominator for the accuracy rate is the number of diagnosis codes associated with dates of service that existed in both DHCS' electronic encounter data and the medical records. In addition, both data sources had values for the data element *Diagnosis Code*.
- Numerator: The numerator for the accuracy rate is the number of diagnosis codes in the denominator that were correctly coded based on the medical records submitted for the study.

The all-element accuracy rate denotes the percentage of dates of service with all data elements coded correctly among all validated dates of service from the electronic encounter data.

Table E.5—Encounter Data Accuracy Summary for Anthem Blue Cross

Note: Data element accuracy rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard. The all-element accuracy rates greater than 80 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

— Indicates that the error type analysis was not applicable to a given data element, or the denominator for the error rate was too small (i.e., less than 30) to report a valid rate and/or the numerator for the error rate was less than 11.

[1]This data element was calculated based on the results from the *Diagnosis Code, Procedure Code,* and *Procedure Code Modifier* data elements.

Key Data Element	Denominator	Anthem Blue Cross Accuracy Rate	Statewide Accuracy Rate	Main Error Type
Diagnosis Code	1,554	99.7%+	**99.5%+**	—
Procedure Code	1,144	98.9%+	**98.7%+**	—
Procedure Code Modifier	478	99.4%+	**99.7%+**	—
Rendering Provider Name	577	57.4%	**63.6%**	Incorrect name (97.2%)
All-Element Accuracy	577	43.8%	**45.2%**	—
All-Element Accuracy Excluding Rendering Provider Name[1]	577	74.0%	**69.1%**	—

Appendix F. Findings for Blue Shield of California Promise Health Plan (Blue Shield Promise)

Medical Record Procurement Status

Table F.1 shows the medical record procurement status (i.e., number of medical records submitted for either the sampled date of service or the second date of service) for Blue Shield Promise.

Table F.1—Medical Record Procurement Status for Blue Shield Promise

Note: Medical record procurement rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

Plan	Initial Sample Size	Number of Records Submitted	Percentage of Records Submitted
Blue Shield Promise	411	404	98.3%+
Statewide Total	**10,590**	**9,358**	**88.4%**

Table F.2 lists the reasons for missing medical records for Blue Shield Promise.

Table F.2—Reasons for Missing Medical Records for Blue Shield Promise

Note: Total may not equal 100 percent due to rounding.

Non-Submission Reason	Count	Percent
Non-responsive provider or provider did not respond in a timely manner.	6	85.7%
Member was not a patient of the practice.	1	14.3%
Blue Shield Promise Total	**7**	**100.0%**

Table F.3 displays the number and percent of records with a second date of service submitted for Blue Shield Promise.

Table F.3—Medical Record Submission Status for Second Date of Service for Blue Shield Promise

Plan	Number of Records Submitted	Number of Records Submitted with Second Date of Service	Percent
Blue Shield Promise	404	282	69.8%
Statewide Total	**9,358**	**5,600**	**59.8%**

Encounter Data Completeness

Table F.4 displays the medical record omission and encounter data omission rates for Blue Shield Promise. Using the data element *Date of Service* as an example, the list below shows the specifications for the denominator and the numerator:

- Medical record omission rate: The denominator for the medical record omission rate is the number of dates of service identified in DHCS' electronic encounter data, and the numerator is the number of dates of service identified in DHCS' electronic encounter data that were not found in the medical records submitted for the study.
- Encounter data omission rate: The denominator for the encounter data omission rate is the number of dates of service identified in the medical records, and the numerator is the number of dates of service from the medical records that were not found in DHCS' electronic encounter data.

HSAG evaluated the medical record omission rate and the encounter data omission rate using the date of service selected by HSAG and an additional date of service selected by the provider, if one was available. For both rates, lower values indicate better performance.

Table F.4—Encounter Data Completeness Summary for Blue Shield Promise

Note: Omission rates of less than 10 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standards.

"S" indicates that the numerator for this indicator was less than 11; therefore, this report suppresses the rate to satisfy the Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy Rule's de-identification standard.

	Medical Record Omission			Encounter Data Omission		
Key Data Elements	**Denominator**	**Blue Shield Promise Rate**	**Statewide Rate**	**Denominator**	**Blue Shield Promise Rate**	**Statewide Rate**
Date of Service	592	3.0%+	**8.6%+**	608	5.6%+	**3.7%+**
Diagnosis Code	1,749	6.7%+	**11.5%**	1,673	2.5%+	**2.1%+**
Procedure Code	1,493	18.2%	**19.4%**	1,282	4.8%+	**8.5%+**
Procedure Code Modifier	462	19.0%	**28.3%**	428	12.6%	**5.0%+**
Rendering Provider Name	592	3.0%+	**9.1%+**	608	5.6%+	**3.6%+**

Encounter Data Accuracy

Table F.5 displays the element accuracy rates for each key data element and the all-element accuracy rate for Blue Shield Promise. Encounter data accuracy was evaluated for dates of service that existed in both DHCS' electronic encounter data and the medical records and had values present in both data sources for the evaluated data element. Using the data element *Diagnosis Code* as an example, the list below shows the specifications for the denominator and the numerator:

- Denominator: The denominator for the accuracy rate is the number of diagnosis codes associated with dates of service that existed in both DHCS' electronic encounter data and the medical records. In addition, both data sources had values for the data element *Diagnosis Code*.
- Numerator: The numerator for the accuracy rate is the number of diagnosis codes in the denominator that were correctly coded based on the medical records submitted for the study.

The all-element accuracy rate denotes the percentage of dates of service with all data elements coded correctly among all validated dates of service from the electronic encounter data.

Table F.5—Encounter Data Accuracy Summary for Blue Shield Promise

Note: Data element accuracy rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard. The all-element accuracy rates greater than 80 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

— Indicates that the error type analysis was not applicable to a given data element, or the denominator for the error rate was too small (i.e., less than 30) to report a valid rate and/or the numerator for the error rate was less than 11.

[1]This data element was calculated based on the results from the *Diagnosis Code, Procedure Code,* and *Procedure Code Modifier* data elements.

Key Data Element	Denominator	Blue Shield Promise Accuracy Rate	Statewide Accuracy Rate	Main Error Type
Diagnosis Code	1,632	99.4%+	**99.5%+**	—
Procedure Code	1,221	98.8%+	**98.7%+**	—
Procedure Code Modifier	374	99.2%+	**99.7%+**	—
Rendering Provider Name	574	80.7%	**63.6%**	Incorrect name (100.0%)
All-Element Accuracy	574	55.4%	**45.2%**	—
All-Element Accuracy Excluding Rendering Provider Name[1]	574	67.8%	**69.1%**	—

Appendix G. Findings for California Health & Wellness Plan (CHW)

Medical Record Procurement Status

Table G.1 shows the medical record procurement status (i.e., number of medical records submitted for either the sampled date of service or the second date of service) for CHW.

Table G.1—Medical Record Procurement Status for CHW

Note: Medical record procurement rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

Plan	Initial Sample Size	Number of Records Submitted	Percentage of Records Submitted
CHW	411	351	85.4%
Statewide Total	**10,590**	**9,358**	**88.4%**

Table G.2 lists the reasons for missing medical records for CHW.

Table G.2—Reasons for Missing Medical Records for CHW

Note: Total may not equal 100 percent due to rounding.

Non-Submission Reason	Count	Percent
Member was not a patient of the practice.	27	45.0%
Member was a patient of the practice; however, no documentation was available for requested dates of service.	17	28.3%
Medical records were not located at the facility.	11	18.3%
Non-responsive provider or provider did not respond in a timely manner.	4	6.7%
Provider refused to release medical records.	1	1.7%
CHW Total	**60**	**100.0%**

Table G.3 displays the number and percent of records with a second date of service submitted for CHW.

Table G.3—Medical Record Submission Status for Second Date of Service for CHW

Plan	Number of Records Submitted	Number of Records Submitted with Second Date of Service	Percent
CHW	351	162	46.2%
Statewide Total	**9,358**	**5,600**	**59.8%**

Encounter Data Completeness

Table G.4 displays the medical record omission and encounter data omission rates for CHW. Using the data element *Date of Service* as an example, the list below shows the specifications for the denominator and the numerator:

- Medical record omission rate: The denominator for the medical record omission rate is the number of dates of service identified in DHCS' electronic encounter data, and the numerator is the number of dates of service identified in DHCS' electronic encounter data that were not found in the medical records submitted for the study.
- Encounter data omission rate: The denominator for the encounter data omission rate is the number of dates of service identified in the medical records, and the numerator is the number of dates of service from the medical records that were not found in DHCS' electronic encounter data.

HSAG evaluated the medical record omission rate and the encounter data omission rate using the date of service selected by HSAG and an additional date of service selected by the provider, if one was available. For both rates, lower values indicate better performance.

Table G.4—Encounter Data Completeness Summary for CHW

Note: Omission rates of less than 10 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standards.

"S" indicates that the numerator for this indicator was less than 11; therefore, this report suppresses the rate to satisfy the Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy Rule's de-identification standard.

	Medical Record Omission			Encounter Data Omission		
Key Data Elements	**Denominator**	**CHW Rate**	**Statewide Rate**	**Denominator**	**CHW Rate**	**Statewide Rate**
Date of Service	513	13.5%	**8.6%⁺**	464	4.3%⁺	**3.7%⁺**
Diagnosis Code	1,275	16.0%	**11.5%**	1,097	2.4%⁺	**2.1%⁺**
Procedure Code	1,056	33.7%	**19.4%**	793	11.7%	**8.5%⁺**
Procedure Code Modifier	621	38.2%	**28.3%**	404	5.0%⁺	**5.0%⁺**
Rendering Provider Name	513	14.0%	**9.1%⁺**	460	4.1%⁺	**3.6%⁺**

Encounter Data Accuracy

Table G.5 displays the element accuracy rates for each key data element and the all-element accuracy rate for CHW. Encounter data accuracy was evaluated for dates of service that existed in both DHCS' electronic encounter data and the medical records and had values present in both data sources for the evaluated data element. Using the data element *Diagnosis Code* as an example, the list below shows the specifications for the denominator and the numerator:

- Denominator: The denominator for the accuracy rate is the number of diagnosis codes associated with dates of service that existed in both DHCS' electronic encounter data and the medical records. In addition, both data sources had values for the data element *Diagnosis Code*.
- Numerator: The numerator for the accuracy rate is the number of diagnosis codes in the denominator that were correctly coded based on the medical records submitted for the study.

The all-element accuracy rate denotes the percentage of dates of service with all data elements coded correctly among all validated dates of service from the electronic encounter data.

Table G.5—Encounter Data Accuracy Summary for CHW

Note: Data element accuracy rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard. The all-element accuracy rates greater than 80 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

— Indicates that the error type analysis was not applicable to a given data element, or the denominator for the error rate was too small (i.e., less than 30) to report a valid rate and/or the numerator for the error rate was less than 11.

[1]This data element was calculated based on the results from the *Diagnosis Code, Procedure Code,* and *Procedure Code Modifier* data elements.

Key Data Element	Denominator	CHW Accuracy Rate	Statewide Accuracy Rate	Main Error Type
Diagnosis Code	1,071	100.0%+	**99.5%+**	—
Procedure Code	700	99.1%+	**98.7%+**	—
Procedure Code Modifier	384	100.0%+	**99.7%+**	—
Rendering Provider Name	441	62.8%	**63.6%**	Incorrect name (98.8%)
All-Element Accuracy	444	36.3%	**45.2%**	—
All-Element Accuracy Excluding Rendering Provider Name[1]	444	59.5%	**69.1%**	—

Appendix H. Findings for CalOptima

Medical Record Procurement Status

Table H.1 shows the medical record procurement status (i.e., number of medical records submitted for either the sampled date of service or the second date of service) for CalOptima.

Table H.1—Medical Record Procurement Status for CalOptima

Note: Medical record procurement rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

Plan	Initial Sample Size	Number of Records Submitted	Percentage of Records Submitted
CalOptima	411	398	96.8%+
Statewide Total	**10,590**	**9,358**	**88.4%**

Table H.2 lists the reasons for missing medical records for CalOptima.

Table H.2—Reasons for Missing Medical Records for CalOptima

Note: Total may not equal 100 percent due to rounding.

Non-Submission Reason	Count	Percent
Non-responsive provider or provider did not respond in a timely manner.	9	69.2%
Other.	2	15.4%
Member was a patient of the practice; however, no documentation was available for requested dates of service.	1	7.7%
Member was not a patient of the practice.	1	7.7%
CalOptima Total	**13**	**100.0%**

Table H.3 displays the number and percent of records with a second date of service submitted for CalOptima.

Table H.3—Medical Record Submission Status for Second Date of Service for CalOptima

Plan	Number of Records Submitted	Number of Records Submitted with Second Date of Service	Percent
CalOptima	398	224	56.3%
Statewide Total	**9,358**	**5,600**	**59.8%**

Encounter Data Completeness

Table H.4 displays the medical record omission and encounter data omission rates for CalOptima. Using the data element *Date of Service* as an example, the list below shows the specifications for the denominator and the numerator:

- Medical record omission rate: The denominator for the medical record omission rate is the number of dates of service identified in DHCS' electronic encounter data, and the numerator is the number of dates of service identified in DHCS' electronic encounter data that were not found in the medical records submitted for the study.
- Encounter data omission rate: The denominator for the encounter data omission rate is the number of dates of service identified in the medical records, and the numerator is the number of dates of service from the medical records that were not found in DHCS' electronic encounter data.

HSAG evaluated the medical record omission rate and the encounter data omission rate using the date of service selected by HSAG and an additional date of service selected by the provider, if one was available. For both rates, lower values indicate better performance.

Table H.4—Encounter Data Completeness Summary for CalOptima

Note: Omission rates of less than 10 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standards.

"S" indicates that the numerator for this indicator was less than 11; therefore, this report suppresses the rate to satisfy the Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy Rule's de-identification standard.

	Medical Record Omission			Encounter Data Omission		
Key Data Elements	**Denominator**	**CalOptima Rate**	**Statewide Rate**	**Denominator**	**CalOptima Rate**	**Statewide Rate**
Date of Service	577	2.4%+	**8.6%+**	597	5.7%+	**3.7%+**
Diagnosis Code	1,653	4.5%+	**11.5%**	1,623	2.7%+	**2.1%+**
Procedure Code	1,374	14.3%	**19.4%**	1,301	9.5%+	**8.5%+**
Procedure Code Modifier	959	23.5%	**28.3%**	759	3.3%+	**5.0%+**
Rendering Provider Name	577	2.9%+	**9.1%+**	594	5.7%+	**3.6%+**

Encounter Data Accuracy

Table H.5 displays the element accuracy rates for each key data element and the all-element accuracy rate for CalOptima. Encounter data accuracy was evaluated for dates of service that existed in both DHCS' electronic encounter data and the medical records and had values present in both data sources for the evaluated data element. Using the data element *Diagnosis Code* as an example, the list below shows the specifications for the denominator and the numerator:

- Denominator: The denominator for the accuracy rate is the number of diagnosis codes associated with dates of service that existed in both DHCS' electronic encounter data and the medical records. In addition, both data sources had values for the data element *Diagnosis Code*.
- Numerator: The numerator for the accuracy rate is the number of diagnosis codes in the denominator that were correctly coded based on the medical records submitted for the study.

The all-element accuracy rate denotes the percentage of dates of service with all data elements coded correctly among all validated dates of service from the electronic encounter data.

Table H.5—Encounter Data Accuracy Summary for CalOptima

Note: Data element accuracy rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard. The all-element accuracy rates greater than 80 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

— Indicates that the error type analysis was not applicable to a given data element, or the denominator for the error rate was too small (i.e., less than 30) to report a valid rate and/or the numerator for the error rate was less than 11.

[1]This data element was calculated based on the results from the *Diagnosis Code, Procedure Code,* and *Procedure Code Modifier* data elements.

Key Data Element	Denominator	CalOptima Accuracy Rate	Statewide Accuracy Rate	Main Error Type
Diagnosis Code	1,579	99.3%+	**99.5%+**	—
Procedure Code	1,177	98.9%+	**98.7%+**	—
Procedure Code Modifier	734	98.8%+	**99.7%+**	—
Rendering Provider Name	560	27.3%	**63.6%**	Incorrect name (98.8%)
All-Element Accuracy	563	16.7%	**45.2%**	—
All-Element Accuracy Excluding Rendering Provider Name[1]	563	63.8%	**69.1%**	—

Appendix I. Findings for CalViva Health (CalViva)

Medical Record Procurement Status

Table I.1 shows the medical record procurement status (i.e., number of medical records submitted for either the sampled date of service or the second date of service) for CalViva.

Table I.1—Medical Record Procurement Status for CalViva

Note: Medical record procurement rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

Plan	Initial Sample Size	Number of Records Submitted	Percentage of Records Submitted
CalViva	411	327	79.6%
Statewide Total	**10,590**	**9,358**	**88.4%**

Table I.2 lists the reasons for missing medical records for CalViva.

Table I.2—Reasons for Missing Medical Records for CalViva

Note: Total may not equal 100 percent due to rounding.

Non-Submission Reason	Count	Percent
Member was not a patient of the practice.	41	48.8%
Member was a patient of the practice; however, no documentation was available for requested dates of service.	29	34.5%
Non-responsive provider or provider did not respond in a timely manner.	10	11.9%
Medical records were not located at the facility.	3	3.6%
Provider refused to release medical records.	1	1.2%
CalViva Total	**84**	**100.0%**

Table I.3 displays the number and percent of records with a second date of service submitted for CalViva.

Table I.3—Medical Record Submission Status for Second Date of Service for CalViva

Plan	Number of Records Submitted	Number of Records Submitted with Second Date of Service	Percent
CalViva	327	158	48.3%
Statewide Total	**9,358**	**5,600**	**59.8%**

Encounter Data Completeness

Table I.4 displays the medical record omission and encounter data omission rates for CalViva. Using the data element *Date of Service* as an example, the list below shows the specifications for the denominator and the numerator:

- Medical record omission rate: The denominator for the medical record omission rate is the number of dates of service identified in DHCS' electronic encounter data, and the numerator is the number of dates of service identified in DHCS' electronic encounter data that were not found in the medical records submitted for the study.
- Encounter data omission rate: The denominator for the encounter data omission rate is the number of dates of service identified in the medical records, and the numerator is the number of dates of service from the medical records that were not found in DHCS' electronic encounter data.

HSAG evaluated the medical record omission rate and the encounter data omission rate using the date of service selected by HSAG and an additional date of service selected by the provider, if one was available. For both rates, lower values indicate better performance.

Table I.4—Encounter Data Completeness Summary for CalViva

Note: Omission rates of less than 10 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standards.

"S" indicates that the numerator for this indicator was less than 11; therefore, this report suppresses the rate to satisfy the Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy Rule's de-identification standard.

	Medical Record Omission			Encounter Data Omission		
Key Data Elements	**Denominator**	**CalViva Rate**	**Statewide Rate**	**Denominator**	**CalViva Rate**	**Statewide Rate**
Date of Service	536	17.4%	**8.6%⁺**	452	S⁺	**3.7%⁺**
Diagnosis Code	1,442	19.6%	**11.5%**	1,183	1.9%⁺	**2.1%⁺**
Procedure Code	1,103	23.1%	**19.4%**	945	10.3%	**8.5%⁺**
Procedure Code Modifier	442	27.1%	**28.3%**	348	7.5%⁺	**5.0%⁺**
Rendering Provider Name	536	18.3%	**9.1%⁺**	447	S⁺	**3.6%⁺**

Encounter Data Accuracy

Table I.5 displays the element accuracy rates for each key data element and the all-element accuracy rate for CalViva. Encounter data accuracy was evaluated for dates of service that existed in both DHCS' electronic encounter data and the medical records and had values present in both data sources for the evaluated data element. Using the data element *Diagnosis Code* as an example, the list below shows the specifications for the denominator and the numerator:

- Denominator: The denominator for the accuracy rate is the number of diagnosis codes associated with dates of service that existed in both DHCS' electronic encounter data and the medical records. In addition, both data sources had values for the data element *Diagnosis Code*.
- Numerator: The numerator for the accuracy rate is the number of diagnosis codes in the denominator that were correctly coded based on the medical records submitted for the study.

The all-element accuracy rate denotes the percentage of dates of service with all data elements coded correctly among all validated dates of service from the electronic encounter data.

Table I.5—Encounter Data Accuracy Summary for CalViva

Note: Data element accuracy rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard. The all-element accuracy rates greater than 80 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

— Indicates that the error type analysis was not applicable to a given data element, or the denominator for the error rate was too small (i.e., less than 30) to report a valid rate and/or the numerator for the error rate was less than 11.

[1]This data element was calculated based on the results from the *Diagnosis Code, Procedure Code,* and *Procedure Code Modifier* data elements.

Key Data Element	Denominator	CalViva Accuracy Rate	Statewide Accuracy Rate	Main Error Type
Diagnosis Code	1,160	99.7%+	**99.5%+**	—
Procedure Code	848	99.5%+	**98.7%+**	—
Procedure Code Modifier	322	99.7%+	**99.7%+**	—
Rendering Provider Name	438	42.7%	**63.6%**	Incorrect name (95.2%); Illegible name in medical records (4.8%)
All-Element Accuracy	443	28.0%	**45.2%**	—
All-Element Accuracy Excluding Rendering Provider Name[1]	443	68.2%	**69.1%**	—

Appendix J. Findings for CenCal Health (CenCal)

Medical Record Procurement Status

Table J.1 shows the medical record procurement status (i.e., number of medical records submitted for either the sampled date of service or the second date of service) for CenCal.

Table J.1—Medical Record Procurement Status for CenCal

Note: Medical record procurement rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

Plan	Initial Sample Size	Number of Records Submitted	Percentage of Records Submitted
CenCal	411	404	98.3%+
Statewide Total	**10,590**	**9,358**	**88.4%**

Table J.2 lists the reasons for missing medical records for CenCal.

Table J.2—Reasons for Missing Medical Records for CenCal

Note: Total may not equal 100 percent due to rounding.

Non-Submission Reason	Count	Percent
Non-responsive provider or provider did not respond in a timely manner.	4	57.1%
Closed facility.	2	28.6%
Member was not a patient of the practice.	1	14.3%
CenCal Total	**7**	**100.0%**

Table J.3 displays the number and percent of records with a second date of service submitted for CenCal.

Table J.3—Medical Record Submission Status for Second Date of Service for CenCal

Plan	Number of Records Submitted	Number of Records Submitted with Second Date of Service	Percent
CenCal	404	246	60.9%
Statewide Total	**9,358**	**5,600**	**59.8%**

Encounter Data Completeness

Table J.4 displays the medical record omission and encounter data omission rates for CenCal. Using the data element *Date of Service* as an example, the list below shows the specifications for the denominator and the numerator:

- Medical record omission rate: The denominator for the medical record omission rate is the number of dates of service identified in DHCS' electronic encounter data, and the numerator is the number of dates of service identified in DHCS' electronic encounter data that were not found in the medical records submitted for the study.
- Encounter data omission rate: The denominator for the encounter data omission rate is the number of dates of service identified in the medical records, and the numerator is the number of dates of service from the medical records that were not found in DHCS' electronic encounter data.

HSAG evaluated the medical record omission rate and the encounter data omission rate using the date of service selected by HSAG and an additional date of service selected by the provider, if one was available. For both rates, lower values indicate better performance.

Table J.4—Encounter Data Completeness Summary for CenCal

Note: Omission rates of less than 10 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standards.

"S" indicates that the numerator for this indicator was less than 11; therefore, this report suppresses the rate to satisfy the Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy Rule's de-identification standard.

	Medical Record Omission			Encounter Data Omission		
Key Data Elements	**Denominator**	**CenCal Rate**	**Statewide Rate**	**Denominator**	**CenCal Rate**	**Statewide Rate**
Date of Service	598	2.3%+	**8.6%+**	605	3.5%+	**3.7%+**
Diagnosis Code	1,233	4.7%+	**11.5%**	1,200	2.1%+	**2.1%+**
Procedure Code	1,343	10.6%	**19.4%**	1,274	5.8%+	**8.5%+**
Procedure Code Modifier	494	20.0%	**28.3%**	403	S+	**5.0%+**
Rendering Provider Name	598	4.0%+	**9.1%+**	595	3.5%+	**3.6%+**

Encounter Data Accuracy

Table J.5 displays the element accuracy rates for each key data element and the all-element accuracy rate for CenCal. Encounter data accuracy was evaluated for dates of service that existed in both DHCS' electronic encounter data and the medical records and had values present in both data sources for the evaluated data element. Using the data element *Diagnosis Code* as an example, the list below shows the specifications for the denominator and the numerator:

- Denominator: The denominator for the accuracy rate is the number of diagnosis codes associated with dates of service that existed in both DHCS' electronic encounter data and the medical records. In addition, both data sources had values for the data element *Diagnosis Code*.
- Numerator: The numerator for the accuracy rate is the number of diagnosis codes in the denominator that were correctly coded based on the medical records submitted for the study.

The all-element accuracy rate denotes the percentage of dates of service with all data elements coded correctly among all validated dates of service from the electronic encounter data.

Table J.5—Encounter Data Accuracy Summary for CenCal

Note: Data element accuracy rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard. The all-element accuracy rates greater than 80 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

— Indicates that the error type analysis was not applicable to a given data element, or the denominator for the error rate was too small (i.e., less than 30) to report a valid rate and/or the numerator for the error rate was less than 11.

[1]This data element was calculated based on the results from the *Diagnosis Code, Procedure Code,* and *Procedure Code Modifier* data elements.

Key Data Element	Denominator	CenCal Accuracy Rate	Statewide Accuracy Rate	Main Error Type
Diagnosis Code	1,175	99.3%+	**99.5%+**	—
Procedure Code	1,200	99.6%+	**98.7%+**	—
Procedure Code Modifier	395	99.2%+	**99.7%+**	—

Key Data Element	Denominator	CenCal Accuracy Rate	Statewide Accuracy Rate	Main Error Type
Rendering Provider Name	574	71.3%	**63.6%**	Incorrect name (97.6%)
All-Element Accuracy	584	52.1%	**45.2%**	—
All-Element Accuracy Excluding Rendering Provider Name[1]	584	75.5%	**69.1%**	—

Appendix K. Findings for Central California Alliance for Health (CCAH)

Medical Record Procurement Status

Table K.1 shows the medical record procurement status (i.e., number of medical records submitted for either the sampled date of service or the second date of service) for CCAH.

Table K.1—Medical Record Procurement Status for CCAH

Note: Medical record procurement rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

Plan	Initial Sample Size	Number of Records Submitted	Percentage of Records Submitted
CCAH	411	402	97.8%+
Statewide Total	**10,590**	**9,358**	**88.4%**

Table K.2 lists the reasons for missing medical records for CCAH.

Table K.2—Reasons for Missing Medical Records for CCAH

Note: Total may not equal 100 percent due to rounding.

Non-Submission Reason	Count	Percent
Member was a patient of the practice; however, no documentation was available for requested dates of service.	3	33.3%
Other.	3	33.3%
Closed facility.	1	11.1%
Medical records were not located at the facility.	1	11.1%
Non-responsive provider or provider did not respond in a timely manner.	1	11.1%
CCAH Total	**9**	**100.0%**

Table K.3 displays the number and percent of records with a second date of service submitted for CCAH.

Table K.3—Medical Record Submission Status for Second Date of Service for CCAH

Plan	Number of Records Submitted	Number of Records Submitted with Second Date of Service	Percent
CCAH	402	236	58.7%
Statewide Total	**9,358**	**5,600**	**59.8%**

Encounter Data Completeness

Table K.4 displays the medical record omission and encounter data omission rates for CCAH. Using the data element *Date of Service* as an example, the list below shows the specifications for the denominator and the numerator:

- Medical record omission rate: The denominator for the medical record omission rate is the number of dates of service identified in DHCS' electronic encounter data, and the numerator is the number of dates of service identified in DHCS' electronic encounter data that were not found in the medical records submitted for the study.
- Encounter data omission rate: The denominator for the encounter data omission rate is the number of dates of service identified in the medical records, and the numerator is the number of dates of service from the medical records that were not found in DHCS' electronic encounter data.

HSAG evaluated the medical record omission rate and the encounter data omission rate using the date of service selected by HSAG and an additional date of service selected by the provider, if one was available. For both rates, lower values indicate better performance.

Table K.4—Encounter Data Completeness Summary for CCAH

Note: Omission rates of less than 10 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standards.

"S" indicates that the numerator for this indicator was less than 11; therefore, this report suppresses the rate to satisfy the Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy Rule's de-identification standard.

	Medical Record Omission			Encounter Data Omission		
Key Data Elements	**Denominator**	**CCAH Rate**	**Statewide Rate**	**Denominator**	**CCAH Rate**	**Statewide Rate**
Date of Service	620	2.3%+	**8.6%+**	623	2.7%+	**3.7%+**
Diagnosis Code	1,414	6.5%+	**11.5%**	1,343	1.6%+	**2.1%+**
Procedure Code	1,273	14.4%	**19.4%**	1,234	11.7%	**8.5%+**
Procedure Code Modifier	736	23.1%	**28.3%**	575	S+	**5.0%+**
Rendering Provider Name	620	2.9%+	**9.1%+**	619	2.7%+	**3.6%+**

Encounter Data Accuracy

Table K.5 displays the element accuracy rates for each key data element and the all-element accuracy rate for CCAH. Encounter data accuracy was evaluated for dates of service that existed in both DHCS' electronic encounter data and the medical records and had values present in both data sources for the evaluated data element. Using the data element *Diagnosis Code* as an example, the list below shows the specifications for the denominator and the numerator:

- Denominator: The denominator for the accuracy rate is the number of diagnosis codes associated with dates of service that existed in both DHCS' electronic encounter data and the medical records. In addition, both data sources had values for the data element *Diagnosis Code*.
- Numerator: The numerator for the accuracy rate is the number of diagnosis codes in the denominator that were correctly coded based on the medical records submitted for the study.

The all-element accuracy rate denotes the percentage of dates of service with all data elements coded correctly among all validated dates of service from the electronic encounter data.

Table K.5—Encounter Data Accuracy Summary for CCAH

Note: Data element accuracy rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard. The all-element accuracy rates greater than 80 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

— Indicates that the error type analysis was not applicable to a given data element, or the denominator for the error rate was too small (i.e., less than 30) to report a valid rate and/or the numerator for the error rate was less than 11.

[1]This data element was calculated based on the results from the *Diagnosis Code, Procedure Code,* and *Procedure Code Modifier* data elements.

Key Data Element	Denominator	CCAH Accuracy Rate	Statewide Accuracy Rate	Main Error Type
Diagnosis Code	1,322	98.9%+	**99.5%+**	—
Procedure Code	1,090	99.6%+	**98.7%+**	—
Procedure Code Modifier	566	99.8%+	**99.7%+**	—
Rendering Provider Name	602	53.5%	**63.6%**	Incorrect name (95.4%); Illegible name in medical records (4.6%)
All-Element Accuracy	606	35.1%	**45.2%**	—
All-Element Accuracy Excluding Rendering Provider Name[1]	606	65.7%	**69.1%**	—

Appendix L. Findings for Community Health Group Partnership Plan (CHG)

Medical Record Procurement Status

Table L.1 shows the medical record procurement status (i.e., number of medical records submitted for either the sampled date of service or the second date of service) for CHG.

Table L.1—Medical Record Procurement Status for CHG

Note: Medical record procurement rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

Plan	Initial Sample Size	Number of Records Submitted	Percentage of Records Submitted
CHG	411	383	93.2%+
Statewide Total	**10,590**	**9,358**	**88.4%**

Table L.2 lists the reasons for missing medical records for CHG.

Table L.2—Reasons for Missing Medical Records for CHG

Note: Total may not equal 100 percent due to rounding.

Non-Submission Reason	Count	Percent
Non-responsive provider or provider did not respond in a timely manner.	25	89.3%
Member was a patient of the practice; however, no documentation was available for requested dates of service.	2	7.1%
Medical records were not located at the facility.	1	3.6%
CHG Total	**28**	**100.0%**

Table L.3 displays the number and percent of records with a second date of service submitted for CHG.

Table L.3—Medical Record Submission Status for Second Date of Service for CHG

Plan	Number of Records Submitted	Number of Records Submitted with Second Date of Service	Percent
CHG	383	241	62.9%
Statewide Total	**9,358**	**5,600**	**59.8%**

Encounter Data Completeness

Table L.4 displays the medical record omission and encounter data omission rates for CHG. Using the data element *Date of Service* as an example, the list below shows the specifications for the denominator and the numerator:

- Medical record omission rate: The denominator for the medical record omission rate is the number of dates of service identified in DHCS' electronic encounter data, and the numerator is the number of dates of service identified in DHCS' electronic encounter data that were not found in the medical records submitted for the study.
- Encounter data omission rate: The denominator for the encounter data omission rate is the number of dates of service identified in the medical records, and the numerator is the number of dates of service from the medical records that were not found in DHCS' electronic encounter data.

HSAG evaluated the medical record omission rate and the encounter data omission rate using the date of service selected by HSAG and an additional date of service selected by the provider, if one was available. For both rates, lower values indicate better performance.

Table L.4—Encounter Data Completeness Summary for CHG

Note: Omission rates of less than 10 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standards.

"S" indicates that the numerator for this indicator was less than 11; therefore, this report suppresses the rate to satisfy the Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy Rule's de-identification standard.

	Medical Record Omission			Encounter Data Omission		
Key Data Elements	**Denominator**	**CHG Rate**	**Statewide Rate**	**Denominator**	**CHG Rate**	**Statewide Rate**
Date of Service	598	5.4%+	**8.6%+**	592	4.4%+	**3.7%+**
Diagnosis Code	1,815	8.3%+	**11.5%**	1,702	2.2%+	**2.1%+**
Procedure Code	1,417	15.4%	**19.4%**	1,276	6.0%+	**8.5%+**
Procedure Code Modifier	435	20.9%	**28.3%**	377	8.8%+	**5.0%+**
Rendering Provider Name	598	6.2%+	**9.1%+**	587	4.4%+	**3.6%+**

Encounter Data Accuracy

Table L.5 displays the element accuracy rates for each key data element and the all-element accuracy rate for CHG. Encounter data accuracy was evaluated for dates of service that existed in both DHCS' electronic encounter data and the medical records and had values present in both data sources for the evaluated data element. Using the data element *Diagnosis Code* as an example, the list below shows the specifications for the denominator and the numerator:

- Denominator: The denominator for the accuracy rate is the number of diagnosis codes associated with dates of service that existed in both DHCS' electronic encounter data and the medical records. In addition, both data sources had values for the data element *Diagnosis Code*.
- Numerator: The numerator for the accuracy rate is the number of diagnosis codes in the denominator that were correctly coded based on the medical records submitted for the study.

The all-element accuracy rate denotes the percentage of dates of service with all data elements coded correctly among all validated dates of service from the electronic encounter data.

Table L.5—Encounter Data Accuracy Summary for CHG

Note: Data element accuracy rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard. The all-element accuracy rates greater than 80 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

— Indicates that the error type analysis was not applicable to a given data element, or the denominator for the error rate was too small (i.e., less than 30) to report a valid rate and/or the numerator for the error rate was less than 11.

[1]This data element was calculated based on the results from the *Diagnosis Code, Procedure Code,* and *Procedure Code Modifier* data elements.

Key Data Element	Denominator	CHG Accuracy Rate	Statewide Accuracy Rate	Main Error Type
Diagnosis Code	1,665	99.4%+	**99.5%+**	—
Procedure Code	1,199	99.1%+	**98.7%+**	—
Procedure Code Modifier	344	100.0%+	**99.7%+**	—
Rendering Provider Name	561	77.5%	**63.6%**	Incorrect name (97.6%)
All-Element Accuracy	566	51.8%	**45.2%**	—
All-Element Accuracy Excluding Rendering Provider Name[1]	566	66.8%	**69.1%**	—

Appendix M. Findings for Contra Costa Health Plan (CCHP)

Medical Record Procurement Status

Table M.1 shows the medical record procurement status (i.e., number of medical records submitted for either the sampled date of service or the second date of service) for CCHP.

Table M.1—Medical Record Procurement Status for CCHP

Note: Medical record procurement rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

Plan	Initial Sample Size	Number of Records Submitted	Percentage of Records Submitted
CCHP	411	352	85.6%
Statewide Total	**10,590**	**9,358**	**88.4%**

Table M.2 lists the reasons for missing medical records for CCHP.

Table M.2—Reasons for Missing Medical Records for CCHP

Note: Total may not equal 100 percent due to rounding.

Non-Submission Reason	Count	Percent
Non-responsive provider or provider did not respond in a timely manner.	42	71.2%
Closed facility.	7	11.9%
Member was not a patient of the practice.	5	8.5%
Member was a patient of the practice; however, no documentation was available for requested dates of service.	3	5.1%
Medical records were not located at the facility.	1	1.7%
Other.	1	1.7%
CCHP Total	**59**	**100.0%**

Table M.3 displays the number and percent of records with a second date of service submitted for CCHP.

Table M.3—Medical Record Submission Status for Second Date of Service for CCHP

Plan	Number of Records Submitted	Number of Records Submitted with Second Date of Service	Percent
CCHP	352	235	66.8%
Statewide Total	**9,358**	**5,600**	**59.8%**

Encounter Data Completeness

Table M.4 displays the medical record omission and encounter data omission rates for CCHP. Using the data element *Date of Service* as an example, the list below shows the specifications for the denominator and the numerator:

- Medical record omission rate: The denominator for the medical record omission rate is the number of dates of service identified in DHCS' electronic encounter data, and the numerator is the number of dates of service identified in DHCS' electronic encounter data that were not found in the medical records submitted for the study.
- Encounter data omission rate: The denominator for the encounter data omission rate is the number of dates of service identified in the medical records, and the numerator is the number of dates of service from the medical records that were not found in DHCS' electronic encounter data.

HSAG evaluated the medical record omission rate and the encounter data omission rate using the date of service selected by HSAG and an additional date of service selected by the provider, if one was available. For both rates, lower values indicate better performance.

Table M.4—Encounter Data Completeness Summary for CCHP

Note: Omission rates of less than 10 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standards.

"S" indicates that the numerator for this indicator was less than 11; therefore, this report suppresses the rate to satisfy the Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy Rule's de-identification standard.

	Medical Record Omission			Encounter Data Omission		
Key Data Elements	**Denominator**	**CCHP Rate**	**Statewide Rate**	**Denominator**	**CCHP Rate**	**Statewide Rate**
Date of Service	570	11.4%	**8.6%⁺**	549	8.0%⁺	**3.7%⁺**
Diagnosis Code	1,318	10.3%	**11.5%**	1,240	4.7%⁺	**2.1%⁺**
Procedure Code	1,149	18.7%	**19.4%**	999	6.5%⁺	**8.5%⁺**
Procedure Code Modifier	486	24.9%	**28.3%**	384	4.9%⁺	**5.0%⁺**
Rendering Provider Name	570	11.8%	**9.1%⁺**	546	7.9%⁺	**3.6%⁺**

Encounter Data Accuracy

Table M.5 displays the element accuracy rates for each key data element and the all-element accuracy rate for CCHP. Encounter data accuracy was evaluated for dates of service that existed in both DHCS' electronic encounter data and the medical records and had values present in both data sources for the evaluated data element. Using the data element *Diagnosis Code* as an example, the list below shows the specifications for the denominator and the numerator:

- Denominator: The denominator for the accuracy rate is the number of diagnosis codes associated with dates of service that existed in both DHCS' electronic encounter data and the medical records. In addition, both data sources had values for the data element *Diagnosis Code*.
- Numerator: The numerator for the accuracy rate is the number of diagnosis codes in the denominator that were correctly coded based on the medical records submitted for the study.

The all-element accuracy rate denotes the percentage of dates of service with all data elements coded correctly among all validated dates of service from the electronic encounter data.

Table M.5—Encounter Data Accuracy Summary for CCHP

Note: Data element accuracy rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard. The all-element accuracy rates greater than 80 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

— Indicates that the error type analysis was not applicable to a given data element, or the denominator for the error rate was too small (i.e., less than 30) to report a valid rate and/or the numerator for the error rate was less than 11.

[1]This data element was calculated based on the results from the *Diagnosis Code, Procedure Code,* and *Procedure Code Modifier* data elements.

Key Data Element	Denominator	CCHP Accuracy Rate	Statewide Accuracy Rate	Main Error Type
Diagnosis Code	1,182	99.8%+	**99.5%+**	—
Procedure Code	934	98.5%+	**98.7%+**	—
Procedure Code Modifier	365	100.0%+	**99.7%+**	—
Rendering Provider Name	503	79.1%	**63.6%**	Incorrect name (100.0%)
All-Element Accuracy	505	64.2%	**45.2%**	—
All-Element Accuracy Excluding Rendering Provider Name[1]	505	80.8%+	**69.1%**	—

Appendix N. Findings for Gold Coast Health Plan (GCHP)

Medical Record Procurement Status

Table N.1 shows the medical record procurement status (i.e., number of medical records submitted for either the sampled date of service or the second date of service) for GCHP.

Table N.1—Medical Record Procurement Status for GCHP

Note: Medical record procurement rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

Plan	Initial Sample Size	Number of Records Submitted	Percentage of Records Submitted
GCHP	411	184	44.8%
Statewide Total	**10,590**	**9,358**	**88.4%**

Table N.2 lists the reasons for missing medical records for GCHP.

Table N.2—Reasons for Missing Medical Records for GCHP

Note: Total may not equal 100 percent due to rounding.

Non-Submission Reason	Count	Percent
Non-responsive provider or provider did not respond in a timely manner.	207	91.2%
Member was a patient of the practice; however, no documentation was available for requested dates of service.	14	6.2%
Closed facility.	3	1.3%
Member was not a patient of the practice.	1	0.4%
Medical records were not located at the facility.	1	0.4%
Other.	1	0.4%
GCHP Total	**227**	**100.0%**

Table N.3 displays the number and percent of records with a second date of service submitted for GCHP.

Table N.3—Medical Record Submission Status for Second Date of Service for GCHP

Plan	Number of Records Submitted	Number of Records Submitted with Second Date of Service	Percent
GCHP	184	121	65.8%
Statewide Total	**9,358**	**5,600**	**59.8%**

Encounter Data Completeness

Table N.4 displays the medical record omission and encounter data omission rates for GCHP. Using the data element *Date of Service* as an example, the list below shows the specifications for the denominator and the numerator:

- Medical record omission rate: The denominator for the medical record omission rate is the number of dates of service identified in DHCS' electronic encounter data, and the numerator is the number of dates of service identified in DHCS' electronic encounter data that were not found in the medical records submitted for the study.
- Encounter data omission rate: The denominator for the encounter data omission rate is the number of dates of service identified in the medical records, and the numerator is the number of dates of service from the medical records that were not found in DHCS' electronic encounter data.

HSAG evaluated the medical record omission rate and the encounter data omission rate using the date of service selected by HSAG and an additional date of service selected by the provider, if one was available. For both rates, lower values indicate better performance.

Table N.4—Encounter Data Completeness Summary for GCHP

Note: Omission rates of less than 10 percent are shaded in gray and denoted with a cross ($^{+}$) to show that they met the EDV study standards.

"S" indicates that the numerator for this indicator was less than 11; therefore, this report suppresses the rate to satisfy the Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy Rule's de-identification standard.

	Medical Record Omission			Encounter Data Omission		
Key Data Elements	**Denominator**	**GCHP Rate**	**Statewide Rate**	**Denominator**	**GCHP Rate**	**Statewide Rate**
Date of Service	488	49.8%	**8.6%⁺**	263	6.8%⁺	**3.7%⁺**
Diagnosis Code	1,125	44.2%	**11.5%**	661	5.0%⁺	**2.1%⁺**
Procedure Code	829	48.5%	**19.4%**	485	12.0%	**8.5%⁺**
Procedure Code Modifier	336	59.5%	**28.3%**	160	15.0%	**5.0%⁺**
Rendering Provider Name	488	51.4%	**9.1%⁺**	252	6.0%⁺	**3.6%⁺**

Encounter Data Accuracy

Table N.5 displays the element accuracy rates for each key data element and the all-element accuracy rate for GCHP. Encounter data accuracy was evaluated for dates of service that existed in both DHCS' electronic encounter data and the medical records and had values present in both data sources for the evaluated data element. Using the data element *Diagnosis Code* as an example, the list below shows the specifications for the denominator and the numerator:

- Denominator: The denominator for the accuracy rate is the number of diagnosis codes associated with dates of service that existed in both DHCS' electronic encounter data and the medical records. In addition, both data sources had values for the data element *Diagnosis Code*.
- Numerator: The numerator for the accuracy rate is the number of diagnosis codes in the denominator that were correctly coded based on the medical records submitted for the study.

The all-element accuracy rate denotes the percentage of dates of service with all data elements coded correctly among all validated dates of service from the electronic encounter data.

Table N.5—Encounter Data Accuracy Summary for GCHP

Note: Data element accuracy rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard. The all-element accuracy rates greater than 80 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

— Indicates that the error type analysis was not applicable to a given data element, or the denominator for the error rate was too small (i.e., less than 30) to report a valid rate and/or the numerator for the error rate was less than 11.

[1]This data element was calculated based on the results from the *Diagnosis Code, Procedure Code,* and *Procedure Code Modifier* data elements.

Key Data Element	Denominator	GCHP Accuracy Rate	Statewide Accuracy Rate	Main Error Type
Diagnosis Code	628	98.9%+	**99.5%+**	—
Procedure Code	427	99.8%+	**98.7%+**	—
Procedure Code Modifier	136	99.3%+	**99.7%+**	—
Rendering Provider Name	237	89.0%	**63.6%**	—
All-Element Accuracy	245	59.6%	**45.2%**	—
All-Element Accuracy Excluding Rendering Provider Name[1]	245	69.4%	**69.1%**	—

Appendix O. Findings for Health Net Community Solutions, Inc. (Health Net)

Medical Record Procurement Status

Table O.1 shows the medical record procurement status (i.e., number of medical records submitted for either the sampled date of service or the second date of service) for Health Net.

Table O.1—Medical Record Procurement Status for Health Net

Note: Medical record procurement rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

Plan	Initial Sample Size	Number of Records Submitted	Percentage of Records Submitted
Health Net	411	316	76.9%
Statewide Total	**10,590**	**9,358**	**88.4%**

Table O.2 lists the reasons for missing medical records for Health Net.

Table O.2—Reasons for Missing Medical Records for Health Net

Note: Total may not equal 100 percent due to rounding.

Non-Submission Reason	Count	Percent
Member was not a patient of the practice.	52	54.7%
Member was a patient of the practice; however, no documentation was available for requested dates of service.	17	17.9%
Non-responsive provider or provider did not respond in a timely manner.	14	14.7%
Medical records were not located at the facility.	10	10.5%
Other.	1	1.1%
Provider refused to release medical records.	1	1.1%
Health Net Total	**95**	**100.0%**

Table O.3 displays the number and percent of records with a second date of service submitted for Health Net.

Table O.3—Medical Record Submission Status for Second Date of Service for Health Net

Plan	Number of Records Submitted	Number of Records Submitted with Second Date of Service	Percent
Health Net	316	158	50.0%
Statewide Total	**9,358**	**5,600**	**59.8%**

Encounter Data Completeness

Table O.4 displays the medical record omission and encounter data omission rates for Health Net. Using the data element *Date of Service* as an example, the list below shows the specifications for the denominator and the numerator:

- Medical record omission rate: The denominator for the medical record omission rate is the number of dates of service identified in DHCS' electronic encounter data, and the numerator is the number of dates of service identified in DHCS' electronic encounter data that were not found in the medical records submitted for the study.
- Encounter data omission rate: The denominator for the encounter data omission rate is the number of dates of service identified in the medical records, and the numerator is the number of dates of service from the medical records that were not found in DHCS' electronic encounter data.

HSAG evaluated the medical record omission rate and the encounter data omission rate using the date of service selected by HSAG and an additional date of service selected by the provider, if one was available. For both rates, lower values indicate better performance.

Table O.4—Encounter Data Completeness Summary for Health Net

Note: Omission rates of less than 10 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standards.

"S" indicates that the numerator for this indicator was less than 11; therefore, this report suppresses the rate to satisfy the Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy Rule's de-identification standard.

	Medical Record Omission			Encounter Data Omission		
Key Data Elements	**Denominator**	**Health Net Rate**	**Statewide Rate**	**Denominator**	**Health Net Rate**	**Statewide Rate**
Date of Service	546	18.3%	**8.6%⁺**	455	S⁺	**3.7%⁺**
Diagnosis Code	1,514	19.3%	**11.5%**	1,241	1.5%⁺	**2.1%⁺**
Procedure Code	1,307	30.8%	**19.4%**	1,000	9.6%⁺	**8.5%⁺**
Procedure Code Modifier	421	37.5%	**28.3%**	289	9.0%⁺	**5.0%⁺**
Rendering Provider Name	546	18.5%	**9.1%⁺**	454	S⁺	**3.6%⁺**

Encounter Data Accuracy

Table O.5 displays the element accuracy rates for each key data element and the all-element accuracy rate for Health Net. Encounter data accuracy was evaluated for dates of service that existed in both DHCS' electronic encounter data and the medical records and had values present in both data sources for the evaluated data element. Using the data element *Diagnosis Code* as an example, the list below shows the specifications for the denominator and the numerator:

- Denominator: The denominator for the accuracy rate is the number of diagnosis codes associated with dates of service that existed in both DHCS' electronic encounter data and the medical records. In addition, both data sources had values for the data element *Diagnosis Code*.
- Numerator: The numerator for the accuracy rate is the number of diagnosis codes in the denominator that were correctly coded based on the medical records submitted for the study.

The all-element accuracy rate denotes the percentage of dates of service with all data elements coded correctly among all validated dates of service from the electronic encounter data.

Table O.5—Encounter Data Accuracy Summary for Health Net

Note: Data element accuracy rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard. The all-element accuracy rates greater than 80 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

— Indicates that the error type analysis was not applicable to a given data element, or the denominator for the error rate was too small (i.e., less than 30) to report a valid rate and/or the numerator for the error rate was less than 11.

[1]This data element was calculated based on the results from the *Diagnosis Code, Procedure Code,* and *Procedure Code Modifier* data elements.

Key Data Element	Denominator	Health Net Accuracy Rate	Statewide Accuracy Rate	Main Error Type
Diagnosis Code	1,222	99.5%+	**99.5%+**	—
Procedure Code	904	98.9%+	**98.7%+**	—
Procedure Code Modifier	263	99.6%+	**99.7%+**	—
Rendering Provider Name	445	57.5%	**63.6%**	Incorrect name (92.6%); Illegible name in medical records (7.4%)
All-Element Accuracy	446	38.3%	**45.2%**	—
All-Element Accuracy Excluding Rendering Provider Name[1]	446	64.6%	**69.1%**	—

Appendix P. Findings for Health Plan of San Joaquin (HPSJ)

Medical Record Procurement Status

Table P.1 shows the medical record procurement status (i.e., number of medical records submitted for either the sampled date of service or the second date of service) for HPSJ.

Table P.1—Medical Record Procurement Status for HPSJ

Note: Medical record procurement rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

Plan	Initial Sample Size	Number of Records Submitted	Percentage of Records Submitted
HPSJ	411	393	95.6%+
Statewide Total	**10,590**	**9,358**	**88.4%**

Table P.2 lists the reasons for missing medical records for HPSJ.

Table P.2—Reasons for Missing Medical Records for HPSJ

Note: Total may not equal 100 percent due to rounding.

Non-Submission Reason	Count	Percent
Non-responsive provider or provider did not respond in a timely manner.	12	66.7%
Member was a patient of the practice; however, no documentation was available for requested dates of service.	4	22.2%
Medical records were not located at the facility.	1	5.6%
Provider refused to release medical records.	1	5.6%
HPSJ Total	**18**	**100.0%**

Table P.3 displays the number and percent of records with a second date of service submitted for HPSJ.

Table P.3—Medical Record Submission Status for Second Date of Service for HPSJ

Plan	Number of Records Submitted	Number of Records Submitted with Second Date of Service	Percent
HPSJ	393	179	45.5%
Statewide Total	**9,358**	**5,600**	**59.8%**

Encounter Data Completeness

Table P.4 displays the medical record omission and encounter data omission rates for HPSJ. Using the data element *Date of Service* as an example, the list below shows the specifications for the denominator and the numerator:

- Medical record omission rate: The denominator for the medical record omission rate is the number of dates of service identified in DHCS' electronic encounter data, and the numerator is the number of dates of service identified in DHCS' electronic encounter data that were not found in the medical records submitted for the study.
- Encounter data omission rate: The denominator for the encounter data omission rate is the number of dates of service identified in the medical records, and the numerator is the number of dates of service from the medical records that were not found in DHCS' electronic encounter data.

HSAG evaluated the medical record omission rate and the encounter data omission rate using the date of service selected by HSAG and an additional date of service selected by the provider, if one was available. For both rates, lower values indicate better performance.

Table P.4—Encounter Data Completeness Summary for HPSJ

Note: Omission rates of less than 10 percent are shaded in gray and denoted with a cross ($^{+}$) to show that they met the EDV study standards.

"S" indicates that the numerator for this indicator was less than 11; therefore, this report suppresses the rate to satisfy the Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy Rule's de-identification standard.

	Medical Record Omission			Encounter Data Omission		
Key Data Elements	**Denominator**	**HPSJ Rate**	**Statewide Rate**	**Denominator**	**HPSJ Rate**	**Statewide Rate**
Date of Service	533	5.4%+	**8.6%+**	521	3.3%+	**3.7%+**
Diagnosis Code	1,418	7.1%+	**11.5%**	1,338	1.5%+	**2.1%+**
Procedure Code	1,119	10.8%	**19.4%**	1,047	4.7%+	**8.5%+**
Procedure Code Modifier	486	16.5%	**28.3%**	410	S+	**5.0%+**
Rendering Provider Name	533	6.0%+	**9.1%+**	517	3.1%+	**3.6%+**

Encounter Data Accuracy

Table P.5 displays the element accuracy rates for each key data element and the all-element accuracy rate for HPSJ. Encounter data accuracy was evaluated for dates of service that existed in both DHCS' electronic encounter data and the medical records and had values present in both data sources for the evaluated data element. Using the data element *Diagnosis Code* as an example, the list below shows the specifications for the denominator and the numerator:

- Denominator: The denominator for the accuracy rate is the number of diagnosis codes associated with dates of service that existed in both DHCS' electronic encounter data and the medical records. In addition, both data sources had values for the data element *Diagnosis Code*.
- Numerator: The numerator for the accuracy rate is the number of diagnosis codes in the denominator that were correctly coded based on the medical records submitted for the study.

The all-element accuracy rate denotes the percentage of dates of service with all data elements coded correctly among all validated dates of service from the electronic encounter data.

Table P.5—Encounter Data Accuracy Summary for HPSJ

Note: Data element accuracy rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard. The all-element accuracy rates greater than 80 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

— Indicates that the error type analysis was not applicable to a given data element, or the denominator for the error rate was too small (i.e., less than 30) to report a valid rate and/or the numerator for the error rate was less than 11.

[1]This data element was calculated based on the results from the *Diagnosis Code, Procedure Code,* and *Procedure Code Modifier* data elements.

Key Data Element	Denominator	HPSJ Accuracy Rate	Statewide Accuracy Rate	Main Error Type
Diagnosis Code	1,318	99.4%+	**99.5%+**	—
Procedure Code	998	95.8%+	**98.7%+**	Incorrect code (100.0%)
Procedure Code Modifier	406	99.3%+	**99.7%+**	—
Rendering Provider Name	501	62.7%	**63.6%**	Incorrect name (92.5%); Illegible name in medical records (7.5%)
All-Element Accuracy	504	46.6%	**45.2%**	—
All-Element Accuracy Excluding Rendering Provider Name[1]	504	71.8%	**69.1%**	—

Appendix Q. Findings for Health Plan of San Mateo (HPSM)

Medical Record Procurement Status

Table Q.1 shows the medical record procurement status (i.e., number of medical records submitted for either the sampled date of service or the second date of service) for HPSM.

Table Q.1—Medical Record Procurement Status for HPSM

Note: Medical record procurement rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

Plan	Initial Sample Size	Number of Records Submitted	Percentage of Records Submitted
HPSM	411	402	97.8%+
Statewide Total	**10,590**	**9,358**	**88.4%**

Table Q.2 lists the reasons for missing medical records for HPSM.

Table Q.2—Reasons for Missing Medical Records for HPSM

Note: Total may not equal 100 percent due to rounding.

Non-Submission Reason	Count	Percent
Member was a patient of the practice; however, no documentation was available for requested dates of service.	4	44.4%
Provider refused to release medical records.	2	22.2%
Member was not a patient of the practice.	1	11.1%
Medical records were not located at the facility.	1	11.1%
Non-responsive provider or provider did not respond in a timely manner.	1	11.1%
HPSM Total	**9**	**100.0%**

Table Q.3 displays the number and percent of records with a second date of service submitted for HPSM.

Table Q.3—Medical Record Submission Status for Second Date of Service for HPSM

Plan	Number of Records Submitted	Number of Records Submitted with Second Date of Service	Percent
HPSM	402	178	44.3%
Statewide Total	**9,358**	**5,600**	**59.8%**

Encounter Data Completeness

Table Q.4 displays the medical record omission and encounter data omission rates for HPSM. Using the data element *Date of Service* as an example, the list below shows the specifications for the denominator and the numerator:

- Medical record omission rate: The denominator for the medical record omission rate is the number of dates of service identified in DHCS' electronic encounter data, and the numerator is the number of dates of service identified in DHCS' electronic encounter data that were not found in the medical records submitted for the study.
- Encounter data omission rate: The denominator for the encounter data omission rate is the number of dates of service identified in the medical records, and the numerator is the number of dates of service from the medical records that were not found in DHCS' electronic encounter data.

HSAG evaluated the medical record omission rate and the encounter data omission rate using the date of service selected by HSAG and an additional date of service selected by the provider, if one was available. For both rates, lower values indicate better performance.

Table Q.4—Encounter Data Completeness Summary for HPSM

Note: Omission rates of less than 10 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standards.

"S" indicates that the numerator for this indicator was less than 11; therefore, this report suppresses the rate to satisfy the Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy Rule's de-identification standard.

	Medical Record Omission			Encounter Data Omission		
Key Data Elements	**Denominator**	**HPSM Rate**	**Statewide Rate**	**Denominator**	**HPSM Rate**	**Statewide Rate**
Date of Service	548	2.0%+	**8.6%+**	546	S+	**3.7%+**
Diagnosis Code	1,514	5.5%+	**11.5%**	1,441	S+	**2.1%+**
Procedure Code	1,103	18.5%	**19.4%**	957	6.1%+	**8.5%+**
Procedure Code Modifier	308	15.9%	**28.3%**	335	22.7%	**5.0%+**
Rendering Provider Name	548	2.6%+	**9.1%+**	543	S+	**3.6%+**

Encounter Data Accuracy

Table Q.5 displays the element accuracy rates for each key data element and the all-element accuracy rate for HPSM. Encounter data accuracy was evaluated for dates of service that existed in both DHCS' electronic encounter data and the medical records and had values present in both data sources for the evaluated data element. Using the data element *Diagnosis Code* as an example, the list below shows the specifications for the denominator and the numerator:

- Denominator: The denominator for the accuracy rate is the number of diagnosis codes associated with dates of service that existed in both DHCS' electronic encounter data and the medical records. In addition, both data sources had values for the data element *Diagnosis Code*.
- Numerator: The numerator for the accuracy rate is the number of diagnosis codes in the denominator that were correctly coded based on the medical records submitted for the study.

The all-element accuracy rate denotes the percentage of dates of service with all data elements coded correctly among all validated dates of service from the electronic encounter data.

Table Q.5—Encounter Data Accuracy Summary for HPSM

Note: Data element accuracy rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard. The all-element accuracy rates greater than 80 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

— Indicates that the error type analysis was not applicable to a given data element, or the denominator for the error rate was too small (i.e., less than 30) to report a valid rate and/or the numerator for the error rate was less than 11.

[1]This data element was calculated based on the results from the *Diagnosis Code, Procedure Code,* and *Procedure Code Modifier* data elements.

Key Data Element	Denominator	HPSM Accuracy Rate	Statewide Accuracy Rate	Main Error Type
Diagnosis Code	1,431	99.6%+	**99.5%+**	—
Procedure Code	899	98.8%+	**98.7%+**	—
Procedure Code Modifier	259	100.0%+	**99.7%+**	—
Rendering Provider Name	534	74.0%	**63.6%**	Incorrect name (95.7%)
All-Element Accuracy	537	41.9%	**45.2%**	—
All-Element Accuracy Excluding Rendering Provider Name[1]	537	59.6%	**69.1%**	—

Appendix R. Findings for Inland Empire Health Plan (IEHP)

Medical Record Procurement Status

Table R.1 shows the medical record procurement status (i.e., number of medical records submitted for either the sampled date of service or the second date of service) for IEHP.

Table R.1—Medical Record Procurement Status for IEHP

Note: Medical record procurement rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

Plan	Initial Sample Size	Number of Records Submitted	Percentage of Records Submitted
IEHP	411	397	96.6%+
Statewide Total	**10,590**	**9,358**	**88.4%**

Table R.2 lists the reasons for missing medical records for IEHP.

Table R.2—Reasons for Missing Medical Records for IEHP

Note: Total may not equal 100 percent due to rounding.

Non-Submission Reason	Count	Percent
Closed facility.	10	71.4%
Non-responsive provider or provider did not respond in a timely manner.	2	14.3%
Member was a patient of the practice; however, no documentation was available for requested dates of service.	1	7.1%
Member was not a patient of the practice.	1	7.1%
IEHP Total	**14**	**100.0%**

Table R.3 displays the number and percent of records with a second date of service submitted for IEHP.

Table R.3—Medical Record Submission Status for Second Date of Service for IEHP

Plan	Number of Records Submitted	Number of Records Submitted with Second Date of Service	Percent
IEHP	397	107	27.0%
Statewide Total	**9,358**	**5,600**	**59.8%**

Encounter Data Completeness

Table R.4 displays the medical record omission and encounter data omission rates for IEHP. Using the data element *Date of Service* as an example, the list below shows the specifications for the denominator and the numerator:

- Medical record omission rate: The denominator for the medical record omission rate is the number of dates of service identified in DHCS' electronic encounter data, and the numerator is the number of dates of service identified in DHCS' electronic encounter data that were not found in the medical records submitted for the study.
- Encounter data omission rate: The denominator for the encounter data omission rate is the number of dates of service identified in the medical records, and the numerator is the number of dates of service from the medical records that were not found in DHCS' electronic encounter data.

HSAG evaluated the medical record omission rate and the encounter data omission rate using the date of service selected by HSAG and an additional date of service selected by the provider, if one was available. For both rates, lower values indicate better performance.

Table R.4—Encounter Data Completeness Summary for IEHP

Note: Omission rates of less than 10 percent are shaded in gray and denoted with a cross ($^{+}$) to show that they met the EDV study standards.

"S" indicates that the numerator for this indicator was less than 11; therefore, this report suppresses the rate to satisfy the Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy Rule's de-identification standard.

	Medical Record Omission			Encounter Data Omission		
Key Data Elements	**Denominator**	**IEHP Rate**	**Statewide Rate**	**Denominator**	**IEHP Rate**	**Statewide Rate**
Date of Service	495	3.4%+	**8.6%+**	494	3.2%+	**3.7%+**
Diagnosis Code	1,493	9.6%+	**11.5%**	1,384	2.5%+	**2.1%+**
Procedure Code	1,202	19.5%	**19.4%**	1,063	8.9%+	**8.5%+**
Procedure Code Modifier	423	27.7%	**28.3%**	323	5.3%+	**5.0%+**
Rendering Provider Name	495	3.6%+	**9.1%+**	492	3.0%+	**3.6%+**

Encounter Data Accuracy

Table R.5 displays the element accuracy rates for each key data element and the all-element accuracy rate for IEHP. Encounter data accuracy was evaluated for dates of service that existed in both DHCS' electronic encounter data and the medical records and had values present in both data sources for the evaluated data element. Using the data element *Diagnosis Code* as an example, the list below shows the specifications for the denominator and the numerator:

- Denominator: The denominator for the accuracy rate is the number of diagnosis codes associated with dates of service that existed in both DHCS' electronic encounter data and the medical records. In addition, both data sources had values for the data element *Diagnosis Code*.
- Numerator: The numerator for the accuracy rate is the number of diagnosis codes in the denominator that were correctly coded based on the medical records submitted for the study.

The all-element accuracy rate denotes the percentage of dates of service with all data elements coded correctly among all validated dates of service from the electronic encounter data.

Table R.5—Encounter Data Accuracy Summary for IEHP

Note: Data element accuracy rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard. The all-element accuracy rates greater than 80 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

— Indicates that the error type analysis was not applicable to a given data element, or the denominator for the error rate was too small (i.e., less than 30) to report a valid rate and/or the numerator for the error rate was less than 11.

[1]This data element was calculated based on the results from the *Diagnosis Code, Procedure Code,* and *Procedure Code Modifier* data elements.

Key Data Element	Denominator	IEHP Accuracy Rate	Statewide Accuracy Rate	Main Error Type
Diagnosis Code	1,349	99.8%+	**99.5%+**	—
Procedure Code	968	98.2%+	**98.7%+**	—
Procedure Code Modifier	306	100.0%+	**99.7%+**	—
Rendering Provider Name	477	65.0%	**63.6%**	Incorrect name (95.2%)
All-Element Accuracy	478	42.9%	**45.2%**	—
All-Element Accuracy Excluding Rendering Provider Name[1]	478	61.3%	**69.1%**	—

Appendix S. Findings for Kaiser Permanente North (Kaiser NorCal)

Medical Record Procurement Status

Table S.1 shows the medical record procurement status (i.e., number of medical records submitted for either the sampled date of service or the second date of service) for Kaiser NorCal.

Table S.1—Medical Record Procurement Status for Kaiser NorCal

Note: Medical record procurement rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

Plan	Initial Sample Size	Number of Records Submitted	Percentage of Records Submitted
Kaiser NorCal	411	410	99.8%+
Statewide Total	**10,590**	**9,358**	**88.4%**

Table S.2 lists the reasons for missing medical records for Kaiser NorCal.

Table S.2—Reasons for Missing Medical Records for Kaiser NorCal

Note: Total may not equal 100 percent due to rounding.

Non-Submission Reason	Count	Percent
Member was a patient of the practice; however, no documentation was available for requested dates of service.	1	100.0%
Kaiser NorCal Total	**1**	**100.0%**

Table S.3 displays the number and percent of records with a second date of service submitted for Kaiser NorCal.

Table S.3—Medical Record Submission Status for Second Date of Service for Kaiser NorCal

Plan	Number of Records Submitted	Number of Records Submitted with Second Date of Service	Percent
Kaiser NorCal	410	348	84.9%
Statewide Total	**9,358**	**5,600**	**59.8%**

Encounter Data Completeness

Table S.4 displays the medical record omission and encounter data omission rates for Kaiser NorCal. Using the data element *Date of Service* as an example, the list below shows the specifications for the denominator and the numerator:

- Medical record omission rate: The denominator for the medical record omission rate is the number of dates of service identified in DHCS' electronic encounter data, and the numerator is the number of dates of service identified in DHCS' electronic encounter data that were not found in the medical records submitted for the study.
- Encounter data omission rate: The denominator for the encounter data omission rate is the number of dates of service identified in the medical records, and the numerator is the number of dates of service from the medical records that were not found in DHCS' electronic encounter data.

HSAG evaluated the medical record omission rate and the encounter data omission rate using the date of service selected by HSAG and an additional date of service selected by the provider, if one was available. For both rates, lower values indicate better performance.

Table S.4—Encounter Data Completeness Summary for Kaiser NorCal

Note: Omission rates of less than 10 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standards.

"S" indicates that the numerator for this indicator was less than 11; therefore, this report suppresses the rate to satisfy the Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy Rule's de-identification standard.

	Medical Record Omission			Encounter Data Omission		
Key Data Elements	**Denominator**	**Kaiser NorCal Rate**	**Statewide Rate**	**Denominator**	**Kaiser NorCal Rate**	**Statewide Rate**
Date of Service	643	2.2%+	**8.6%+**	713	11.8%	**3.7%+**
Diagnosis Code	1,747	2.2%+	**11.5%**	1,796	4.8%+	**2.1%+**
Procedure Code	1,043	6.4%+	**19.4%**	1,098	11.1%	**8.5%+**
Procedure Code Modifier	432	12.0%	**28.3%**	393	3.3%+	**5.0%+**
Rendering Provider Name	643	2.2%+	**9.1%+**	702	10.4%	**3.6%+**

Encounter Data Accuracy

Table S.5 displays the element accuracy rates for each key data element and the all-element accuracy rate for Kaiser NorCal. Encounter data accuracy was evaluated for dates of service that existed in both DHCS' electronic encounter data and the medical records and had values present in both data sources for the evaluated data element. Using the data element *Diagnosis Code* as an example, the list below shows the specifications for the denominator and the numerator:

- Denominator: The denominator for the accuracy rate is the number of diagnosis codes associated with dates of service that existed in both DHCS' electronic encounter data and the medical records. In addition, both data sources had values for the data element *Diagnosis Code*.
- Numerator: The numerator for the accuracy rate is the number of diagnosis codes in the denominator that were correctly coded based on the medical records submitted for the study.

The all-element accuracy rate denotes the percentage of dates of service with all data elements coded correctly among all validated dates of service from the electronic encounter data.

Table S.5—Encounter Data Accuracy Summary for Kaiser NorCal

Note: Data element accuracy rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard. The all-element accuracy rates greater than 80 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

— Indicates that the error type analysis was not applicable to a given data element, or the denominator for the error rate was too small (i.e., less than 30) to report a valid rate and/or the numerator for the error rate was less than 11.

[1]This data element was calculated based on the results from the *Diagnosis Code, Procedure Code,* and *Procedure Code Modifier* data elements.

Key Data Element	Denominator	Kaiser NorCal Accuracy Rate	Statewide Accuracy Rate	Main Error Type
Diagnosis Code	1,709	99.9%+	**99.5%+**	—
Procedure Code	976	99.0%+	**98.7%+**	—
Procedure Code Modifier	380	100.0%+	**99.7%+**	—
Rendering Provider Name	629	88.6%	**63.6%**	Incorrect name (100.0%)
All-Element Accuracy	629	79.5%	**45.2%**	—
All-Element Accuracy Excluding Rendering Provider Name[1]	629	90.1%+	**69.1%**	—

Appendix T. Findings for Kaiser Permanente South (Kaiser SoCal)

Medical Record Procurement Status

Table T.1 shows the medical record procurement status (i.e., number of medical records submitted for either the sampled date of service or the second date of service) for Kaiser SoCal.

Table T.1—Medical Record Procurement Status for Kaiser SoCal

Note: Medical record procurement rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

Plan	Initial Sample Size	Number of Records Submitted	Percentage of Records Submitted
Kaiser SoCal	411	410	99.8%+
Statewide Total	**10,590**	**9,358**	**88.4%**

Table T.2 lists the reasons for missing medical records for Kaiser SoCal.

Table T.2—Reasons for Missing Medical Records for Kaiser SoCal

Note: Total may not equal 100 percent due to rounding.

Non-Submission Reason	Count	Percent
Member was a patient of the practice; however, no documentation was available for requested dates of service.	1	100.0%
Kaiser SoCal Total	**1**	**100.0%**

Table T.3 displays the number and percent of records with a second date of service submitted for Kaiser SoCal.

Table T.3—Medical Record Submission Status for Second Date of Service for Kaiser SoCal

Plan	Number of Records Submitted	Number of Records Submitted with Second Date of Service	Percent
Kaiser SoCal	410	358	87.3%
Statewide Total	**9,358**	**5,600**	**59.8%**

Encounter Data Completeness

Table T.4 displays the medical record omission and encounter data omission rates for Kaiser SoCal. Using the data element *Date of Service* as an example, the list below shows the specifications for the denominator and the numerator:

- Medical record omission rate: The denominator for the medical record omission rate is the number of dates of service identified in DHCS' electronic encounter data, and the numerator is the number of dates of service identified in DHCS' electronic encounter data that were not found in the medical records submitted for the study.
- Encounter data omission rate: The denominator for the encounter data omission rate is the number of dates of service identified in the medical records, and the numerator is the number of dates of service from the medical records that were not found in DHCS' electronic encounter data.

HSAG evaluated the medical record omission rate and the encounter data omission rate using the date of service selected by HSAG and an additional date of service selected by the provider, if one was available. For both rates, lower values indicate better performance.

Table T.4—Encounter Data Completeness Summary for Kaiser SoCal

Note: Omission rates of less than 10 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standards.

"S" indicates that the numerator for this indicator was less than 11; therefore, this report suppresses the rate to satisfy the Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy Rule's de-identification standard.

	Medical Record Omission			Encounter Data Omission		
Key Data Elements	**Denominator**	**Kaiser SoCal Rate**	**Statewide Rate**	**Denominator**	**Kaiser SoCal Rate**	**Statewide Rate**
Date of Service	663	3.2%+	**8.6%+**	710	9.6%+	**3.7%+**
Diagnosis Code	1,742	4.6%+	**11.5%**	1,738	4.4%+	**2.1%+**
Procedure Code	1,246	7.6%+	**19.4%**	1,261	8.7%+	**8.5%+**
Procedure Code Modifier	246	8.9%+	**28.3%**	232	S+	**5.0%+**
Rendering Provider Name	663	3.6%+	**9.1%+**	699	8.6%+	**3.6%+**

Encounter Data Accuracy

Table T.5 displays the element accuracy rates for each key data element and the all-element accuracy rate for Kaiser SoCal. Encounter data accuracy was evaluated for dates of service that existed in both DHCS' electronic encounter data and the medical records and had values present in both data sources for the evaluated data element. Using the data element *Diagnosis Code* as an example, the list below shows the specifications for the denominator and the numerator:

- Denominator: The denominator for the accuracy rate is the number of diagnosis codes associated with dates of service that existed in both DHCS' electronic encounter data and the medical records. In addition, both data sources had values for the data element *Diagnosis Code*.
- Numerator: The numerator for the accuracy rate is the number of diagnosis codes in the denominator that were correctly coded based on the medical records submitted for the study.

The all-element accuracy rate denotes the percentage of dates of service with all data elements coded correctly among all validated dates of service from the electronic encounter data.

Table T.5—Encounter Data Accuracy Summary for Kaiser SoCal

Note: Data element accuracy rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard. The all-element accuracy rates greater than 80 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

— Indicates that the error type analysis was not applicable to a given data element, or the denominator for the error rate was too small (i.e., less than 30) to report a valid rate and/or the numerator for the error rate was less than 11.

[1]This data element was calculated based on the results from the *Diagnosis Code, Procedure Code,* and *Procedure Code Modifier* data elements.

Key Data Element	Denominator	Kaiser SoCal Accuracy Rate	Statewide Accuracy Rate	Main Error Type
Diagnosis Code	1,662	99.8%+	**99.5%+**	—
Procedure Code	1,151	99.0%+	**98.7%+**	—
Procedure Code Modifier	224	100.0%+	**99.7%+**	—
Rendering Provider Name	639	83.7%	**63.6%**	Incorrect name (100.0%)
All-Element Accuracy	642	73.4%	**45.2%**	—
All-Element Accuracy Excluding Rendering Provider Name[1]	642	86.3%+	**69.1%**	—

Appendix U. Findings for Kern Health Systems (KHS)

Medical Record Procurement Status

Table U.1 shows the medical record procurement status (i.e., number of medical records submitted for either the sampled date of service or the second date of service) for KHS.

Table U.1—Medical Record Procurement Status for KHS

Note: Medical record procurement rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

Plan	Initial Sample Size	Number of Records Submitted	Percentage of Records Submitted
KHS	411	411	100.0%+
Statewide Total	**10,590**	**9,358**	**88.4%**

Table U.2 displays the number and percent of records with a second date of service submitted for KHS.

Table U.2—Medical Record Submission Status for Second Date of Service for KHS

Plan	Number of Records Submitted	Number of Records Submitted with Second Date of Service	Percent
KHS	411	254	61.8%
Statewide Total	**9,358**	**5,600**	**59.8%**

Encounter Data Completeness

Table U.3 displays the medical record omission and encounter data omission rates for KHS. Using the data element *Date of Service* as an example, the list below shows the specifications for the denominator and the numerator:

- Medical record omission rate: The denominator for the medical record omission rate is the number of dates of service identified in DHCS' electronic encounter data, and the numerator is the number of dates of service identified in DHCS' electronic encounter data that were not found in the medical records submitted for the study.
- Encounter data omission rate: The denominator for the encounter data omission rate is the number of dates of service identified in the medical records, and the numerator is the number of dates of service from the medical records that were not found in DHCS' electronic encounter data.

HSAG evaluated the medical record omission rate and the encounter data omission rate using the date of service selected by HSAG and an additional date of service selected by the provider, if one was available. For both rates, lower values indicate better performance.

Table U.3—Encounter Data Completeness Summary for KHS

Note: Omission rates of less than 10 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standards.

"S" indicates that the numerator for this indicator was less than 11; therefore, this report suppresses the rate to satisfy the Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy Rule's de-identification standard.

	Medical Record Omission			Encounter Data Omission		
Key Data Elements	**Denominator**	**KHS Rate**	**Statewide Rate**	**Denominator**	**KHS Rate**	**Statewide Rate**
Date of Service	651	S+	**8.6%+**	650	S+	**3.7%+**
Diagnosis Code	1,532	8.3%+	**11.5%**	1,417	0.8%+	**2.1%+**
Procedure Code	1,165	12.5%	**19.4%**	1,077	5.4%+	**8.5%+**
Procedure Code Modifier	614	28.7%	**28.3%**	453	3.3%+	**5.0%+**
Rendering Provider Name	651	S+	**9.1%+**	646	S+	**3.6%+**

Encounter Data Accuracy

Table U.4 displays the element accuracy rates for each key data element and the all-element accuracy rate for KHS. Encounter data accuracy was evaluated for dates of service that existed in both DHCS' electronic encounter data and the medical records and had values present in both data sources for the evaluated data element. Using the data element *Diagnosis Code* as an example, the list below shows the specifications for the denominator and the numerator:

- Denominator: The denominator for the accuracy rate is the number of diagnosis codes associated with dates of service that existed in both DHCS' electronic encounter data and the medical records. In addition, both data sources had values for the data element *Diagnosis Code*.
- Numerator: The numerator for the accuracy rate is the number of diagnosis codes in the denominator that were correctly coded based on the medical records submitted for the study.

The all-element accuracy rate denotes the percentage of dates of service with all data elements coded correctly among all validated dates of service from the electronic encounter data.

Table U.4—Encounter Data Accuracy Summary for KHS

Note: Data element accuracy rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard. The all-element accuracy rates greater than 80 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

— Indicates that the error type analysis was not applicable to a given data element, or the denominator for the error rate was too small (i.e., less than 30) to report a valid rate and/or the numerator for the error rate was less than 11.

[1]This data element was calculated based on the results from the *Diagnosis Code, Procedure Code,* and *Procedure Code Modifier* data elements.

Key Data Element	Denominator	KHS Accuracy Rate	Statewide Accuracy Rate	Main Error Type
Diagnosis Code	1,405	99.5%+	**99.5%+**	—
Procedure Code	1,019	99.2%+	**98.7%+**	—
Procedure Code Modifier	438	99.5%+	**99.7%+**	—

Key Data Element	Denominator	KHS Accuracy Rate	Statewide Accuracy Rate	Main Error Type
Rendering Provider Name	644	78.1%	**63.6%**	Incorrect name (100.0%)
All-Element Accuracy	648	56.5%	**45.2%**	—
All-Element Accuracy Excluding Rendering Provider Name[1]	648	71.5%	**69.1%**	—

Appendix V. Findings for L.A. Care Health Plan (L.A. Care)

Medical Record Procurement Status

Table V.1 shows the medical record procurement status (i.e., number of medical records submitted for either the sampled date of service or the second date of service) for L.A. Care.

Table V.1—Medical Record Procurement Status for L.A. Care

Note: Medical record procurement rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

Plan	Initial Sample Size	Number of Records Submitted	Percentage of Records Submitted
L.A. Care	411	361	87.8%
Statewide Total	**10,590**	**9,358**	**88.4%**

Table V.2 lists the reasons for missing medical records for L.A. Care.

Table V.2—Reasons for Missing Medical Records for L.A. Care

Note: Total may not equal 100 percent due to rounding.

Non-Submission Reason	Count	Percent
Non-responsive provider or provider did not respond in a timely manner.	38	76.0%
Member was a patient of the practice; however, no documentation was available for requested dates of service.	6	12.0%
Member was not a patient of the practice.	3	6.0%
Medical records were not located at the facility.	1	2.0%
Other.	1	2.0%
Provider refused to release medical records.	1	2.0%
L.A. Care Total	**50**	**100.0%**

Table V.3 displays the number and percent of records with a second date of service submitted for L.A. Care.

Table V.3—Medical Record Submission Status for Second Date of Service for L.A. Care

Plan	Number of Records Submitted	Number of Records Submitted with Second Date of Service	Percent
L.A. Care	361	216	59.8%
Statewide Total	**9,358**	**5,600**	**59.8%**

Encounter Data Completeness

Table V.4 displays the medical record omission and encounter data omission rates for L.A. Care. Using the data element *Date of Service* as an example, the list below shows the specifications for the denominator and the numerator:

- Medical record omission rate: The denominator for the medical record omission rate is the number of dates of service identified in DHCS' electronic encounter data, and the numerator is the number of dates of service identified in DHCS' electronic encounter data that were not found in the medical records submitted for the study.
- Encounter data omission rate: The denominator for the encounter data omission rate is the number of dates of service identified in the medical records, and the numerator is the number of dates of service from the medical records that were not found in DHCS' electronic encounter data.

HSAG evaluated the medical record omission rate and the encounter data omission rate using the date of service selected by HSAG and an additional date of service selected by the provider, if one was available. For both rates, lower values indicate better performance.

Table V.4—Encounter Data Completeness Summary for L.A. Care

Note: Omission rates of less than 10 percent are shaded in gray and denoted with a cross ($^{+}$) to show that they met the EDV study standards.

"S" indicates that the numerator for this indicator was less than 11; therefore, this report suppresses the rate to satisfy the Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy Rule's de-identification standard.

	Medical Record Omission			Encounter Data Omission		
Key Data Elements	**Denominator**	**L.A. Care Rate**	**Statewide Rate**	**Denominator**	**L.A. Care Rate**	**Statewide Rate**
Date of Service	559	12.2%	**8.6%+**	513	4.3%+	**3.7%+**
Diagnosis Code	1,647	15.0%	**11.5%**	1,427	1.9%+	**2.1%+**
Procedure Code	1,370	21.6%	**19.4%**	1,162	7.6%+	**8.5%+**
Procedure Code Modifier	349	37.8%	**28.3%**	227	S+	**5.0%+**
Rendering Provider Name	559	13.2%	**9.1%+**	506	4.2%+	**3.6%+**

Encounter Data Accuracy

Table V.5 displays the element accuracy rates for each key data element and the all-element accuracy rate for L.A. Care. Encounter data accuracy was evaluated for dates of service that existed in both DHCS' electronic encounter data and the medical records and had values present in both data sources for the evaluated data element. Using the data element *Diagnosis Code* as an example, the list below shows the specifications for the denominator and the numerator:

- Denominator: The denominator for the accuracy rate is the number of diagnosis codes associated with dates of service that existed in both DHCS' electronic encounter data and the medical records. In addition, both data sources had values for the data element *Diagnosis Code*.
- Numerator: The numerator for the accuracy rate is the number of diagnosis codes in the denominator that were correctly coded based on the medical records submitted for the study.

The all-element accuracy rate denotes the percentage of dates of service with all data elements coded correctly among all validated dates of service from the electronic encounter data.

Table V.5—Encounter Data Accuracy Summary for L.A. Care

Note: Data element accuracy rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard. The all-element accuracy rates greater than 80 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

— Indicates that the error type analysis was not applicable to a given data element, or the denominator for the error rate was too small (i.e., less than 30) to report a valid rate and/or the numerator for the error rate was less than 11.

[1]This data element was calculated based on the results from the *Diagnosis Code, Procedure Code,* and *Procedure Code Modifier* data elements.

Key Data Element	Denominator	L.A. Care Accuracy Rate	Statewide Accuracy Rate	Main Error Type
Diagnosis Code	1,400	99.6%+	**99.5%+**	—
Procedure Code	1,074	98.7%+	**98.7%+**	—
Procedure Code Modifier	217	100.0%+	**99.7%+**	—
Rendering Provider Name	485	68.7%	**63.6%**	Incorrect name (92.1%); Illegible name in medical records (7.9%)
All-Element Accuracy	491	51.7%	**45.2%**	—
All-Element Accuracy Excluding Rendering Provider Name[1]	491	72.9%	**69.1%**	—

Appendix W. Findings for Molina Healthcare of California (Molina)

Medical Record Procurement Status

Table W.1 shows the medical record procurement status (i.e., number of medical records submitted for either the sampled date of service or the second date of service) for Molina.

Table W.1—Medical Record Procurement Status for Molina

Note: Medical record procurement rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

Plan	Initial Sample Size	Number of Records Submitted	Percentage of Records Submitted
Molina	411	395	96.1%+
Statewide Total	**10,590**	**9,358**	**88.4%**

Table W.2 lists the reasons for missing medical records for Molina.

Table W.2—Reasons for Missing Medical Records for Molina

Note: Total may not equal 100 percent due to rounding.

Non-Submission Reason	Count	Percent
Non-responsive provider or provider did not respond in a timely manner.	16	100.0%
Molina Total	**16**	**100.0%**

Table W.3 displays the number and percent of records with a second date of service submitted for Molina.

Table W.3—Medical Record Submission Status for Second Date of Service for Molina

Plan	Number of Records Submitted	Number of Records Submitted with Second Date of Service	Percent
Molina	395	249	63.0%
Statewide Total	**9,358**	**5,600**	**59.8%**

Encounter Data Completeness

Table W.4 displays the medical record omission and encounter data omission rates for Molina. Using the data element *Date of Service* as an example, the list below shows the specifications for the denominator and the numerator:

- Medical record omission rate: The denominator for the medical record omission rate is the number of dates of service identified in DHCS' electronic encounter data, and the numerator is the number of dates of service identified in DHCS' electronic encounter data that were not found in the medical records submitted for the study.
- Encounter data omission rate: The denominator for the encounter data omission rate is the number of dates of service identified in the medical records, and the numerator is the number of dates of service from the medical records that were not found in DHCS' electronic encounter data.

HSAG evaluated the medical record omission rate and the encounter data omission rate using the date of service selected by HSAG and an additional date of service selected by the provider, if one was available. For both rates, lower values indicate better performance.

Table W.4—Encounter Data Completeness Summary for Molina

Note: Omission rates of less than 10 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standards.

"S" indicates that the numerator for this indicator was less than 11; therefore, this report suppresses the rate to satisfy the Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy Rule's de-identification standard.

	Medical Record Omission			Encounter Data Omission		
Key Data Elements	**Denominator**	**Molina Rate**	**Statewide Rate**	**Denominator**	**Molina Rate**	**Statewide Rate**
Date of Service	545	3.9%+	**8.6%+**	534	S+	**3.7%+**
Diagnosis Code	1,727	7.3%+	**11.5%**	1,613	0.7%+	**2.1%+**
Procedure Code	1,436	13.2%	**19.4%**	1,305	4.5%+	**8.5%+**
Procedure Code Modifier	512	18.8%	**28.3%**	443	6.1%+	**5.0%+**
Rendering Provider Name	545	4.4%+	**9.1%+**	531	S+	**3.6%+**

Encounter Data Accuracy

Table W.5 displays the element accuracy rates for each key data element and the all-element accuracy rate for Molina. Encounter data accuracy was evaluated for dates of service that existed in both DHCS' electronic encounter data and the medical records and had values present in both data sources for the evaluated data element. Using the data element *Diagnosis Code* as an example, the list below shows the specifications for the denominator and the numerator:

- Denominator: The denominator for the accuracy rate is the number of diagnosis codes associated with dates of service that existed in both DHCS' electronic encounter data and the medical records. In addition, both data sources had values for the data element *Diagnosis Code*.
- Numerator: The numerator for the accuracy rate is the number of diagnosis codes in the denominator that were correctly coded based on the medical records submitted for the study.

The all-element accuracy rate denotes the percentage of dates of service with all data elements coded correctly among all validated dates of service from the electronic encounter data.

Table W.5—Encounter Data Accuracy Summary for Molina

Note: Data element accuracy rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard. The all-element accuracy rates greater than 80 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

— Indicates that the error type analysis was not applicable to a given data element, or the denominator for the error rate was too small (i.e., less than 30) to report a valid rate and/or the numerator for the error rate was less than 11.

[1]This data element was calculated based on the results from the *Diagnosis Code, Procedure Code,* and *Procedure Code Modifier* data elements.

Key Data Element	Denominator	Molina Accuracy Rate	Statewide Accuracy Rate	Main Error Type
Diagnosis Code	1,601	99.0%+	**99.5%+**	—
Procedure Code	1,246	99.4%+	**98.7%+**	—
Procedure Code Modifier	416	100.0%+	**99.7%+**	—

Key Data Element	Denominator	Molina Accuracy Rate	Statewide Accuracy Rate	Main Error Type
Rendering Provider Name	521	65.1%	**63.6%**	Incorrect name (97.3%)
All-Element Accuracy	524	44.1%	**45.2%**	—
All-Element Accuracy Excluding Rendering Provider Name[1]	524	69.3%	**69.1%**	—

Appendix X. Findings for Partnership HealthPlan of California (Partnership)

Medical Record Procurement Status

Table X.1 shows the medical record procurement status (i.e., number of medical records submitted for either the sampled date of service or the second date of service) for Partnership.

Table X.1—Medical Record Procurement Status for Partnership

Note: Medical record procurement rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

Plan	Initial Sample Size	Number of Records Submitted	Percentage of Records Submitted
Partnership	411	397	96.6%+
Statewide Total	**10,590**	**9,358**	**88.4%**

Table X.2 lists the reasons for missing medical records for Partnership.

Table X.2—Reasons for Missing Medical Records for Partnership

Note: Total may not equal 100 percent due to rounding.

Non-Submission Reason	Count	Percent
Other.	11	78.6%
Member was a patient of the practice; however, no documentation was available for requested dates of service.	1	7.1%
Closed facility.	1	7.1%
Medical records were not located at the facility.	1	7.1%
Partnership Total	**14**	**100.0%**

Table X.3 displays the number and percent of records with a second date of service submitted for Partnership.

Table X.3—Medical Record Submission Status for Second Date of Service for Partnership

Plan	Number of Records Submitted	Number of Records Submitted with Second Date of Service	Percent
Partnership	397	249	62.7%
Statewide Total	**9,358**	**5,600**	**59.8%**

Encounter Data Completeness

Table X.4 displays the medical record omission and encounter data omission rates for Partnership. Using the data element *Date of Service* as an example, the list below shows the specifications for the denominator and the numerator:

- Medical record omission rate: The denominator for the medical record omission rate is the number of dates of service identified in DHCS' electronic encounter data, and the numerator is the number of dates of service identified in DHCS' electronic encounter data that were not found in the medical records submitted for the study.
- Encounter data omission rate: The denominator for the encounter data omission rate is the number of dates of service identified in the medical records, and the numerator is the number of dates of service from the medical records that were not found in DHCS' electronic encounter data.

HSAG evaluated the medical record omission rate and the encounter data omission rate using the date of service selected by HSAG and an additional date of service selected by the provider, if one was available. For both rates, lower values indicate better performance.

Table X.4—Encounter Data Completeness Summary for Partnership

Note: Omission rates of less than 10 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standards.

"S" indicates that the numerator for this indicator was less than 11; therefore, this report suppresses the rate to satisfy the Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy Rule's de-identification standard.

	Medical Record Omission			Encounter Data Omission		
Key Data Elements	**Denominator**	**Partnership Rate**	**Statewide Rate**	**Denominator**	**Partnership Rate**	**Statewide Rate**
Date of Service	622	3.9%+	**8.6%+**	611	2.1%+	**3.7%+**
Diagnosis Code	1,570	6.8%+	**11.5%**	1,480	1.1%+	**2.1%+**
Procedure Code	989	11.9%	**19.4%**	980	11.1%	**8.5%+**
Procedure Code Modifier	469	17.9%	**28.3%**	394	S+	**5.0%+**
Rendering Provider Name	622	4.2%+	**9.1%+**	608	2.0%+	**3.6%+**

Encounter Data Accuracy

Table X.5 displays the element accuracy rates for each key data element and the all-element accuracy rate for Partnership. Encounter data accuracy was evaluated for dates of service that existed in both DHCS' electronic encounter data and the medical records and had values present in both data sources for the evaluated data element. Using the data element *Diagnosis Code* as an example, the list below shows the specifications for the denominator and the numerator:

- Denominator: The denominator for the accuracy rate is the number of diagnosis codes associated with dates of service that existed in both DHCS' electronic encounter data and the medical records. In addition, both data sources had values for the data element *Diagnosis Code*.
- Numerator: The numerator for the accuracy rate is the number of diagnosis codes in the denominator that were correctly coded based on the medical records submitted for the study.

The all-element accuracy rate denotes the percentage of dates of service with all data elements coded correctly among all validated dates of service from the electronic encounter data.

Table X.5—Encounter Data Accuracy Summary for Partnership

Note: Data element accuracy rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard. The all-element accuracy rates greater than 80 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

— Indicates that the error type analysis was not applicable to a given data element, or the denominator for the error rate was too small (i.e., less than 30) to report a valid rate and/or the numerator for the error rate was less than 11.

[1]This data element was calculated based on the results from the *Diagnosis Code, Procedure Code,* and *Procedure Code Modifier* data elements.

Key Data Element	Denominator	Partnership Accuracy Rate	Statewide Accuracy Rate	Main Error Type
Diagnosis Code	1,464	99.5%+	**99.5%+**	—
Procedure Code	871	99.4%+	**98.7%+**	—
Procedure Code Modifier	385	100.0%+	**99.7%+**	—
Rendering Provider Name	596	68.6%	**63.6%**	Incorrect name (98.9%)
All-Element Accuracy	598	53.5%	**45.2%**	—
All-Element Accuracy Excluding Rendering Provider Name[1]	598	76.4%	**69.1%**	—

Appendix Y. Findings for San Francisco Health Plan (SFHP)

Medical Record Procurement Status

Table Y.1 shows the medical record procurement status (i.e., number of medical records submitted for either the sampled date of service or the second date of service) for SFHP.

Table Y.1—Medical Record Procurement Status for SFHP

Note: Medical record procurement rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

Plan	Initial Sample Size	Number of Records Submitted	Percentage of Records Submitted
SFHP	411	349	84.9%
Statewide Total	**10,590**	**9,358**	**88.4%**

Table Y.2 lists the reasons for missing medical records for SFHP.

Table Y.2—Reasons for Missing Medical Records for SFHP

Note: Total may not equal 100 percent due to rounding.

Non-Submission Reason	Count	Percent
Non-responsive provider or provider did not respond in a timely manner.	49	79.0%
Medical records were not located at the facility.	10	16.1%
Member was a patient of the practice; however, no documentation was available for requested dates of service.	2	3.2%
Other.	1	1.6%
SFHP Total	**62**	**100.0%**

Table Y.3 displays the number and percent of records with a second date of service submitted for SFHP.

Table Y.3—Medical Record Submission Status for Second Date of Service for SFHP

Plan	Number of Records Submitted	Number of Records Submitted with Second Date of Service	Percent
SFHP	349	211	60.5%
Statewide Total	**9,358**	**5,600**	**59.8%**

Encounter Data Completeness

Table Y.4 displays the medical record omission and encounter data omission rates for SFHP. Using the data element *Date of Service* as an example, the list below shows the specifications for the denominator and the numerator:

- Medical record omission rate: The denominator for the medical record omission rate is the number of dates of service identified in DHCS' electronic encounter data, and the numerator is the number of dates of service identified in DHCS' electronic encounter data that were not found in the medical records submitted for the study.
- Encounter data omission rate: The denominator for the encounter data omission rate is the number of dates of service identified in the medical records, and the numerator is the number of dates of service from the medical records that were not found in DHCS' electronic encounter data.

HSAG evaluated the medical record omission rate and the encounter data omission rate using the date of service selected by HSAG and an additional date of service selected by the provider, if one was available. For both rates, lower values indicate better performance.

Table Y.4—Encounter Data Completeness Summary for SFHP

Note: Omission rates of less than 10 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standards.

"S" indicates that the numerator for this indicator was less than 11; therefore, this report suppresses the rate to satisfy the Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy Rule's de-identification standard.

	Medical Record Omission			Encounter Data Omission		
Key Data Elements	**Denominator**	**SFHP Rate**	**Statewide Rate**	**Denominator**	**SFHP Rate**	**Statewide Rate**
Date of Service	579	15.9%	**8.6%⁺**	505	3.6%⁺	**3.7%⁺**
Diagnosis Code	1,603	16.0%	**11.5%**	1,377	2.3%⁺	**2.1%⁺**
Procedure Code	1,169	29.3%	**19.4%**	869	4.8%⁺	**8.5%⁺**
Procedure Code Modifier	560	39.1%	**28.3%**	341	S⁺	**5.0%⁺**
Rendering Provider Name	579	16.2%	**9.1%⁺**	503	3.6%⁺	**3.6%⁺**

Encounter Data Accuracy

Table Y.5 displays the element accuracy rates for each key data element and the all-element accuracy rate for SFHP. Encounter data accuracy was evaluated for dates of service that existed in both DHCS' electronic encounter data and the medical records and had values present in both data sources for the evaluated data element. Using the data element *Diagnosis Code* as an example, the list below shows the specifications for the denominator and the numerator:

- Denominator: The denominator for the accuracy rate is the number of diagnosis codes associated with dates of service that existed in both DHCS' electronic encounter data and the medical records. In addition, both data sources had values for the data element *Diagnosis Code*.
- Numerator: The numerator for the accuracy rate is the number of diagnosis codes in the denominator that were correctly coded based on the medical records submitted for the study.

The all-element accuracy rate denotes the percentage of dates of service with all data elements coded correctly among all validated dates of service from the electronic encounter data.

Table Y.5—Encounter Data Accuracy Summary for SFHP

Note: Data element accuracy rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard. The all-element accuracy rates greater than 80 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

— Indicates that the error type analysis was not applicable to a given data element, or the denominator for the error rate was too small (i.e., less than 30) to report a valid rate and/or the numerator for the error rate was less than 11.

[1]This data element was calculated based on the results from the *Diagnosis Code, Procedure Code,* and *Procedure Code Modifier* data elements.

Key Data Element	Denominator	SFHP Accuracy Rate	Statewide Accuracy Rate	Main Error Type
Diagnosis Code	1,346	100.0%+	**99.5%+**	—
Procedure Code	827	98.7%+	**98.7%+**	—
Procedure Code Modifier	341	100.0%+	**99.7%+**	—
Rendering Provider Name	485	86.2%	**63.6%**	Incorrect name (97.0%)
All-Element Accuracy	487	71.0%	**45.2%**	—
All-Element Accuracy Excluding Rendering Provider Name[1]	487	79.7%	**69.1%**	—

Appendix Z. Findings for Santa Clara Family Health Plan (SCFHP)

Medical Record Procurement Status

Table Z.1 shows the medical record procurement status (i.e., number of medical records submitted for either the sampled date of service or the second date of service) for SCFHP.

Table Z.1—Medical Record Procurement Status for SCFHP

Note: Medical record procurement rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

Plan	Initial Sample Size	Number of Records Submitted	Percentage of Records Submitted
SCFHP	411	394	95.9%+
Statewide Total	**10,590**	**9,358**	**88.4%**

Table Z.2 lists the reasons for missing medical records for SCFHP.

Table Z.2—Reasons for Missing Medical Records for SCFHP

Note: Total may not equal 100 percent due to rounding.

Non-Submission Reason	Count	Percent
Member was a patient of the practice; however, no documentation was available for requested dates of service.	8	47.1%
Non-responsive provider or provider did not respond in a timely manner.	6	35.3%
Medical records were not located at the facility.	2	11.8%
Member was not a patient of the practice.	1	5.9%
SCFHP Total	**17**	**100.0%**

Table Z.3 displays the number and percent of records with a second date of service submitted for SCFHP.

Table Z.3—Medical Record Submission Status for Second Date of Service for SCFHP

Plan	Number of Records Submitted	Number of Records Submitted with Second Date of Service	Percent
SCFHP	394	252	64.0%
Statewide Total	**9,358**	**5,600**	**59.8%**

Encounter Data Completeness

Table Z.4 displays the medical record omission and encounter data omission rates for SCFHP. Using the data element *Date of Service* as an example, the list below shows the specifications for the denominator and the numerator:

- Medical record omission rate: The denominator for the medical record omission rate is the number of dates of service identified in DHCS' electronic encounter data, and the numerator is the number of dates of service identified in DHCS' electronic encounter data that were not found in the medical records submitted for the study.
- Encounter data omission rate: The denominator for the encounter data omission rate is the number of dates of service identified in the medical records, and the numerator is the number of dates of service from the medical records that were not found in DHCS' electronic encounter data.

HSAG evaluated the medical record omission rate and the encounter data omission rate using the date of service selected by HSAG and an additional date of service selected by the provider, if one was available. For both rates, lower values indicate better performance.

Table Z.4—Encounter Data Completeness Summary for SCFHP

Note: Omission rates of less than 10 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standards.

"S" indicates that the numerator for this indicator was less than 11; therefore, this report suppresses the rate to satisfy the Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy Rule's de-identification standard.

	Medical Record Omission			Encounter Data Omission		
Key Data Elements	**Denominator**	**SCFHP Rate**	**Statewide Rate**	**Denominator**	**SCFHP Rate**	**Statewide Rate**
Date of Service	608	5.3%+	**8.6%+**	611	5.7%+	**3.7%+**
Diagnosis Code	1,574	7.4%+	**11.5%**	1,504	3.1%+	**2.1%+**
Procedure Code	1,158	19.9%	**19.4%**	1,079	14.0%	**8.5%+**
Procedure Code Modifier	611	34.4%	**28.3%**	416	3.6%+	**5.0%+**
Rendering Provider Name	608	6.3%+	**9.1%+**	603	5.5%+	**3.6%+**

Encounter Data Accuracy

Table Z.5 displays the element accuracy rates for each key data element and the all-element accuracy rate for SCFHP. Encounter data accuracy was evaluated for dates of service that existed in both DHCS' electronic encounter data and the medical records and had values present in both data sources for the evaluated data element. Using the data element *Diagnosis Code* as an example, the list below shows the specifications for the denominator and the numerator:

- Denominator: The denominator for the accuracy rate is the number of diagnosis codes associated with dates of service that existed in both DHCS' electronic encounter data and the medical records. In addition, both data sources had values for the data element *Diagnosis Code*.
- Numerator: The numerator for the accuracy rate is the number of diagnosis codes in the denominator that were correctly coded based on the medical records submitted for the study.

The all-element accuracy rate denotes the percentage of dates of service with all data elements coded correctly among all validated dates of service from the electronic encounter data.

Table Z.5—Encounter Data Accuracy Summary for SCFHP

Note: Data element accuracy rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard. The all-element accuracy rates greater than 80 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

— Indicates that the error type analysis was not applicable to a given data element, or the denominator for the error rate was too small (i.e., less than 30) to report a valid rate and/or the numerator for the error rate was less than 11.

[1]This data element was calculated based on the results from the *Diagnosis Code, Procedure Code,* and *Procedure Code Modifier* data elements.

Key Data Element	Denominator	SCFHP Accuracy Rate	Statewide Accuracy Rate	Main Error Type
Diagnosis Code	1,458	99.5%+	**99.5%+**	—
Procedure Code	928	98.8%+	**98.7%+**	—
Procedure Code Modifier	401	99.3%+	**99.7%+**	—
Rendering Provider Name	570	80.4%	**63.6%**	Incorrect name (93.8%)
All-Element Accuracy	576	56.4%	**45.2%**	—
All-Element Accuracy Excluding Rendering Provider Name[1]	576	69.6%	**69.1%**	—

Appendix AA. Findings for SCAN Health Plan (SCAN)

Medical Record Procurement Status

Table AA.1 shows the medical record procurement status (i.e., number of medical records submitted for either the sampled date of service or the second date of service) for SCAN.

Table AA.1—Medical Record Procurement Status for SCAN

Note: Medical record procurement rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

Plan	Initial Sample Size	Number of Records Submitted	Percentage of Records Submitted
SCAN	411	326	79.3%
Statewide Total	**10,590**	**9,358**	**88.4%**

Table AA.2 lists the reasons for missing medical records for SCAN.

Table AA.2—Reasons for Missing Medical Records for SCAN

Note: Total may not equal 100 percent due to rounding.

Non-Submission Reason	Count	Percent
Member was a patient of the practice; however, no documentation was available for requested dates of service.	70	82.4%
Medical records were not located at the facility.	10	11.8%
Member was not a patient of the practice.	5	5.9%
SCAN Total	**85**	**100.0%**

Table AA.3 displays the number and percent of records with a second date of service submitted for SCAN.

Table AA.3—Medical Record Submission Status for Second Date of Service for SCAN

Plan	Number of Records Submitted	Number of Records Submitted with Second Date of Service	Percent
SCAN	326	165	50.6%
Statewide Total	**9,358**	**5,600**	**59.8%**

Encounter Data Completeness

Table AA.4 displays the medical record omission and encounter data omission rates for SCAN. Using the data element *Date of Service* as an example, the list below shows the specifications for the denominator and the numerator:

- Medical record omission rate: The denominator for the medical record omission rate is the number of dates of service identified in DHCS' electronic encounter data, and the numerator is the number of dates of service identified in DHCS' electronic encounter data that were not found in the medical records submitted for the study.
- Encounter data omission rate: The denominator for the encounter data omission rate is the number of dates of service identified in the medical records, and the numerator is the number of dates of service from the medical records that were not found in DHCS' electronic encounter data.

HSAG evaluated the medical record omission rate and the encounter data omission rate using the date of service selected by HSAG and an additional date of service selected by the provider, if one was available. For both rates, lower values indicate better performance.

Table AA.4—Encounter Data Completeness Summary for SCAN

Note: Omission rates of less than 10 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standards.

"S" indicates that the numerator for this indicator was less than 11; therefore, this report suppresses the rate to satisfy the Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy Rule's de-identification standard.

	Medical Record Omission			Encounter Data Omission		
Key Data Elements	**Denominator**	**SCAN Rate**	**Statewide Rate**	**Denominator**	**SCAN Rate**	**Statewide Rate**
Date of Service	551	16.7%	**8.6%+**	466	S+	**3.7%+**
Diagnosis Code	2,218	16.8%	**11.5%**	1,859	0.7%+	**2.1%+**
Procedure Code	955	27.1%	**19.4%**	711	2.1%+	**8.5%+**
Procedure Code Modifier	210	38.1%	**28.3%**	132	S+	**5.0%+**
Rendering Provider Name	551	17.2%	**9.1%+**	463	S+	**3.6%+**

Encounter Data Accuracy

Table AA.5 displays the element accuracy rates for each key data element and the all-element accuracy rate for SCAN. Encounter data accuracy was evaluated for dates of service that existed in both DHCS' electronic encounter data and the medical records and had values present in both data sources for the evaluated data element. Using the data element *Diagnosis Code* as an example, the list below shows the specifications for the denominator and the numerator:

- Denominator: The denominator for the accuracy rate is the number of diagnosis codes associated with dates of service that existed in both DHCS' electronic encounter data and the medical records. In addition, both data sources had values for the data element *Diagnosis Code*.
- Numerator: The numerator for the accuracy rate is the number of diagnosis codes in the denominator that were correctly coded based on the medical records submitted for the study.

The all-element accuracy rate denotes the percentage of dates of service with all data elements coded correctly among all validated dates of service from the electronic encounter data.

Table AA.5—Encounter Data Accuracy Summary for SCAN

Note: Data element accuracy rates greater than 90 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard. The all-element accuracy rates greater than 80 percent are shaded in gray and denoted with a cross (+) to show that they met the EDV study standard.

— Indicates that the error type analysis was not applicable to a given data element, or the denominator for the error rate was too small (i.e., less than 30) to report a valid rate and/or the numerator for the error rate was less than 11.

[1]This data element was calculated based on the results from the *Diagnosis Code, Procedure Code,* and *Procedure Code Modifier* data elements.

Key Data Element	Denominator	SCAN Accuracy Rate	Statewide Accuracy Rate	Main Error Type
Diagnosis Code	1,846	99.7%+	**99.5%+**	—
Procedure Code	696	99.1%+	**98.7%+**	—
Procedure Code Modifier	130	100.0%+	**99.7%+**	—
Rendering Provider Name	456	79.8%	**63.6%**	Incorrect name (93.5%)
All-Element Accuracy	459	61.2%	**45.2%**	—
All-Element Accuracy Excluding Rendering Provider Name[1]	459	75.4%	**69.1%**	—