



Maryland
DEPARTMENT OF HEALTH



**Maryland HealthChoice Program
Encounter Data Validation Report
Measurement Year 2024
Submitted February 2026**

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Maryland HealthChoice Program

Measurement Year 2024 Encounter Data Validation Report

Introduction

Background

The Maryland Department of Health (MDH) is responsible for evaluating the quality of care provided to eligible enrollees by contracted managed care organizations (MCOs) through the Maryland Medicaid Managed Care Program, known as HealthChoice. HealthChoice operates under a Centers for Medicare & Medicaid Services (CMS) 1115 waiver of the Social Security Act and Code of Maryland Regulations (COMAR) to serve Marylanders on Medicaid. Guiding principles for HealthChoice's operations are to provide quality healthcare that is equitable, patient-focused, prevention-oriented, coordinated, accessible, and cost-effective.

Federal regulations require MDH to contract with an external quality review organization (EQRO) to provide annual, independent reviews for assessing quality, access, and timeliness of care. This independent review ensures services provided to enrollees meet the standards governing the HealthChoice program in the Code of Federal Regulations (CFR) and COMAR. MDH contracts with Qlarant to meet federal regulations; evaluate quality, access, and timeliness of care; and validate encounter data.

Purpose

External quality review (EQR) activities are guided by Medicaid Managed Care provisions of the Balanced Budget Act of 1997, which was informed by direction from the U.S. Department of Health and Human Services. Early iterations served as guidelines to develop protocols for conducting EQR activities before CMS began developing a series of tools to help state Medicaid agencies collect, validate, and utilize encounter data for managed care program oversight in 1995. Encounter data identifies when a provider rendered a specific service under a managed care delivery system. States rely on valid and reliable encounter data submitted by MCOs to make key decisions, establish goals, assess and improve quality of care, monitor program integrity, and determine capitation rates.

CMS strongly encourages states to contract with EQROs to conduct encounter data validation (EDV) to ensure the overall validity and reliability of its encounter data. Collecting complete and accurate encounter data is critical in evolving payment methodologies and value-based payment elements. Qlarant reviews aggregate encounters to determine the accuracy of the data when compared to medical record reviews and the resolution of any outliers identified. Validation of encounter data provides MDH with a level of confidence in the completeness, accuracy, validity, and reliability of encounter data submitted by the MCOs.

This report describes findings from the measurement year (MY) 2024's EDV activities. No MCOs were exempt from this task. The following MCOs are contracted to provide services and are assessed in this report:

- Aetna Better Health of Maryland (ABH)
- CareFirst BlueCross BlueShield Community Health Plan (CFCHP)
- Jai Medical Systems, Inc. (JMS)
- Kaiser Permanente of the Mid-Atlantic States, Inc. (KPMAS)
- Maryland Physicians Care (MPC)
- MedStar Family Choice, Inc. (MSFC)
- Priority Partners (PPMCO)
- UnitedHealthcare Community Plan (UHC)
- Wellpoint Maryland (WPM)

Methodology

Description of Data Obtained. Qlarant obtained the following data to complete the EDV study:

- Electronic encounter data submitted by the MCOs
- Information System Capabilities Assessment (ISCA) documentation from the MCOs
- Medical records from providers

Technical Methods of Data Collection and Analysis. Qlarant conducted EDV in accordance with the *CMS External Quality Review (EQR) Protocol 5, Validation of Encounter Data Reported by the Medicaid and CHIP Managed Care Plan*. To assess the completeness and accuracy of encounter data, Qlarant completed the following activities:

- **Activity 1. Reviewed state requirements for collecting and submitting encounter data.** Qlarant reviewed MDH's contractual requirements for encounter data collection and submission to ensure the MCOs followed the specifications in file format and encounter types.
- **Activity 2. Reviewed each MCO's capability to produce accurate and complete encounter data.** Qlarant evaluated each MCO's ISCA to determine whether each MCO's information system can collect and report high-quality encounter data.
- **Activity 3. Analyzed MCO electronic encounter data for accuracy and completeness.** MDH elected to contract with The Hilltop Institute at the University of Maryland, Baltimore County (Hilltop) to analyze and evaluate the validity of encounter data to complete Activity 3.

Hilltop performed an evaluation of all electronic encounter data submitted by the MCOs for MYs 2022 through 2024 to determine the validity of the encounter data and ensure the data are complete, accurate, and of high quality.

- **Activity 4. Reviewed medical records for confirmation of findings of encounter data analysis.** Qlarant’s certified coders/nurse reviewers compared electronic encounter data to medical record documentation to confirm the accuracy of reported encounters. A random sample of encounters for inpatient, outpatient, and office visit claims were reviewed to evaluate if the electronic encounter was documented in the medical record and the level of documentation supported the billed service codes. Reviewers validate patient identifiers, diagnosis codes, procedure codes, and if applicable, revenue codes.
- **Activity 5. Submitted findings to MDH.** Qlarant prepared a report for submission to MDH, which includes results, strengths, recommendations, and any required corrective action plans (CAPs).
- **Corrective Actions.** MCOs identified as requiring corrective action submitted a CAP with proposed detailed actions to correct any identified deficiencies from the EDV review. Qlarant evaluated and determined the adequacy of compliance for all CAPs. A CAP was determined to be adequate only if it addressed all required elements and components (such as timelines, action steps with identified responsible parties, and documented evidence).

Timeline. Qlarant conducted EDV for MY 2024, encompassing January 1, through December 31, 2024, for all nine HealthChoice MCOs. CAPs must be submitted within 45 calendar days of receipt of the EDV results.

Results

State Requirements for Collecting and Submitting Encounter Data

Purpose. Qlarant reviewed information regarding MDH’s requirements for collecting and submitting encounter data. MDH provided Qlarant with:

MDH’s Encounter Data Requirements and Specifications:

- Requirements for collecting and submitting encounter data by the MCOs, including specifications in the contracts between MDH and the MCO.
- Format requirements for data submissions from the MCOs.
- Requirements specifying the encounter types needing validation.
- MDH’s standards for encounter data completeness and accuracy.
- Requirements regarding timeframes for data submission.

Edit Check and Process Descriptions:

- A description of the information flow from the MCO to MDH, including the role of any contractors or data intermediaries.
- A list and description of edit checks built into MDH's Medicaid Management Information System (MMIS) that identifies how the system treats data that fails edit checks.

Resources:

- MDH's abridged data dictionary.
- Qlarant's prior year EQR report on validating encounter data.
- Hilltop's current MY report, *EQR Protocol 5, Activity 3: Validation of Encounter Data, CY 2022 to CY 2024*.
- Any other information relevant to encounter data validation.

Performance Standards. MDH establishes performance standards used to define requirements for encounters in MY 2024 HealthChoice MCO Agreements and Appendix O of MCO contracts. Subsections 4 and 5 of Section II.1 of the MY 2024 HealthChoice MCO Agreement (page 13) specify MDH's requirements for collecting and submitting encounter data by the MCOs. Appendix O of the contract includes all the COMAR provisions applicable to MCOs, including regulations concerning encounter data. Regulations applying to MY 2024 encounters are noted in the table below.

Table 1. MY 2024 Encounter Data Requirements

Requirement	COMAR
<p>A description of the applicant’s management information system, including, but not limited to:</p> <ul style="list-style-type: none"> • Capacities, including: <ul style="list-style-type: none"> ○ The ability to generate and transmit electronic claims data consistent with the Medicaid Statistical Information System (MSIS) requirements or successor systems. ○ The ability to collect and report data on enrollee and provider characteristics and on all services furnished to enrollees through an encounter data system. ○ The ability to screen the data collected for completeness, logic, and consistency; and ○ The ability to collect and report data from providers in standardized formats using secure information exchanges and technologies utilized for Medicaid quality improvement and care coordination efforts; • Software; • Characteristics; and • Ability to interface with other systems. 	10.67.03.11A
<p>A description of the applicant’s operational procedures for generating service-specific encounter data.</p>	10.67.03.11B
<p>Evidence of the applicant’s ability to report monthly, service-specific encounter data in UB04 or CMS1500 format.</p>	10.67.03.11C
<p>MCOs shall submit to MDH the following:</p> <ul style="list-style-type: none"> • Encounter data in the form and manner described in COMAR 10.67.04.15B, 42 CFR §438.242(c), and 42 CFR §438.818. 	10.67.07.03A(1)
<p>MCOs shall report to MDH any identified inaccuracies in the encounter data reported by the MCOs or its subcontractors within 30 days of the date discovered regardless of the effect which the inaccuracy has upon MCOs reimbursement.</p>	10.67.07.03B
<p>Encounter Data:</p> <ul style="list-style-type: none"> • MCOs shall submit encounter data reflecting 100% of provider-enrollee encounters, in CMS1500 or UB04 format or an alternative format previously approved by MDH. • MCOs may use alternative formats, including: <ul style="list-style-type: none"> ○ Accredited Standards Committee X12N 837 and National Council for Prescription Drug Program formats; and ○ Accredited Standards Committee X12N 835 format, as appropriate. • MCOs shall submit encounter data that identifies the provider who delivers any items or services to enrollees at a frequency and level of data to be specified by CMS and MDH, including, at a minimum: <ul style="list-style-type: none"> ○ Enrollee and provider identifying information. ○ Service, procedure, and diagnosis codes. ○ Allowed, paid, enrollee responsibility, and the third-party liability amounts; and ○ Service, claims submissions, adjudication, and payment dates. • MCOs shall report encounter data within 60 calendar days after receipt of the claim from the provider. • MCOs shall submit encounter data utilizing a secure online data transfer system. 	10.67.04.15B

MDH sets forth requirements regarding timeframes for data submission in COMAR 10.67.04.15B, which specifies that MCOs must report encounter data within 60 calendar days after receipt of the claim from the provider. For daily data exchanges, the cutoff time is 3 p.m. for transmission of a single encounter data file for an MCO to receive an 835 the next day. Any encounters processed after the cutoff time will be picked up in the next adjudication cycle on the following business day.

Encounter Data Processes. MDH provided an abridged data dictionary and described the process of encounter data submission from the MCOs to MDH. MCOs can submit encounter data through a web portal or through a file transfer protocol. Each MCO may contract with a vendor or use data intermediaries to prepare encounter data submissions.

The electronic data interchange (EDI) is an automated system that includes rules dictating the transfer of data from each MCO to MDH. MDH uses the Health Insurance Portability and Accountability Act (HIPAA) EDI transaction sets and standards for data submission of 820, 834, 835, and 837 files. The 837 file contains patient claim information, while the 835 file contains the payment and/or explanation of benefits for a claim. MDH processes encounters via the Electronic Data Interchange Translator Processing System for completeness and accuracy. All encounters are validated on two levels: first by performing Level 1 and Level 2 edit checks on 837 data, using HIPAA EDI implementation guidelines; and second, within MMIS' adjudication process. The system treats encounters that fail the MMIS edit checks in the following manner:

- All denied and rejected encounters appear with the MMIS Explanation of Benefit code and description in the 8ER file, with one exception: Explanation of Benefit code 101 is excluded from this report.
- All paid and denied encounters appear in the 835 file. Denied encounters use the HIPAA EDI Claim Adjustment Reason Codes and Remittance Advice Remark Codes to report back the denied reason. Encounters marked as suspended are not included in the 835.
- In addition, MMIS generates a summary report for each MCO.

MCO's Capability to Produce Accurate and Complete Encounter Data

Purpose. Qlarant assessed each MCO's capability for collecting accurate and complete encounter data. The following steps assessed each MCO's information systems process and capabilities in capturing complete and accurate encounter data:

1. **Review of the MCO's ISCA.** The purpose of the ISCA review is to assess the MCO's information systems capabilities to capture and assimilate information from multiple data sources. The documentation review also determines if the system may be vulnerable to incomplete or inaccurate data capture, integration, storage, or reporting. Documentation review findings are used to identify issues that may contribute to inaccurate or incomplete encounter data.
2. **Interview of MCO personnel, as needed.** After reviewing the findings from the ISCA, Qlarant conducted follow-up interviews with MCO personnel, as needed, to supplement the information and ensure an understanding of the MCO's information systems and processes.

Results. Results of the document review and interview process follow.

Table 2. MY 2024 ISCA Summary

Information System Component Assessment	HealthChoice Aggregate
Captures Data Appropriately	Yes/No
Captures accurate encounter data	Yes
Captures all appropriate data elements for claims processing	Yes
Clean Claims Assessment	%
Clean Claims in 30 Days Timeliness Standard	96%
Clean Claims in 30 Days Timeliness Rate	98%
Electronic Claims Assessment	%
Percentage of electronic professional claims	95%
Percentage of electronic institutional/facility claims	87%

Analysis of MCO’s Electronic Encounter Data for Accuracy and Completeness

Purpose. MDH has an interagency governmental agreement with Hilltop to serve as the data warehouse for its encounters. Therefore, Hilltop completed Activity 3 of the EDV, which requires the following four steps for analysis:

1. Develop a plan to test data quality, based on validity requirements per data element.
2. Verify data integrity through conducting a macro analysis of encounter data.
3. Generate and review analytic reports through conducting a micro analysis of encounter data.
4. Compare findings to state-identified benchmarks.

Hilltop's report's conclusions for MY 2024's Activity 3 are provided below. *EQR Protocol 5, Activity 3: Validation of Encounter Data, CY 2022 to CY 2024*, is included in [Appendix A](#).

The analysis of the CY 2024 electronic encounter data shows a decrease in provider enrollment-related denied encounters. Although the changes in provider encounter edits still present challenges, the Department and the MCOs have continued to build on recent improvements.

The CY 2024 encounter data validation demonstrates progress in reducing denied encounters. The most concerning issue in CY 2024 encounter data is the ongoing volume of encounter denials from provider enrollment errors. The Department should continue to work with the MCOs to resolve their NPI Crosswalk and provider exceptions and enrollment issues, which will allow for more accurate rate setting in the future. Workgroup meetings with MCOs are ongoing for the CY 2025 contract, aiming to further refine which encounters should be excluded from the HFMR. In addition, "inappropriate denials" due to MMIS limitations are included in the HFMR. The Department will work with the MCOs to ensure that appropriately denied encounters will not be reported on the HFMR. In addition, some MCOs had unusually high volumes of \$0 encounters, which should also be excluded from the HFMR. In August 2025, the Department distributed files to each MCO detailing their CY 2024 \$0 reimbursement encounters submitted with and without a 09 indicator to help MCOs improve the quality of their encounter data. The Department will continue to work with the MCOs to provide an explanation and ensure the accuracy of the provider reimbursement field with future submissions.

Generally, the MCOs have similar distributions of denials, types of encounters, types of visits, and outliers, except where specifically noted in the results. This analysis identified minor outliers that merit further monitoring and investigation, though the MCOs have improved. Hilltop prepared recipient-level reports for Department staff to discuss with the MCOs. The Department should review the content standards and criteria for accuracy and completeness with the MCOs. Continued work with each MCO to address identified discrepancies will improve the quality and integrity of encounter submissions and enhance the Department's ability to assess the efficiency and effectiveness of the Medicaid program.

Hilltop found that the volume of accepted encounters was generally consistent with MCO enrollment. Although the time dimension analysis showed variation among MCOs regarding the timeliness of encounter submissions, most encounters were submitted within the eight-month maximum time frame allotted by the Department. While the MCOs demonstrated mixed performance on the number of encounters submitted within six months, there was a decrease in encounters submitted after six months during the evaluation period.

Analysis of Medical Records to Confirm Encounter Data Accuracy

Purpose. A review of enrollees' medical records offers a method to examine the completeness and accuracy of encounter data. Using the encounter/claims data file prepared by Hilltop, Qlarant identified all enrollees with an inpatient, outpatient, and office visit service claim.

Medical Record Sample. The sample size was selected to ensure a 90% confidence interval with a +/-5% margin of error for sampling. Oversampling was used to ensure an adequate number of medical records were received to meet the required sample size. Hospital inpatient and outpatient encounter types were oversampled by 300%, while office visit encounter types were oversampled by 400% for each MCO.

Records were requested directly from the billing providers. Qlarant mailed each sampled provider a letter with the specific record request, which included the patient's name, medical assistance identification number, date of birth, date(s) of service, claim number, and treating physician's national provider identifier number. Targeted follow-up was conducted, as needed, with providers who did not respond to the initial request, including phone calls and fax requests. Providers were asked to securely submit medical record information to Qlarant with the following instructions:

- Identify documentation submitted for each patient using the patient's first and last name, medical assistance identification number, date of birth, age, gender, and provider name.
- Include all relevant medical record documentation to ensure receipt of adequate information for validating service codes (a list of recommended documentation was provided for reference).

The total number of EDV minimum samples required, classified by encounter type, is displayed in the table below. The sample size for MY 2024 remained consistent with previous years. Additional provider outreach was required to meet the minimum sample.

Table 3. MYs 2022 to 2024 Minimum Sample Required for Review by Encounter Type

Sample Size by Encounter Type	MY 2022	MY 2023	MY 2024
Inpatient	52 (2%)	52 (2%)	55 (2%)
Outpatient	497 (20%)	458 (19%)	455 (19%)
Office Visit	1,907 (78%)	1,944 (79%)	1,947 (79%)
Total	2,456	2,454	2,457

Note: Values reported are rounded to the nearest percentage for reporting only.

The following table specifies review sizes and identifies if sample size was achieved, per MCO.

Table 4. MY 2024 MCO EDV Medical Record Review Response Rates by Encounter Type

Response Rate by MCO	ABH	CFCHP	JMS	KPMAS	MPC	MSFC	PPMCO	UHC	WPM
Inpatient Records Reviewed (#)	7	7	8	5	5	6	7	6	5
Minimum Reviews Required (#)	7	7	8	5	5	6	6	6	5
Sample Size Achieved (Yes/No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Outpatient Records Reviewed (#)	52	50	76	18	56	56	58	51	48
Minimum Reviews Required (#)	50	49	73	18	54	56	58	50	47
Sample Size Achieved (Yes/No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Office Visit Records Reviewed (#)	218	221	193	252	216	212	210	219	224
Minimum Reviews Required (#)	216	218	192	249	214	211	209	217	221
Sample Size Achieved (Yes/No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Total	277	278	277	275	277	274	275	276	277

Match Rates Summary

Medical records received were verified against the sample listing and enrollee demographic information from the data file to ensure consistency between submitted encounter data and corresponding medical records. All diagnosis, procedure, and revenue codes included in the data were validated per record for the EDV. Reviews determined whether the diagnosis, procedure, and revenue codes, if applicable, were substantiated by the medical record. Qlarant defines findings of consistency in terms of *Match*, *No Match*, and *Invalid*, as described in the table below.

Table 5. MY 2024 EDV Review Determinations

Review Determinations	Criteria
Match	Determinations were a <i>Match</i> when reviewers found documentation in the record.
No Match	Determinations were a <i>No Match</i> when there was a lack of documentation in the record, coding error(s), or upcoding.
Invalid	Determinations were <i>Invalid</i> when a medical record was not legible or could not be verified against the encounter data by key identifiers: patient name, gender, date of birth, or date(s) of service. When this situation occurred, the reviewer ended the review process.

Trended Match Rate Observations. MY 2024's EDV review observed the following about match rates of HealthChoice performance across all three encounter types:

- **Match Rate Compliance.** All three encounter types, inpatient, outpatient, and office visit, exceeded the established threshold (90%) by five to nine percentage points. The total percentage of matched elements exceeds the threshold by eight percentage points.
- **Match Rate Trends.** The total percentage of matched elements experienced a slight decrease, by two percentage points, from MY 2022 to MY 2023; however, the total percentage of matched elements has remained consistent and above the compliance threshold.

Table 6. MYs 2022 through 2024 Results by Encounter Type

Encounter Type	MY 2022	MY 2023	MY 2024
Inpatient	56	54	56
Outpatient	517	467	465
Office Visit	1,953	1,967	1,965
Total Records Reviewed	2,526	2,488	2,486
Inpatient	1,206	1,208	1,231
Outpatient	7,106	6,286	6,212
Office Visit	9,753	10,650	10,276
Total Possible Elements[^]	18,065	18,144	17,719
Inpatient	1,203	1,195	1,211
Outpatient	7,033	6,144	6,125
Office Visit	9,409	10,157	9,720
Total Matched Elements	17,645	17,496	17,056
Inpatient	100%	99%	98%
Outpatient	99%	98%	99%
Office Visit	96%	95%	95%
Total Percentage of Matched Elements	98%	96%	96%

[^] Possible elements include diagnosis, procedure, and revenue codes.

Inpatient Encounters

Aggregate Results by Code Type. MY 2024's EDV study observed the following about match rates of HealthChoice performance for inpatient encounters when trending data from MY 2022 to MY 2024:

- **Match Rate Compliance.** The total match percentage for inpatient encounter type has demonstrated a consistent decline of one percentage point since MY 2022 to present; however, it has continued to surpass the established threshold (90%) by nine or ten percentage points and remained above the established threshold for MY 2024 by eight percentage points.
- **Match Rate Trends.** The aggregate results have trended consistently over the last three years, decreasing or increasing by one to three percentage points only.

Table 7. MYs 2022 through 2024 Inpatient Encounter Type Results by Code

Match Results by Code Type	MY 2022	MY 2023	MY 2024
Match	469	488	456
No Match	1	9	6
Total Elements	470	497	462
Diagnosis Match Percentage	100%	98%	99%
Match	117	73	90
No Match	0	2	2
Total Elements	117	75	92
Procedure Match Percentage	100%	97%	98%
Match	617	634	665
No Match	2	2	12
Total Elements	619	636	677
Revenue Match Percentage	100%	100%	98%
Match	1,203	1,195	1,211
No Match	3	13	20
Total Elements	1,206	1,208	1,231
Total Match Percentage	100%	99%	98%

Note: Values reported are rounded to the nearest percentage for reporting only.

MCO Results by Code Type. MY 2024’s EDV review observed the following about match rates of MCO performance by diagnosis, procedure, revenue, and total codes from inpatient encounters:

- **Match Rate Compliance.** All MCOs, except for UHC, scored above the established compliance threshold by eight or more percentage points. UHC scored (88%) two percentage points below the established compliance threshold for inpatient encounter type. This decline in score is associated with procedure and revenue codes.
- **Match Rate Trends.** Five of the nine MCOs (ABH, CFCHP, JMS, KPMAS, and WPM) demonstrated full compliance (100%) for inpatient encounter type.

Table 8. MY 2024 MCO Inpatient Results by Code Type

Code Types by MCO	ABH	CFCHP	JMS	KPMAS	MPC	MSFC	PPMCO	UHC	WPM
Diagnosis Codes Match (#)	68	72	62	42	38	51	39	38	46
Diagnosis Codes Total (#)	68	72	62	42	40	53	40	39	46
Diagnosis Codes Score (%)	100%	100%	100%	100%	95%	96%	98%	97%	100%
Procedure Codes Match (#)	8	8	11	9	12	15	15	9	3
Procedure Codes Total (#)	8	8	11	9	12	15	15	11	3
Procedure Codes Score (%)	100%	100%	100%	100%	100%	100%	100%	82%	100%
Revenue Codes Match (#)	90	95	80	63	79	106	38	58	56
Revenue Codes Total (#)	90	95	80	63	79	106	38	70	56
Revenue Codes Score (%)	100%	100%	100%	100%	100%	100%	100%	83%	100%
Total Codes Match (#)	166	175	153	114	129	172	92	105	105
Total Codes Total (#)	166	175	153	114	131	174	93	120	105
Total Codes Score (%)	100%	100%	100%	100%	98%	99%	99%	88%	100%
Number of Reviews	7	7	8	5	5	6	7	6	5

Note: Values reported are rounded to the nearest percentage for reporting only.

Outpatient Encounters

Aggregate Results by Code Type. MY 2024's EDV study observed the following about match rates of HealthChoice performance for outpatient encounters, when trending data from MY 2022 to MY 2024:

- **Match Rate Compliance.** Outpatient total match element percentages remained consistent year-over-year, dropping by only one percentage point in MY 2023 and regained that percentage point in MY 2024, ending at nine percentage points above the compliance threshold.
- **Match Rate Trends.** While diagnostic match percentage has remained steady (98%) year-over-year, MCOs demonstrated fluctuation in the procedure match percentage, declining in MY 2023 by two percentage points (97%). This fluctuation was quickly resolved as the procedure match percentage regained those two points in MY 2024, returning to the baseline from MY 2022 (99%).

Table 9. MYs 2022 through 2024 Outpatient Encounter Type Results by Code

Match Results by Code Type	MY 2022	MY 2023	MY 2024
Match	2,046	1,714	1,707
No Match	41	42	32
Total Elements	2,087	1,756	1,739
Diagnosis Match Percentage	98%	98%	98%
Match	2,887	2,620	2,616
No Match	19	75	38
Total Elements	2,906	2,695	2,654
Procedure Match Percentage	99%	97%	99%
Match	2,024	2,100	1,802
No Match	6	13	17
Total Elements	2,030	2,113	1,819
Revenue Match Percentage	100%	99%	99%
Match	6,957	6,434	6,125
No Match	66	130	87
Total Elements	7,023	6,564	6,212
Total Match Percentage	99%	98%	99%

Note: Values reported are rounded to the nearest percentage for reporting only.

MCO Results by Code Type. MY 2024's EDV study observed the following about match rates of MCO performance by diagnosis, procedure, revenue, and total codes from outpatient encounters:

- **Match Rate Compliance.** All MCOs exceeded the established compliance threshold, ranging from five to ten percentage points above.
- **Match Rate Trends.** Four of the nine MCOs (JMS, KPMAS, MPC, and WPM) demonstrated full compliance (100%) for outpatient total code match percentage. ABH consistently demonstrated the lowest score per code type; however, all results still exceeded the established threshold.

Table 10. MY 2024 MCO Outpatient Results by Code Type

Code Types by MCO	ABH	CFCHP	JMS	KPMAS	MPC	MSFC	PPMCO	UHC	WPM
Diagnosis Codes Match (#)	172	229	239	71	211	175	206	223	181
Diagnosis Codes Total (#)	184	240	241	71	212	177	206	226	182
Diagnosis Codes Score (%)	93%	95%	99%	100%	100%	99%	100%	99%	99%
Procedure Codes Match (#)	315	334	335	141	314	293	285	339	260
Procedure Codes Total (#)	334	335	337	141	314	295	297	341	260
Procedure Codes Score (%)	94%	100%	99%	100%	100%	99%	96%	99%	100%
Revenue Codes Match (#)	221	218	246	99	216	205	198	217	182
Revenue Codes Total (#)	230	219	246	99	216	206	201	219	183
Revenue Codes Score (%)	96%	100%	100%	100%	100%	100%	99%	99%	99%
Total Codes Match (#)	708	781	820	311	741	673	689	779	623
Total Codes Total (#)	748	794	824	311	742	678	704	786	625
Total Codes Score (%)	95%	98%	100%	100%	100%	99%	98%	99%	100%
Number of Reviews	52	50	76	18	56	56	58	51	48

Note: Values reported are rounded to the nearest percentage for reporting only.

Office Visit Encounters

Aggregate Results by Code Type. MY 2024’s EDV study observed the following about match rates of HealthChoice performance for office visit encounters when trending data from MY 2022 to MY 2024:

- **Match Rate Compliance.** Total match percentage for office visits, while declining from MY 2022, remains consistently above the established compliance threshold.
- **Match Rate Trends.** The aggregate diagnosis match percentage has declined by two percentage points each MY, demonstrating an overall decline of four percentage points from MY 2022 to MY 2024. Procedure match percentage has only fluctuated by one percentage point year to year, demonstrating true consistency.

Table 11. MYs 2022 through 2024 Office Visit Results by Code

Match Results by Code Type [^]	MY 2022	MY 2023	MY 2024
Match	5,669	5,982	5,731
No Match	165	294	400
Total Elements	5,848	6,276	6,131
Diagnosis Match Percentage	97%	95%	93%
Match	3,740	4,175	3,989
No Match	158	199	156
Total Elements	3,905	4,374	4,145
Procedure Match Percentage	96%	95%	96%
Match	9,409	10,157	9,720
No Match	323	493	556
Total Elements	9,732	10,650	10,276
Total Match Percentage	96%	95%	95%

[^]Revenue codes are not applicable for office visit encounters.

Note: Values reported are rounded to the nearest percentage for reporting only.

MCO Results by Code Type. MY 2024's EDV study observed the following about match rates of MCO performance by diagnosis, procedure, and total codes from office visit encounters:

- **Match Rate Compliance.** All MCOs met or exceeded the established compliance threshold for total code match. JMS was the only MCO to fall below the threshold in diagnosis code match percentage but did meet the requirement within procedure code matches.
- **Match Rate Trends.** Seven of the nine MCOs demonstrated a lower compliance percentage within diagnosis match code than procedure match codes from MY 2023 to MY 2024, the exceptions being UHC, which presented a consistent percentage across both code type matches (95%), and WPM, which presented a one-percentage-point increase from procedure to diagnosis match scores. JMS showed the largest difference between code types, with a decrease of nine percentage points between procedure and diagnosis.

Table 12. MY 2024 MCO Office Visit Results by Code Type

Code Types by MCO^	ABH	CFCHP	JMS	KPMAS	MPC	MSFC	PPMCO	UHC	WPM
Diagnosis Codes Match (#)	703	664	535	483	718	629	656	681	662
Diagnosis Codes Total (#)	745	727	615	502	764	677	684	720	697
Diagnosis Codes Score (%)	94%	91%	87%	96%	94%	93%	96%	95%	95%
Procedure Codes Match (#)	500	499	288	392	430	396	508	462	514
Procedure Codes Total (#)	522	528	300	398	437	408	519	484	549
Procedure Codes Score (%)	96%	95%	96%	98%	98%	97%	98%	95%	94%
Total Codes Match (#)	1,203	1,163	823	875	1,148	1,025	1,164	1,143	1,176
Total Codes Total (#)	1,267	1,255	915	900	1,201	1,085	1,203	1,204	1,246
Total Codes Score (%)	95%	93%	90%	97%	96%	94%	97%	95%	94%
Number of Reviews	218	221	193	252	216	212	210	219	224

^Revenue codes are not applicable for office visit encounters.

Note: Values reported are rounded to the nearest percentage for reporting only.

Aggregate Results for MY 2024 EDV

Two MCOs, JMS and WPM, have consistently demonstrated full compliance (100%) for the inpatient encounter type during all three compared years, MY 2022 through MY 2024. KPMAS has maintained full compliance (100%) in the outpatient encounter type, while both MSFC and UHC have also demonstrated consistency, maintaining a 99% compliance score for all three years. While eight of the nine MCOs show eight to ten percentage points above the compliance threshold, UHC's inpatient compliance score (88%) has fallen two percentage points below the threshold. This will result in UHC being required to submit a CAP for MY 2024. JMS also demonstrated a significant decline in the office visit encounter type, dropping by eight percentage points (90%), but has met the established threshold.

Table 13. MYs 2022 through 2024 MCO and HealthChoice Results by Encounter Type

MY	ABH	CFCHP	JMS	KPMAS	MPC	MSFC	PPMCO	UHC	WPM	HealthChoice
Inpatient	%	%	%	%	%	%	%	%	%	%
MY 2022	100%	100%	100%	100%	99%	99%	100%	99%	100%	100%
MY 2023	96%	99%	100%	99%	97%	98%	100%	99%	100%	99%
MY 2024	100%	100%	100%	100%	98%	99%	99%	88%	100%	98%
Outpatient	%	%	%	%	%	%	%	%	%	%
MY 2022	99%	100%	99%	100%	99%	99%	97%	99%	99%	99%
MY 2023	99%	98%	98%	100%	98%	99%	94%	99%	97%	98%
MY 2024	95%	98%	100%	100%	100%	99%	98%	99%	100%	99%
Office Visit	%	%	%	%	%	%	%	%	%	%
MY 2022	95%	93%	96%	99%	96%	99%	97%	98%	94%	96%
MY 2023	95%	95%	98%	97%	94%	95%	96%	95%	95%	95%
MY 2024	95%	93%	90%	97%	96%	94%	97%	95%	94%	95%

Note: Values reported are rounded to the nearest percentage for reporting only.

Red font denotes a CAP requirement for components scoring below the 90% minimum compliance score.

All Encounters No Match Summary

No Match Reason Coding Error Summary. Of the errors found in MY 2024, inpatient encounter type had no coding errors. The percentage of coding errors found in office visit encounters has increased significantly year-over-year, increasing a total of 31 percentage points in diagnosis codes and 39 percentage points in procedure codes from MY 2022. Of the errors found for revenue codes, the coding error reason consistently shows few to none.

Table 14. MYs 2022 through 2024 Coding Error Reasons for No Match Findings by Encounter Type

Encounter Type	MY 2022 No Match (#)	MY 2022 Rate (%)	MY 2022 Total Errors*(#)	MY 2023 No Match (#)	MY 2023 Rate (%)	MY 2023 Total Errors*(#)	MY 2024 No Match (#)	MY 2024 Rate (%)	MY 2024 Total Errors*(#)
Inpatient Diagnosis	0	0%	1	4	44%	9	0	0%	6
Outpatient Diagnosis	2	5%	41	5	12%	42	2	6%	32
Office Visit Diagnosis	9	6%	165	70	24%	294	148	37%	400
Inpatient Procedure	0	0%	0	0	0%	2	0	0%	2
Outpatient Procedure	0	0%	19	4	5%	75	3	8%	38
Office Visit Procedure	6	4%	158	38	19%	199	67	43%	156
Inpatient Revenue	0	0%	2	0	0%	2	0	0%	12
Outpatient Revenue	0	0%	13	2	8%	25	0	0%	17

*Total Errors account for all three no match reasons: Coding Error, Lack of Documentation, and Upcoding.

No Match Reason Lack of Documentation Summary. Of the revenue errors found year-over-year, 90% to 100% were due to lack of documentation. All errors found for inpatient encounters for MY 2024 were due to lack of documentation. While this reason does consistently account for most errors found, office visit encounters demonstrate a significant decline from MY 2022: 32 percentage points for diagnosis codes and 39 percentage points for procedure codes.

Table 15. MYs 2022 through 2024 Lack of Documentation Reasons for No Match Findings by Encounter Type

Encounter Type	MY 2022 No Match (#)	MY 2022 Rate (%)	MY 2022 Total Errors*(#)	MY 2023 No Match (#)	MY 2023 Rate (%)	MY 2023 Total Errors*(#)	MY 2024 No Match (#)	MY 2024 Rate (%)	MY 2024 Total Errors*(#)
Inpatient Diagnosis	1	100%	1	5	56%	9	6	100%	6
Outpatient Diagnosis	39	95%	41	37	88%	42	30	94%	32
Office Visit Diagnosis	156	95%	165	224	76%	294	252	63%	400
Inpatient Procedure	0	0%	0	2	100%	2	2	100%	2

Encounter Type	MY 2022 No Match (#)	MY 2022 Rate (%)	MY 2022 Total Errors*(#)	MY 2023 No Match (#)	MY 2023 Rate (%)	MY 2023 Total Errors*(#)	MY 2024 No Match (#)	MY 2024 Rate (%)	MY 2024 Total Errors*(#)
Outpatient Procedure	19	100%	19	71	95%	75	35	92%	38
Office Visit Procedure	152	96%	158	154	77%	199	89	57%	156
Inpatient Revenue	2	100%	2	2	100%	2	12	100%	12
Outpatient Revenue	13	100%	13	23	92%	25	17	100%	17

*Total Errors account for all three no match reasons: Coding Error, Lack of Documentation, and Upcoding.

No Match Reason Upcoding Summary. There are no reported instances of upcoding for MY 2024. This shows consistency with MY 2022, determining the MY 2023 instance within office visit procedure codes to be an outlier.

Table 16. MYs 2022 through 2024 Upcoding Reasons for No Match Findings by Encounter Type

Encounter Type	MY 2022 No Match (#)	MY 2022 Rate (%)	MY 2022 Total Errors*(#)	MY 2023 No Match (#)	MY 2023 Rate (%)	MY 2023 Total Errors*(#)	MY 2024 No Match (#)	MY 2024 Rate (%)	MY 2024 Total Errors*(#)
Inpatient Diagnosis	0	0%	1	0	0%	9	0	0%	6
Outpatient Diagnosis	0	0%	41	0	0%	42	0	0%	32
Office Visit Diagnosis	0	0%	165	0	0%	294	0	0%	400
Inpatient Procedure	0	0%	0	0	0%	2	0	0%	2
Outpatient Procedure	0	0%	19	0	0%	75	0	0%	38
Office Visit Procedure	0	0%	158	7	4%	199	0	0%	156
Inpatient Revenue	0	0%	2	0	0%	2	0	0%	12
Outpatient Revenue	0	0%	13	0	0%	25	0	0%	17

*Total Errors account for all three no match reasons: Coding Error, Lack of Documentation, and Upcoding.

Conclusion

HealthChoice Compliance

Qlarant and Hilltop completed an EDV study for MDH based on an assessment of encounters paid during MY 2024. MCO results remain consistent year-over-year with MCOs experiencing a one-to-five-percentage-point fluctuation but remaining above the compliance threshold (90%). In MY 2024, this remains true with the exception of JMS, which demonstrated an eight-percentage-point decrease for office visit encounter type (90%) and UHC’s inpatient encounter type, which declined by 11 points (88%). This decline in UHC’s inpatient encounter type performance places it beneath the compliance threshold by two percentage points. This is the first instance of a MCO requiring a CAP in the past three reporting years.

Corrective Action Plans

No MCOs were required to submit a CAP in MY 2023, therefore there were no CAPs to close. UHC is the only MCO that will be required to submit a CAP because of its MY 2024 compliance for inpatient encounters.

Table 17. MY 2024 Total CAPs per MCO

MCO CAP Requirements	ABH	CFCHP	JMS	KPMAS	MPC	MSFC	PPMCO	UHC	WPM
Total CAPs Required	0	0	0	0	0	0	0	1	0
Total CAPs Closed	0	0	0	0	0	0	0	0	0
MY 2023 CAP Comparison	∅	∅	∅	∅	∅	∅	∅	↑	∅

Light Green and ↓ = positive decrease in CAPs; Pink and ↑ = negative increase in CAPs; White and ∅ = no change in required CAPs

Quality Strategy Highlights

MDH established goals for match rates in the HealthChoice Quality Strategy for 2022-2024. The target compliance score for each encounter type was 99% for MY 2024. As displayed in the table below, the HealthChoice aggregate inpatient match rate fell just shy of the target score by one percentage point.

Table 18. MY 2024 HealthChoice Aggregate Performance Against Quality Strategy Targets

Requirement: Minimum Compliance Score: ≥ 90%	MY 2024 HealthChoice Aggregate	MDH Quality Strategy Targets for MY 2024
Inpatient Match Rates	98%	99%
Outpatient Match Rates	99%	99%
Office Visit Match Rates	95%	99%

Source: [HealthChoice Quality Strategy](#)

Quality, Access, and Timeliness

Qlarant identified strengths, improvements, opportunities, and recommendations summarizing aggregate performance across MCOs, based on the results of the EDV study. These strengths, improvements, opportunities, and recommendations correspond to the quality, access, and timeliness of services provided to enrollees. Qlarant adopted the following definitions for MY 2024’s EDV study:

- MCOs demonstrate **quality** by ensuring accuracy and completeness of encounter data submitted to MDH, and when compared to medical record reviews.
- MCOs demonstrate **access (or accessibility)** by ensuring access to accurate, capable, and complete information systems, which analyze and maintain encounter data in MDH’s Electronic Data Interchange Translation Processing System and MMIS.
- MCOs demonstrate **timeliness** by ensuring encounter data submissions meet timeframe requirements.

Applicable domains in quality, access, or timeliness correspond to areas of impact during the MY 2024 EDV study and identify positive (↑), negative (↓), or not applicable (NA) assessments of aggregate MCO performance.

Table 19. MY 2024 EDV Strengths, Improvements, Opportunities, and Recommendations

Domain	Strengths, Improvements, and Recommendations	Assessment
Quality	Strengths: <ul style="list-style-type: none"> • Aggregate results have remained consistent year-over-year for total match percentage. • HealthChoice aggregate results for outpatient encounter types met the MDH HealthChoice target rate as documented within the Quality Strategy. 	↑
NA	Improvements: <ul style="list-style-type: none"> • There are no formal improvements noted due to consistency over the trended period. 	NA
Quality	Opportunities: <ul style="list-style-type: none"> • While remaining well above the compliance threshold, the HealthChoice aggregate total for inpatient encounter types has shown a consistent decline of one percentage point per year. 	↓

Domain	Strengths, Improvements, and Recommendations	Assessment
	<p>MCOs have an opportunity to investigate claims data for reporting inconsistencies, as documented in the MCO-specific sections below.</p> <ul style="list-style-type: none"> Aggregate inpatient and office visit match rates did not meet the MDH HealthChoice Quality Strategy target for MY 2024, missing the goal of 99% compliance by one and four percentage points, respectively. 	
Quality	<p>Recommendations:</p> <ul style="list-style-type: none"> Opportunity for Improvement Exists in Office Visit Encounter Match Rates. All MCOs should investigate possible cause(s) for office visit encounter match rates, as an opportunity for improvement exists. While aggregate scores remained consistent from MY 2023 (95%), after the initial decline from MY 2022 (97%), no improvements have been noted in attempts to reach the MY 2024 Quality Strategy target rate (99%). Continued Lack of Documentation. Lack of documentation continues to be the primary reason for <i>No Match</i> findings across all encounters and code types. More than 55% of the aggregate office visit errors found were due to lack of documentation. Qlarant has observed this to be a pattern within the trended data. Complete and Accurate Medical Records. MCOs are encouraged to regularly audit encounter data submitted from providers to ensure that medical records justify the services billed, such as orders and reports of major services, operating records, procedures, test results, and patient care. MCOs are encouraged to monitor and ensure telehealth visits are coded properly with the correct modifiers. Provider Submissions. MCOs are encouraged to educate providers on audit needs and providing UB billing forms with patient records for clarity. Providing the orders for admission to observation and admission to the hospital unit to clarify the admission date will benefit inpatient records. Monitoring the discharge date to confirm matches within the claim data for outpatient and emergency visits ensures the validity of the record. MCOs Should Strive for Continued Improvement. While MCO compliance rates may exceed minimum compliance scores and consistent scoring demonstrates stability within the process, there should be continued efforts towards improvement to ensure a high level of quality. MCO-specific recommendations are documented within the tables below. 	↓

MCO Specific Summaries

While conducting MY 2024’s EDV study, Qlarant evaluated MCO performance to identify strengths, improvements, opportunities for improvement (referenced as “opportunities”), and recommendations, and evaluate compliance in addressing previous annual recommendations that resulted in the need for corrective action. Assessment outcomes (shown as color-coded cells and ↑, ↓, or ■) identify if the MCO adequately addressed MY 2023 recommendations. The following recommendations are based on results from the MY 2024 EDV study and pertain to all MCOs:

ABH’s Strengths, Improvements, Opportunities, and Recommendations

Table 20. ABH Strengths, Improvements, Opportunities, and Recommendations

Domain	Strengths, Improvements, Opportunities, and Recommendations	Assessment
Quality	Strengths: <ul style="list-style-type: none"> • Demonstrated 100% compliance for inpatient encounter type. • Held consistent results year-over-year for office visit encounter type 	↑
Quality	Improvements: <ul style="list-style-type: none"> • ABH improved their inpatient encounter match results by four percentage points, regaining their standing at 100% compliance from MY 2022. 	↑
Quality	Opportunities: <ul style="list-style-type: none"> • Outpatient encounter type total match rate percentage remained consistent during MY 2022 and MY 2023; however, the match rate fell four percentage points in MY 2024. Of the outpatient codes validated, diagnosis codes have the lowest compliance score at 93%. 	↓
Quality	Recommendations: <ul style="list-style-type: none"> • Investigate possible causes for the decline in outpatient encounter type match rate and determine if a mitigation plan is needed for quality improvement of submitted claims. • Coordinate with provider offices to ensure an understanding in claim requirements to improve the quality of office visit documentation compliance. 	↓

Assessment of Previous Annual Recommendations

There were no formal MY 2023 recommendations that would require action to be taken.

CFCHP’s Strengths, Improvements, Opportunities, and Recommendations

Table 21. CFCHP Strengths, Improvements, Opportunities, and Recommendations

Domain	Strengths, Improvements, Opportunities, and Recommendations	Assessment
Quality	Strengths: <ul style="list-style-type: none"> • Demonstrated 100% compliance for inpatient encounter type. • Consistently scored high in match rates for outpatient encounters over the trended period. 	↑
Quality	Improvements: <ul style="list-style-type: none"> • Improved inpatient match results by one percentage point, regaining MY 2022’s 100% compliance. 	↑
Quality	Opportunities: <ul style="list-style-type: none"> • Office visit encounter types, while above compliance, did experience a decline from MY 2023, hovering closer to the compliance threshold (90%). 	↓
Quality	Recommendations: <ul style="list-style-type: none"> • Investigate possible causes behind the decline in office visit encounter compliance rates. Work with providers and vendors to ensure full comprehension of claim requirements before submission. 	↓

Assessment of Previous Annual Recommendations

There were no formal MY 2023 recommendations that would require action to be taken.

JMS' Strengths, Improvements, Opportunities, and Recommendations

Table 22. JMS Strengths, Improvements, Opportunities, and Recommendations

Domain	Strengths, Improvements, Opportunities, and Recommendations	Assessment
Quality	Strengths: <ul style="list-style-type: none"> • Demonstrated 100% compliance for the inpatient encounter type year-over-year. • Consistently scored high in match rates for outpatient encounters over the trended period. 	↑
Quality	Improvements: <ul style="list-style-type: none"> • Improved outpatient encounter match rates by two percentage points from MY 2023's 100% compliance. 	↑
Quality	Opportunities: <ul style="list-style-type: none"> • Office visit encounters declined eight percentage points from MY 2023; while still compliant, the score is hovering at the compliance threshold (90%). 	↓
Quality	Recommendations: <ul style="list-style-type: none"> • Investigate the decline in office visit encounters to determine if a mitigation plan is needed for quality improvement of submitted claims. 	↓

Assessment of Previous Annual Recommendations

There were no formal MY 2023 recommendations that would require action to be taken.

KPMAS’ Strengths, Improvements, Opportunities, and Recommendations

Table 23. KPMAS Strengths, Improvements, Opportunities, and Recommendations

Domain	Strengths, Improvements, Opportunities, and Recommendations	Assessment
Quality	Strengths: <ul style="list-style-type: none"> • Demonstrated 100% compliance each year of the trended period for outpatient encounters. • Demonstrated 100% compliance in inpatient encounters for MY 2022 and MY 2023. • Showed minimal fluctuation in compliance scores year-over-year in both inpatient and office visits, varying in difference only between one to two percentage points. 	↑
Quality	Improvements: <ul style="list-style-type: none"> • Improved outpatient encounter match rates by one percentage point from MY 2023, resulting in 100% compliance. 	↑
Quality	Opportunities: <ul style="list-style-type: none"> • Office visit encounters score the lowest in compliance compared to other encounter types; while still achieving scores well within compliance, this encounter type consistently scores the lowest over the trended period. 	↓
Quality	Recommendations: <ul style="list-style-type: none"> • Investigate possible reasoning behind the difference in office visit scores and other encounter scores. Work with providers and vendors to ensure full comprehension of claim requirements before submission. 	↓

Assessment of Previous Annual Recommendations

There were no formal MY 2023 recommendations that would require action to be taken.

MPC’s Strengths, Improvements, Opportunities, and Recommendations

Table 24. MPC Strengths, Improvements, Opportunities, and Recommendations

Domain	Strengths, Improvements, Opportunities, and Recommendations	Assessment
Quality	Strengths: <ul style="list-style-type: none"> Achieved 100% compliance for outpatient encounter type. Showed minimal fluctuation in compliance scores each year of the trended period in both inpatient and office visits, with only one to two percentage points in difference. 	↑
Quality	Improvements: <ul style="list-style-type: none"> Improved compliance scores in each encounter type. Outpatient encounter type improved by two percentage points to achieve 100% compliance. 	↑
Quality	Opportunities: <ul style="list-style-type: none"> Office visit encounters show a pattern of being the lowest compliance area; while still well within compliance, this is consistently the lowest-scoring encounter type each year of the trended period. 	↓
Quality	Recommendations: <ul style="list-style-type: none"> Coordinate with provider offices and vendors to ensure understanding of claim requirements to improve the quality of claim submissions. 	↓

Assessment of Previous Annual Recommendations

There were no formal MY 2023 recommendations that would require action to be taken.

MSFC’s Strengths, Improvements, Opportunities, and Recommendations

Table 25. MSFC Strengths, Improvements, Opportunities, and Recommendations

Domain	Strengths, Improvements, Opportunities, and Recommendations	Assessment
Quality	Strengths: <ul style="list-style-type: none"> • Demonstrated consistent 99% compliance year-over-year for outpatient encounter type. • Showed limited fluctuations within inpatient encounter type scores, with only one percentage point in difference. 	↑
Quality	Improvements: <ul style="list-style-type: none"> • Demonstrated a one-percentage-point improvement for inpatient encounter types. 	↑
Quality	Opportunities: <ul style="list-style-type: none"> • While still above the compliance threshold, MSFC exhibits a steady decline in compliance scores within the office visit encounter type. 	↓
Quality	Recommendations: <ul style="list-style-type: none"> • Coordinate with provider offices and vendors to ensure understanding of claim requirements to improve the quality of claim submissions. 	↓

Assessment of Previous Annual Recommendations

There were no formal MY 2023 recommendations that would require action to be taken.

PPCMO’s Strengths, Improvements, Opportunities, and Recommendations

Table 26. PPMCO Strengths, Improvements, Opportunities, and Recommendations

Domain	Strengths, Improvements, Opportunities, and Recommendations	Assessment
Quality	Strengths: <ul style="list-style-type: none"> • Demonstrated minimal fluctuations within inpatient and office visit encounter type scores, therefore maintaining general consistency in match rates. 	↑
Quality	Improvements: <ul style="list-style-type: none"> • Demonstrated a four-percentage-point increase in compliance for the outpatient encounter type from MY 2023 to MY 2024. 	↑
Quality	Opportunities: <ul style="list-style-type: none"> • While still meeting the established compliance rate for inpatient encounters at 99%, this is a decline from the 100% compliance demonstrated in both MY 2022 and MY 2023. 	↓
Quality	Recommendations: <ul style="list-style-type: none"> • Investigate the decline to determine if a mitigation plan is needed for quality improvement of submitted claims or if the slight decline is due to an outlier. 	↓

Assessment of Previous Annual Recommendations

There were no formal MY 2023 recommendations that would require action to be taken.

UHC’s Strengths, Improvements, Opportunities, and Recommendations

Table 27. UHC Strengths, Improvements, Opportunities, and Recommendations

Domain	Strengths, Improvements, Opportunities, and Recommendations	Assessment
Quality	Strengths: <ul style="list-style-type: none"> • Demonstrated consistent compliance scores within outpatient encounter types at 99% over the trended period. 	↑
NA	Improvements: <ul style="list-style-type: none"> • There are no formal improvements noted. 	NA
Quality	Opportunities: <ul style="list-style-type: none"> • CAP: UHC’s total score for the inpatient encounter type fell below the established compliance threshold of 90% by two percentage points and, therefore, is required to complete a CAP to identify and mitigate future issues. • While total match scores have remained above the compliance threshold for office visit percentages, there is a notable decline by three percentage points from MY 2022 to MY 2024. 	↓
Quality	Recommendations: <ul style="list-style-type: none"> • Work with hospital facilities to ensure proper documentation for each admission is captured within patient charts to support claims submitted, improving the validity of inpatient encounter claims. 	↓

Assessment of Previous Annual Recommendations

There were no formal MY 2023 recommendations that would require action to be taken.

WPM’s Strengths, Improvements, Opportunities, and Recommendations

Table 28. WPM Strengths, Improvements, Opportunities, and Recommendations

Domain	Strengths, Improvements, Opportunities, and Recommendations	Assessment
Quality	Strengths: <ul style="list-style-type: none"> • Demonstrated full compliance (100%) consistently over the trended period for inpatient encounters. • Exhibited an increase in compliance, achieving full compliance for the outpatient encounter type in MY 2024. 	↑
Quality	Improvements: <ul style="list-style-type: none"> • Demonstrated a three-percentage-point increase in outpatient match rates, resulting in 100% compliance in MY 2024. 	↑
Quality	Opportunities: <ul style="list-style-type: none"> • Office visit encounters show a pattern of being the lowest compliance area; while still well within compliance, this is consistently the lowest-scoring encounter type each year of the trended period. 	↓
Quality	Recommendations: <ul style="list-style-type: none"> • Coordinate with provider offices and vendors to ensure understanding of claim requirements to improve the quality of claim submissions 	↓

Assessment of Previous Annual Recommendations

There were no formal MY 2023 recommendations that would require action to be taken.

MDH Recommendations

- Monitor UHC’s match rates for the inpatient encounter type, as the MCO has demonstrated the first need for a CAP over the trended period discussed in this report. This CAP should serve to identify and mitigate any future issues.
- Monitor JMS’ data for office visit encounters as the MCO presently hovers at the compliance threshold (90%); further decline may place JMS within the realm of non-compliance.
- Encourage MCOs to conduct internal investigations or audits to determine the cause for the continued low-level compliance of office visit match rates and monitor root causes once determined. Although MDH has achieved its Objective 4 goal of increasing the

HealthChoice aggregate scores to at least 90% by MY 2024, MDH set a specific EDV target goal of 99% match rates for all encounter types. Both inpatient (98%) and office visits (95%) types missed the goal for MY 2024.

Hilltop provided the following recommendations to MDH, focusing on specific areas for continued improvement in their 2025 report:

- Continue collaboration with MCOs to resolve provider enrollment and NPI crosswalk issues and reduce denials (The Hilltop Institute, 2025).
- Minimize denied encounters resulting from limited-risk NPI uncollapsing. MCOs should work with their provider networks to use correct NPIs in claim submissions and promptly update systems when new NPIs are assigned (The Hilltop Institute, 2025).
- Enforce adherence to \$0 reimbursement reporting indicator requirements. Consider additional reporting indicators to account for TPL or other reasons for \$0 reimbursement beyond provider denial and sub-capitation (The Hilltop Institute, 2025).
- Continue to develop and review the resolution to address the TPL variable in encounters not being captured consistently nor mapped into the expected EDI format (The Hilltop Institute, 2025).
- On a quarterly basis, share data regarding behavioral health claims paid both by the MCO and the behavioral health administrative services organization; require MCOs to prove that duplicate payments have been retracted (The Hilltop Institute, 2025).
- Flag MCOs with late encounter submissions beyond eight months for improvement (The Hilltop Institute, 2025).

Appendix A: MY 2024 Validation of Encounter Data

MDH has an interagency governmental agreement with Hilltop to serve as the data warehouse for its encounters and contracted with Hilltop to analyze and evaluate the validity of encounter data to complete Activity 3 (analyzing MCO electronic encounter data for accuracy and completeness). This appendix provides the full report of Hilltop's evaluation of all electronic encounter data submitted by the MCOs, for MYs 2022 through 2024, to determine the validity of the encounter data and ensure complete, accurate, and high-quality data.



The Hilltop Institute UMBC



EQR Protocol 5, Activity 3:
Validation of Encounter Data,
CY 2022 to CY 2024

report



December 23, 2025



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EQR Protocol 5, Activity 3: Validation of Encounter Data, CY 2022 to CY 2024

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EQR Protocol 5, Activity 3: Validation of Encounter Data, CY 2022 to CY 2024

Executive Summary

HealthChoice is Maryland's mandatory managed care system for Medicaid and the Children's Health Insurance Program (CHIP), covering close to 90% of enrollees in calendar year (CY) 2024. Participants select or are assigned a managed care organization (MCO) and primary care provider, receiving benefits equivalent to fee-for-service (FFS) Medicaid.

Since 2018, The Hilltop Institute at UMBC has worked with Qlarant, Maryland's external quality review organization (EQRO), to evaluate MCO electronic encounter data for validation as required by the Centers for Medicare & Medicaid Services (CMS). The analysis performed by Hilltop, under contract with the Maryland Department of Health (the Department), is Activity 3—analyzing electronic encounter data of the CMS External Quality Review (EQR) Protocol 5. This process focuses on the completeness, accuracy, and quality of encounter data for program monitoring, policy decisions, and capitated rate setting. This report covers CY 2022 to CY 2024. Activity 3 requires the following four steps:

1. Develop a data quality test plan based on data element validity requirements
2. Encounter data macro-analysis—verification of data integrity
3. Encounter data micro-analysis—generate and review analytic reports
4. Compare findings to state-identified benchmarks

Methods

Hilltop evaluated electronic encounter data submitted by the MCOs for CY 2022 to CY 2024, focusing on two validation areas: 1) the Department's processing of submitted encounters before acceptance and 2) review of the accepted encounter data. Documentation covered the Department's electronic data interchange (EDI) and the Medicaid Management Information System (MMIS).

Hilltop developed a test plan for data quality validation, examining failed or denied encounters during the edit checks and analyzing the reasons for denials using the 8ER report, which contains all denied encounters, including those later reversed. The report details exception codes for denied encounters, categorized as duplicate, inconsistent, missing, not eligible, not valid, and provider enrollment-related errors.¹ The provider enrollment errors are primarily linked to the implementation of the National Provider Identifier (NPI) crosswalk and the Department's provider master file edits starting in 2020.

In response to the high volume of denied encounters, Hilltop developed a methodology to identify and de-duplicate denied encounters from MMIS data—a process not performed with

¹ Provider Enrollment codes: 122, 412, 951, 961, 962, 963, 964, 965, 971, 975, 976.

the 8ER report. In collaboration with the Department and MCOs, Hilltop implemented measures to reduce the denial rates linked to the limited-risk NPI uncollapsing.² Furthermore, Hilltop examined denied encounters for risk adjustment in capitated rates using data from CY 2023 and CY 2024, transmitted data to the state’s auditor for review and assessed the impact on HealthChoice Financial Monitoring Report (HFMR) results.

Hilltop verified that the state’s identifiers (IDs)³ are accurately incorporated into the MCO information system, key data fields are populated, and data quality is maintained. Hilltop reviewed provider reimbursement for \$0 pay encounters and reporting indicators of 05 (sub-capitated), 09 (denied), and no indicator. Hilltop also investigated the third-party liability (TPL) variable in MCO encounters.

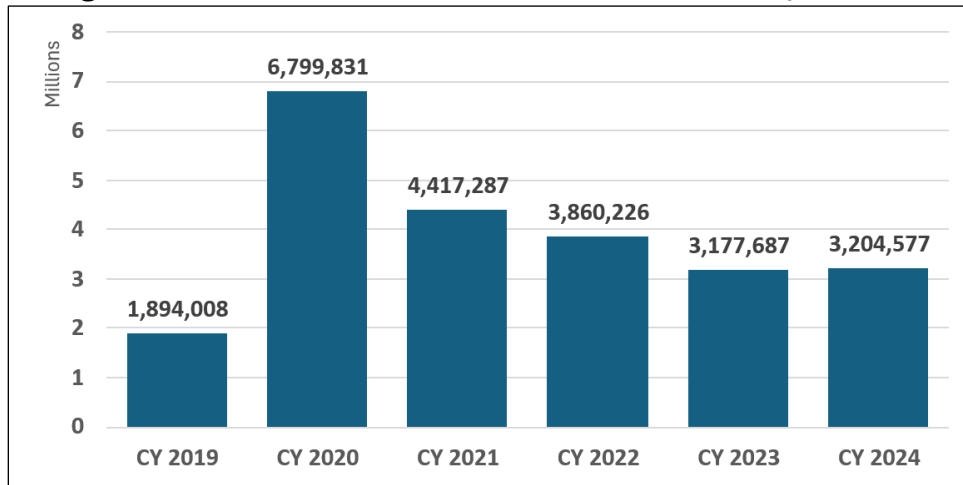
In addition, Hilltop reviewed accepted encounters and analyzed the volume and consistency of encounters submitted over time, utilization rates, data accuracy and completeness, and the timeliness of MCOs’ submissions to the Department.

Results

Denied Encounters: 8ER Report

Encounter data denials increased 259% from CY 2019 to CY 2020, then decreased by 35% in CY 2021 and by 17% from CY 2022 to CY 2024. As a percentage of all encounters submitted, however, the share of denials declined from CY 2022 to CY 2023 and remained stable in CY 2024. Figure E1 shows the total number of encounters denied from CY 2019 through CY 2024.

Figure E1. Total Number of Denied Encounters, CY 2019–CY 2024



² “NPI uncollapsing” refers to a health care data management initiative where each physical service location of a provider or organization is required to have its own unique NPI rather than share a single NPI across multiple locations. Historically, many health care organizations used one NPI for multiple locations (i.e., they “collapsed” all locations under one identifier). The uncollapsing process reverses this by assigning distinct NPIs to each location.

³ Recipient original ID (recipno), first date of service (begdos), last date of service (enddos), ICN, pay to provider number (prov), icd10 diagnosis codes, icd10 procedure codes, billdate.

Provider enrollment issues were the main reason for denials (previously included in not valid denials), accounting for between 42% and 74% of denials for each MCO in CY 2024. Other contributing factors included missing data and participant ineligibility.

Accepted Encounters: Claim Type and \$0 Pay

In CY 2024, MCOs submitted 46.5 million accepted encounters, an increase from 45.8 million in CY 2023 and 45.6 million in CY 2022. Approximately 93.5% of encounters were accepted into MMIS in CY 2024, consistent with the rate during CY 2023 and slightly higher than the acceptance rate of 92.2% in CY 2022. The denied encounters are not deduplicated, so when these encounters are de-duplicated, the acceptance rate rises considerably. Claim type distribution remained consistent, with physician claims making up nearly two-thirds of all claims and pharmacy claims about one-quarter. Inpatient hospital stays, community-based services, and long-term care services accounted for less than 1% of services. The distribution of accepted encounters remained stable across MCOs and calendar years. Provider reimbursement data for institutional and medical encounters were variable in the completeness and accuracy of \$0 pay encounters and associated reporting indicators (sub-capitated or denied). Adherence to the requirement that encounters with \$0 provider reimbursement include a reporting indicator varied significantly among the MCOs during CY 2024. Finally, Hilltop found that reporting of TPL payments remains inconsistent and observed issues with mapping of TPL into the expected EDI format. There was a small set of encounter records that processed TPL amounts incorrectly, leading to incorrect reporting of \$0 pay amounts.

Accepted Encounters: Analytic Reporting

Hilltop analyzed encounter data by reviewing submitted fields, data volume, and consistency in three key areas: time, service type, and age-appropriate diagnosis and procedure codes. Providers are required to submit claims to MCOs within six months of the date of service, and the MCOs are required to submit encounters within 60 days of claim receipt. Together, these requirements establish a maximum processing time of eight months from date of service. Although MCOs have shown mixed performance in timely submissions, late submissions (>6 months) have decreased. In CY 2024, only ABH, MSFC, and UHC increased the percentage of encounters submitted within 1 to 2 days compared to CY 2022.

Rates of inpatient hospitalizations increased slightly, while both observation stays and emergency department (ED) visits remained stable over the evaluation period. Outlier data analysis identified few encounters that varied for participants over age 65 (ineligible for HealthChoice), participants with service dates before birth, and age-inappropriate delivery and dementia diagnoses. In addition, Hilltop examined behavioral health encounter duplicates submitted both as encounters and FFS claims.

Recommendations

While the MCOs have shown improvement in their encounter data submissions during the evaluation period, Hilltop recommends that the Department focus on these areas for continued improvement:

- Continue collaboration with MCOs to resolve provider enrollment and NPI crosswalk issues and reduce denials.
- Minimize denied encounters resulting from limited-risk NPI uncollapsing. MCOs should work with their provider networks to use correct NPIs in claim submissions and promptly update systems when new NPIs are assigned.
- Enforce adherence to \$0 reimbursement reporting indicator requirements. Consider additional reporting indicators to account for TPL or other reasons for \$0 reimbursement beyond provider denial and sub-capitation.
- Continue to develop and review the resolution to address the TPL variable in encounters not being captured consistently nor mapped into the expected EDI format.
- On a quarterly basis, share data regarding behavioral health claims paid both by the MCO and the behavioral health administrative services organization; require MCOs to prove that duplicate payments have been retracted.
- Flag MCOs with late encounter submissions beyond eight months for improvement.

EQR Protocol 5, Activity 3: Validation of Encounter Data, CY 2022 to CY 2024

Introduction

HealthChoice—Maryland’s statewide mandatory Medicaid and Children’s Health Insurance Program (CHIP) managed care system—was implemented in 1997 under the Social Security Act’s §1115 waiver authority and provides participants with access to a wide range of health care services arranged or provided by managed care organizations (MCOs). In calendar year (CY) 2024, close to 90% of the state’s Medicaid and Maryland Children’s Health Program (MCHP) populations were enrolled in HealthChoice. HealthChoice participants are given the opportunity to select an MCO and primary care provider from their MCO’s network to oversee their medical care. If they do not select an MCO or primary care provider, one is automatically assigned. HealthChoice participants receive the same comprehensive benefits as those available to Maryland Medicaid (including MCHP) participants through the fee-for-service (FFS) system.

In addition to providing a wide range of services, the HealthChoice program aims to improve the accessibility and quality of health care services delivered to participants by the MCOs. The Maryland Department of Health (the Department) contracted with The Hilltop Institute at UMBC to analyze and evaluate the validity of encounter data submitted by the MCOs. Hilltop has supported the Department with monitoring and improving the quality and integrity of encounter data submissions since the inception of HealthChoice.

In 2012, the Centers for Medicare & Medicaid Services (CMS) issued external quality review (EQR) protocols to states receiving encounter data from MCOs, including eight protocols—three mandatory and five optional—focused on encounter data for quality, timeliness, and access to health care services (CMS, 2012). In April 2016, CMS released its final rule on managed care,⁴ which introduced a new regulation mandating that states require their MCOs to submit encounter data that complies with specified standards, formatting, and criteria for accuracy and completeness.⁵ This rule required substantive changes to the EQR protocols⁶ and provided an opportunity to revise the protocol design. Updated protocols were released in 2019 to assist states and external quality review organizations (EQROs) in improving the technical reports. Hilltop found that the new final rule released in November 2020 did not include substantive changes to the EQR regulations.⁷ In 2023, CMS released new EQR Protocol 5 requirements; however, there were no changes to activity for data validation (CMS, 2023). Hilltop reviewed the managed care final rule released in May 2024, which revealed that CMS is required to issue

⁴ Medicaid and CHIP Managed Care Final Rule. 81 Fed. Reg. 27,498 (May 6, 2016) (to be codified at 42 CFR Parts 431, 433, 438, 440, 457 and 495).

⁵ 42 CFR § 438.818.

⁶ 42 CFR § 438.350–438.370; 457.1250.

⁷ Medicaid and CHIP Managed Care Final Rule. 85 Fed. Reg. 72,574 (November 13, 2020) (to be codified at 42 CFR Parts 438 and 457).

protocols to ensure states' EQR technical reports incorporate outcomes data, quantitative assessments results, and validation information.⁸ States are required to begin implementation within one year of CMS publishing the protocols; Hilltop will continue to monitor CMS's release of the updated protocols.

In 2018, the Department asked Hilltop to collaborate with Qlarant, Maryland's EQRO, to annually evaluate all electronic encounter data submitted by the MCOs as part of the validation activity. Hilltop serves as the Department's data warehouse and evaluates all Maryland Medicaid encounter data, providing data-driven policy consultation, research, and analytics. Hilltop's analysis of Activity 3—analyzing electronic encounter data of the CMS EQR Protocol 5—is central to validating and ensuring the completeness, accuracy, and quality of data.

The following are the five required activities of CMS EQR Protocol 5:

- Activity 1: Review state requirements
- Activity 2: Review MCO's capability
- Activity 3: Analyze electronic encounter data
- Activity 4: Review of medical records
- Activity 5: Submission of findings

The Department required the MCOs to submit all CY 2024 encounters by June 20, 2025. In July 2025, Hilltop reviewed the 2023 CMS EQR Protocol 5 and found no changes. Hilltop also participated and presented at Encounter Data Workgroup meetings with the Department and MCOs regarding the quality and accuracy of encounter data. Hilltop then confirmed the proposed procedures for data validation with the Department and refined the methodology prior to and during this encounter data validation analysis. Next, Hilltop analyzed encounter data as of August 2025, including both denied and accepted encounters with 2024 dates of service. The review and audit processes for CY 2024 encounters concluded in November 2025.

Activity 3. Analysis of Electronic Encounter Data

Hilltop evaluated information from Activities 1 and 2 to support the analysis for Activity 3. Activity 1 is essential for developing the encounter analysis plan, as its purpose is to ensure the EQRO attains a comprehensive understanding of state requirements and standards for collecting and submitting encounter data (CMS, 2023). This activity covers types of encounters subject to validation, definitions of encounter data error types, required formatting for submitting encounters (837 standard transactions), and edit checks. Activity 2 involves evaluating MCOs' systems for collecting, reporting, and processing complete, accurate, and high-quality encounter

⁸ Medicaid and CHIP Managed Care Access, Finance, and Quality Final Rule. 89 Fed. Reg. 41,003 (May 10, 2024) (to be codified at 42 CFR Parts 430, 438 and 457).

data, as well as understanding the flow of data and their ability to resolve encounter data processing issues.

In accordance with Hilltop’s interagency governmental agreement with the Department to host a secure data warehouse for its encounters and provide data-driven policy consultation, research, and analytics, Hilltop completed Activity 3 of the encounter data validation that requires the following four steps:

1. Develop a data quality test plan based on data element validity requirements
2. Encounter data macro-analysis—verification of data integrity
3. Encounter data micro-analysis—generate and review analytic reports
4. Compare findings to state-identified benchmarks

Step 1. Develop a Data Quality Test Plan Based on Data Element Validity Requirements

Methodology

Hilltop incorporated information from Activities 1 and 2 to develop a data quality test plan. This plan accounts for both the state’s Medicaid Management Information System (MMIS) (front-end), and adjudication edits built into MMIS targeting potential data problems the state may have inadvertently missed or allowed (CMS, 2023).

The denied encounter analysis used in this report, called the 8ER analysis, includes all denied encounters, even those later accepted or changed. This approach differs from the methods used to prepare an unduplicated data set of denied encounters for inclusion or exclusion from the MCO HealthChoice Financial Monitoring Report (HFMR) reports, where duplicative denied encounters are consolidated. The 8ER analysis looks at every time MMIS processed an encounter, whereas the HFMR considers the final disposition of the encounter. In July 2025, Hilltop provided both the Department and the MCOs with reporting instructions for the final CY 2024 HFMR and supplemental financial data reports (see Appendix A).

Hilltop met with the Department regularly to review encounter data analysis, discuss improvements, test new methodologies, and coordinate messaging with the MCOs. Hilltop also participated in the bimonthly MCO Encounter Data Workgroup and followed up with the Department on such topics as data quality and accuracy, denied encounter error rates, provider enrollment edits, provider reimbursement fields, and the use of sub-indicators in those fields.

Hilltop sought feedback from the MCOs to refine and test methodologies and shared results during the 2025 Workgroup meetings. Presentations included increases in 963 edit denials; limited-risk “National Provider Identifier (NPI) uncollapsing;”⁹ and analysis of denied encounters and \$0 pay cases. Hilltop also monitored and reported on the success of the MCOs' decrease in denied encounters with 437 exceptions and the decrease in the total error code 963-related denials.

8ER Analysis

Hilltop receives the electronic data interchange (EDI) error code (exception) report data (the 8ER report) daily and analyzes the volume, types, and reasons for failed/denied encounter submissions for each MCO. This report provides an analysis of the frequency of various error types and denial categories.

⁹ “NPI uncollapsing” refers to a health care data management initiative where each physical service location of a provider or organization is required to have its own unique NPI rather than share a single NPI across multiple locations. Historically, many health care organizations used one NPI for multiple locations (i.e., they “collapsed” all locations under one identifier). The uncollapsing process reverses this by assigning distinct NPIs to each location.

In August 2018, Hilltop met with the Department to obtain information about the processes and procedures for receiving, evaluating, and reporting on the validity of MCO encounter data and documenting how encounter data are accepted and validated for completeness and accuracy. The plan was to investigate the magnitude and types of missing encounter data and identify potential issues related to data quality and MCO submissions. Information provided included, but was not limited to, the following:

- MCOs submit encounter data using the X12 data standard (837)—through a secure EDI system—to the Department. The data are then transferred to MMIS (a mainframe computing environment) for processing and validation checks, generation of exception (error) reports/data set (8ER),¹⁰ and Remittance Advices (835).
 - The EDI 837 transaction set contains patient claim information, and the EDI 835 transaction set contains the claim payment and remittance advice and/or explanation of benefits data.
 - The Department’s EDI system receives encounter data from the MCOs in a format that is HIPAA EDI X12 837-compliant. Non-compliant data are returned (rejected) to the MCO for correction and resubmission, and MMIS never receives this type of rejection. After confirming the 837 compliance, MMIS translates the data for adjudication. Adjudication results are sent back to the EDI system, which generates exception (error) reports (8ER) and a HIPAA X12 835-compliant file. The summary of exceptions codes (denied encounters) is referred to as the “8ER” report by the Department and the MCOs.
- Encounter data fields validated through the MMIS process include recipient ID, sex, age, diagnosis codes, and procedure codes.
 - The MMIS does not validate the completeness or accuracy of provider reimbursement fields,¹¹ which are related to payment amounts from MCOs to providers for delivering the service.
- The Department processes incoming encounter data from the MCOs within one to two business days.
- Error code (exception) reports (835 and 8ER) are generated by the adjudication process and sent to the MCOs.

Hilltop used 1) data from the 8ER report denied encounters, 2) reasons for failure by the EDI, and 3) comparisons of denial results from CY 2022 through CY 2024 to conduct analyses. Hilltop performed checks on critical fields for missing, invalid (incorrect), and inconsistent data, including provider number, units of service, drug number, drug quantity, revenue code, procedure code, and diagnosis code. Eligibility issues arose for participants who were not eligible for MCO services at the time of the service. Examples of inconsistent data included discrepancies between dates, diagnosis conflict with age or sex, and inconsistencies between original and

¹⁰ The 8ER report is not de-duplicated and includes denied encounters that have a paid/accepted counterpart.

¹¹ For Institutional and Medical encounters, this is the “amt_pay_by_mco” field.

resubmitted encounters. Denied encounters were classified into five categories: missing data, participant not eligible for service, value not valid for the field, inconsistent data, and duplicates. Due to the high volume of invalid encounters for provider enrollment errors, Hilltop separated the “provider enrollment” invalid encounters from “other” invalid encounters and created a sixth denial category.¹² Hilltop also examined the distribution of denied and accepted encounters.

Claim Status “X” Methodology for HFMR

The CY 2023 MCO contract introduced potential penalties for MCOs with more than 5% of encounters denied, established to improve the data accuracy for risk adjustment of capitated rates and ensure compliance with federal regulations. Due to the concerns about the impact of the increase in denied encounters impacting rate setting and risk adjustment, the Department asked Hilltop to collect data on denied encounters from the MCOs. Because Hilltop’s data warehouse already contained these encounters (claim status type ‘X’),¹³ additional data from the MCOs was not required. The analysis provided details not available in the 8ER reports by using a new de-duping methodology that excludes denials if there is an accepted counterpart.

In the MCO CY 2024 contract, the Department removed penalties since MCOs improved submissions and stayed below the 5% threshold. The Department convened workgroups with the MCOs and Hilltop to help refine the criteria for determining the appropriate denials to develop a comprehensive data set of denied encounters. Certain encounters cannot be processed because of MMIS limitations; these are considered “inappropriate denials,” and the MCOs are not being held responsible for identified MMIS limitations.

Results

Hilltop’s analysis of the 8ER identified many denied encounters due to incorrectly submitted or invalid data, mainly linked to the MCO’s implementation of changes to the requirements for provider data on encounters. The Department asked Hilltop to analyze denied encounters for capitated rate risk adjustment using data for CY 2023 and CY 2024. To calculate the total denied encounters potentially missing from the base data used for risk adjustment, Hilltop developed a process to identify and de-duplicate denied encounters using data obtained from MMIS, which is not included in the generation of 8ER reports. The 8ER reports include numerous encounters that are resubmitted with new Invoice Control Numbers (ICNs) for a previously submitted denied encounter that had a different ICN. It is common for encounters to be submitted multiple times prior to acceptance; consequently, the 8ER analysis includes each submission. As a result, there are significant duplicates of the same encounter, causing the volume of denials in the 8ER to overstate the actual number of encounters denied. Most denied encounters were due to invalid provider data, primarily attributed to the implementation of provider enrollment encounter (NPI Crosswalk) edits that went live on January 1, 2020.

¹² Provider Enrollment codes: 122, 412, 951, 961, 962, 963, 964, 965, 971, 975, 976.

¹³ X is an internal MMIS code that is sent to Hilltop in monthly files.

Hilltop sent the data set of “appropriate denials” to the state’s auditor for review and testing, beginning with the CY 2023 HFMR review. As stated in the CY 2023 HFMR instructions, these denied encounters are to be excluded from MCO HFMR costs, which are used as the base to set future MCO capitation rates. Additionally, the auditor received a data set of accepted encounters with \$0 pay amounts for evaluation, built through the same iterative and collaborative process with the MCOs and the Department. In CY 2023, the auditor provided feedback to the MCOs about the volume of denied and \$0 pay encounters found to be reported in their HFMR costs. MCOs reviewed these audit results and, as appropriate, Hilltop adjusted the methodology to determine which should be considered “appropriate denials” and which \$0 pay encounters should be reviewed by the auditor. The auditor will continue testing denied and \$0 pay CY 2024 encounters using the refined methodology. The auditor will make HFMR adjustments for CY 2025. See Appendix B for the logic for denied encounters that use claim status X and \$0 pay encounters, including details on which denied encounters are included and excluded in the HFMR.

Hilltop generated quarterly reports indicating which CPT codes most often caused 437 exceptions for inclusion in the HFMR. Hilltop distributes 437 reports that provide aggregate counts by MCO and sent to the Department. The Department then shares that information in Encounter Data Workgroup meetings.

Analysis of the 8ER report revealed a significant number of invalid encounters due to provider enrollment errors. Therefore, Hilltop created six categories for denied encounters in this year’s report: duplicate, inconsistent, missing, not eligible, not valid, and provider enrollment. See Appendix C for the list of denial categories, denial codes (explanation of benefits (EOB) error codes matching the last 3 of the ICN), and error description. Hilltop also recategorized the error codes for CY 2019 through CY 2024 to demonstrate the high volume of provider enrollment errors beginning in CY 2020. Specifically, Hilltop identified that most invalid encounters were due to provider enrollment. For this reason, the following tables cannot be compared with similar tables in prior reports. See Appendix C for the list of denial codes, categorized into provider-related codes and all others, and then subdivided by denial category for CY 2024.

Table 1 presents the distribution of denied encounters submitted by all MCOs, by category, for CY 2019 to CY 2024.

Table 1. Distribution of Denied Encounter Submissions by MMIS Denial Category, CY 2019–CY 2024

Denial Category	CY 2019 (Baseline)		CY 2020		CY 2021		CY 2022		CY 2023		CY 2024	
	# of Denied Encounters	% of Total	# of Denied Encounters	% of Total	# of Denied Encounters	% of Total	# of Denied Encounters	% of Total	# of Denied Encounters	% of Total	# of Denied Encounters	% of Total
Duplicate	103,108	5.4%	480,007	7.1%	77,347	1.8%	60,723	1.6%	49,319	1.6%	109,458	3.4%
Inconsistent	46,432*	2.5%	78,017	1.1%	40,841	0.9%	123,034	3.2%	51,590	1.6%	99,297	3.1%
Missing	344,257*	18.2%*	1,050,498*	15.4%*	753,586	17.1%	533,411	13.8%	456,532	14.4%	313,555	9.8%
Not Eligible	816,686*	43.1%	449,697*	6.6%	321,135	7.3%	529,468	13.7%	440,067	13.8%	526,032	16.4%
Not Valid**	170,935	9.0%	229,789	3.4%	194,885	4.4%	85,329	2.2%	146,262	4.6%	114,948	3.6%
Provider Enrollment**	412,590	21.8%	4,511,823	66.4%	3,029,493	68.6%	2,528,261	65.5%	2,033,917	64.0%	2,041,287	63.7%
Total	1,894,008	100%	6,799,831	100%	4,417,287	100%	3,860,226	100%	3,177,687	100%	3,204,577	100%

*The number and percentages of "Inconsistent," "Missing," and "Not Eligible" denied encounters in CY 2019 and CY 2020 were revised due to recategorizing denial codes in prior years' reports.

**The number of "Not Valid" denied encounters changed due to separating the "Provider Enrollment Not Valid" from "Other Not Valid."

Overall, the number of denied encounters decreased by 17.0% during the evaluation period (CY 2022 to CY 2024). While the denied encounters from the 8ER reports are not de-duplicated, the number of denied encounters in CY 2024 was still notably higher than in CY 2019. The number of provider enrollment-related encounters increased tenfold from CY 2019 to CY 2020, then decreased from CY 2020 to CY 2024 by 54.8%.

During the CY 2022 to CY 2024 evaluation period, provider enrollment-related denials decreased by 19.3%, while the share of all denied encounters attributed to provider enrollment data decreased by only 1.8 percentage points. The invalid denials increased by 34.7%, and the share of all denied encounters attributed to invalid data increased by only 1.4 percentage points between CY 2022 and CY 2024.

During the reporting period, "Provider Enrollment" denials were the most common, with "Missing" and "Not Eligible" denials rounding out the top three. The two categories of denials that increased in number were duplicate encounters and invalid encounters.

Table 2 presents the distribution of denied and accepted encounter submissions across MCOs for CY 2022 through CY 2024.

Table 2. Distribution of Denied and Accepted Encounter Submissions by MCO, CY 2022–CY 2024

Denied Encounters						
MCO	CY 2022		CY 2023		CY 2024	
	# of Denied Encounters	% of All Denied Encounters	# of Denied Encounters	% of All Denied Encounters	# of Denied Encounters	% of All Denied Encounters
ABH	105,659	2.7%	86,015	2.7%	39,437	1.2%
CFCHP	342,384	8.9%	92,812	2.9%	330,497	10.3%
JMS	252,155	6.5%	39,812	1.3%	16,350	0.5%
KPMAS	218,981	5.7%	163,828	5.2%	141,841	4.4%
MPC	585,477	15.2%	548,767	17.3%	590,449	18.4%
MSFC	70,142	1.8%	354,471	11.2%	286,506	8.9%
PPMCO	1,346,750	34.9%	1,102,763	34.7%	884,608	27.6%
UHC	558,659	14.5%	369,009	11.6%	379,282	11.8%
WPM	380,019	9.8%	420,210	13.2%	535,607	16.7%
Total	3,860,226	100%	3,177,687	100%	3,204,577	100%
Accepted Encounters						
MCO	CY 2022		CY 2023		CY 2024	
	# of Accepted Encounters	% of All Accepted Encounters	# of Accepted Encounters	% of All Accepted Encounters	# of Accepted Encounters	% of All Accepted Encounters
ABH	1,465,995	3.2%	1,493,493	3.3%	1,682,680	3.6%
CFCHP	2,393,506	5.3%	2,833,925	6.2%	3,160,226	6.8%
JMS	1,141,684	2.5%	1,056,101	2.3%	1,072,050	2.3%
KPMAS	3,059,397	6.7%	3,148,718	6.9%	3,244,493	7.0%
MPC	8,240,573	18.1%	8,080,070	17.6%	8,188,904	17.6%
MSFC	3,340,877	7.3%	3,389,419	7.4%	3,043,226	6.5%
PPMCO	12,115,262	26.6%	11,833,483	25.8%	11,762,772	25.3%
UHC	5,195,084	11.4%	5,030,139	11.0%	5,060,623	10.9%
WPM	8,614,423	18.9%	8,973,366	19.6%	9,246,814	19.9%
Total	45,566,801	100%	45,838,714	100%	46,461,788	100%

The volume of denied encounters decreased across many MCOs between CY 2022 and CY 2024, largely due to the implementation and usage of the Department’s provider master file. While there was an overall increase in denied encounters for Maryland Physicians Care (MPC), MedStar Family Choice, Inc. (MSFC) and Wellpoint Maryland (WPM), there were decreases for Aetna Better Health (ABH), Jai Medical Systems (JMS), Kaiser Permanente of the Mid-Atlantic States (KPMAS), Priority Partners (PPMCO), and UnitedHealthcare (UHC), followed by a slight decrease for CareFirst Community Health Plan (CFCHP).

- PPMCO had the highest share (27.6%) of all denials in CY 2024, despite a decrease of 7.3 percentage points from CY 2022.
- CFCHP’s share decreased by 6.0 percentage points between CY 2022 and CY 2023, then increased by 7.4 percentage points in CY 2024.
- MSFC had 8.9% of all denials in CY 2024, a decrease of 2.3 percentage points from CY 2023 and an increase of 7.1 percentage points from CY 2022.
- WPM had 16.7% of denials in CY 2024, an increase of 6.9 percentage points from CY 2022.
- ABH remained at 2.7% from CY 2022 to CY 2023, then decreased to 1.2% in CY 2024.
- JMS’s share of all denials experienced a decrease of 6.0 percentage points from CY 2022 to 2024, and UHC’s share decreased by 2.7 percentage points.

ABH, JMS, and KPMAS each had less than 5.0% of the denied encounters in CY 2024. All three MCOs decreased their share of denied encounters from CY 2022 to CY 2024. JMS had the most significant decrease, with a reduction of 6.0 percentage points.

Although there was some variation among MCOs in the distribution of the total denied encounters from CY 2022 to CY 2024, there was very little variation in the distribution of accepted encounters among MCOs, except for CFCHP and WPM, whose shares increased by 1.5 and 1.0 percentage points, respectively, and PPMCO, whose share decreased by 1.3 percentage points. All the other MCOs had less than a 1.0 percentage point change during the evaluation period.

Tables 3 and 4 show the rate of encounters denied by MMIS by category and MCO. Specifically, Table 3 presents the percentage of denied encounters by MMIS denial category and MCO for CY 2024. See Appendix D for a graphical representation of Table 3.

Table 3. Percentage of Denied Encounters by MMIS Denial Category by MCO, CY 2024

Denial Category	ABH	CFCHP	JMS	KPMAS	MPC	MSFC	PPMCO	UHC	WPM
Duplicate	3.0%	2.8%	2.6%	1.4%	2.3%	1.0%	0.8%	18.3%	0.6%
Inconsistent	2.5%	17.7%	0.4%	9.2%	1.0%	0.5%	0.1%	3.5%	1.0%
Missing	20.0%	11.8%	8.5%	16.9%	8.4%	3.3%	9.0%	9.1%	12.7%
Not Eligible	5.1%	13.9%	30.2%	14.8%	13.3%	21.8%	17.9%	15.4%	17.7%
Not Valid	13.1%	4.7%	16.0%	1.7%	1.3%	16.8%	2.7%	1.3%	0.9%
Provider Enrollment	56.3%	49.1%	42.3%	56.0%	73.8%	56.6%	69.5%	52.4%	67.2%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

For all MCOs, the primary reason for encounter denial in CY 2024 was “Provider Enrollment” (making up between 42.3% and 73.8% of each MCO’s denials). The second most common denial category was “Not Eligible”; JMS, MPC, MSFC, PPMCO and WPM all reported “Not Eligible” as

their second-highest category. ABH and KPMAS reported “Missing” as their second-highest denial category. CFCHP reported “Inconsistent” as their second-highest denial category in CY 2024, while UHC had “Duplicate” as their second highest. For all MCOs except for UHC, encounters denied for reasons grouped under the “Duplicate” category remained below 3.0%. UHC’s “Duplicates” represented 18.3% of their denied encounters. Encounters denied as “Inconsistent” remained below 4.0% for all MCOs except CFCHP and KPMAS, where “Inconsistent” represented 17.7% and 9.2% of denied encounters, respectively. Encounters denied as “Not Valid” remained below 5.0% for all MCOs except ABH, JMS and MSFC, where “Not Valid” represented 13.1%, 16.0% and 16.8% of denied claims, respectively.

Table 4 presents the distribution of denied encounters by denial category and how it changed for each MCO between CY 2022 and CY 2024.

Table 4. Number and Percentage of Denied Encounters by MMIS Denial Category and MCO, CY 2022–CY 2024

Denial Category	CY	ABH	CFCHP	JMS	KPMAS	MPC	MSFC	PPMCO	UHC	WPM	Total
Duplicate	2022	16	8,759	957	823	27,283	607	3,738	14,558	3,982	60,723
		0.0%	2.6%	0.4%	0.4%	4.7%	0.9%	0.3%	2.6%	1.0%	1.6%
	2023	186	843	594	1,430	3,309	7,729	5,892	25,473	3,863	49,319
		0.2%	0.9%	1.5%	0.9%	0.6%	2.2%	0.5%	6.9%	0.9%	1.6%
	2024	1,201	9,410	421	1,953	13,751	2,983	7,125	69,227	3,387	109,458
		3.0%	2.8%	2.6%	1.4%	2.3%	1.0%	0.8%	18.3%	0.6%	3.4%
Inconsistent	2022	5,162	62,819	75	3,523	1,501	741	1,253	42,262	5,698	123,034
		4.9%	18.3%	0.0%	1.6%	0.3%	1.1%	0.1%	7.6%	1.5%	3.2%
	2023	396	190	76	3,472	2,865	349	1,090	9,883	33,269	51,590
		0.5%	0.2%	0.2%	2.1%	0.5%	0.1%	0.1%	2.7%	7.9%	1.6%
	2024	974	58,604	67	13,014	5,779	1,292	1,148	13,260	5,159	99,297
		2.5%	17.7%	0.4%	9.2%	1.0%	0.5%	0.1%	3.5%	1.0%	3.1%
Missing	2022	14,259	28,442	73,168	43,191	55,069	9,998	193,751	62,825	52,708	533,411
		13.5%	8.3%	29.0%	19.7%	9.4%	14.3%	14.4%	11.2%	13.9%	13.8%
	2023	16,175	11,279	4,430	36,940	74,222	54,668	147,022	42,153	69,643	456,532
		18.8%	12.2%	11.1%	22.5%	13.5%	15.4%	13.3%	11.4%	16.6%	14.4%
	2024	7,870	38,933	1,391	24,032	49,461	9,526	79,844	34,689	67,809	313,555
		20.0%	11.8%	8.5%	16.9%	8.4%	3.3%	9.0%	9.1%	12.7%	9.8%
Not Eligible	2022	1,887	23,185	12,291	19,887	83,513	8,762	304,498	50,187	25,258	529,468
		1.8%	6.8%	4.9%	9.1%	14.3%	12.5%	22.6%	9.0%	6.6%	13.7%
	2023	2,393	12,665	11,331	13,768	51,771	86,358	146,334	47,036	68,411	440,067
		2.8%	13.6%	28.5%	8.4%	9.4%	24.4%	13.3%	12.7%	16.3%	13.8%
	2024	2,020	45,878	4,930	20,925	78,261	62,487	158,404	58,407	94,720	526,032
		5.1%	13.9%	30.2%	14.8%	13.3%	21.8%	17.9%	15.4%	17.7%	16.4%
Not Valid	2022	3,027	11,138	12,856	3,804	16,289	9,459	13,012	7,234	8,510	85,329
		2.9%	3.3%	5.1%	1.7%	2.8%	13.5%	1.0%	1.3%	2.2%	2.2%
	2023	2,535	5,383	10,901	3,247	5,772	78,741	26,353	5,360	7,970	146,262
		2.9%	5.8%	27.4%	2.0%	1.1%	22.2%	2.4%	1.5%	1.9%	4.6%
	2024	5,166	15,513	2,617	2,426	7,732	48,126	23,567	5,019	4,782	114,948
		13.1%	4.7%	16.0%	1.7%	1.3%	16.8%	2.7%	1.3%	0.9%	3.6%
Provider Enrollment	2022	81,308	208,041	152,808	147,753	401,822	40,575	830,498	381,593	283,863	2,528,261
		77.0%	60.8%	60.6%	67.5%	68.6%	57.8%	61.7%	68.3%	74.7%	65.5%
	2023	64,330	62,452	12,480	104,971	410,828	126,626	776,072	239,104	237,054	2,033,917
		74.8%	67.3%	31.3%	64.1%	74.9%	35.7%	70.4%	64.8%	56.4%	64.0%
	2024	22,206	162,159	6,924	79,491	435,465	162,092	614,520	198,680	359,750	2,041,287
		56.3%	49.1%	42.3%	56.0%	73.8%	56.6%	69.5%	52.4%	67.2%	63.7%
Total Denied Encounters	2022	105,659	342,384	252,155	218,981	585,477	70,142	1,346,750	558,659	380,019	3,860,226
	2023	86,015	92,812	39,812	163,828	548,767	354,471	1,102,763	369,009	420,210	3,177,687
	2024	39,437	330,497	16,350	141,841	590,449	286,506	884,608	379,282	535,607	3,204,577

The greatest number of denied encounters during the evaluation period were in the “Provider Enrollment” category. The total number of “Provider Enrollment” encounters decreased from 2,528,261 to 2,041,287 between CY 2022 and CY 2024, but the proportion of all denied encounters categorized as “Provider Enrollment” remained stable. The impact of provider enrollment denials was not distributed evenly across MCOs throughout the evaluation period. In CY 2024, the rate of denials categorized as “Provider Enrollment” ranged from 42.3% of JMS’s denials on the low end to 73.8% of MPC’s denials at the high end.

In CY 2024, JMS had the largest percentage of encounters denied in the “Not Eligible” category (30.2%), and ABH had the lowest (5.1%). The percentage of denials in the “Not Eligible” category increased for all MCOs from CY 2022 to CY 2024—except for MPC and PPMCO, which had decreases of 1.0 and 4.7 percentage points, respectively.

Between CY 2022 and CY 2024, the share of encounters denied in the “Not Valid” category increased for five of the nine MCOs (ABH, CHCHP, JMS, MSFC, and PPMCO). JMS had the largest increase of 10.9 percentage points. MPC and WPM’s shares of denials in the “Not Valid” category decreased slightly (1.5 and 1.3 percentage points, respectively). The share of “Not Valid” denials for KPMAS and UHC remained steady over the evaluation period, though both experienced a slight increase in CY 2023.

In the “Missing” denial category, all MCOs except two experienced a decrease in the number of denials throughout the evaluation period. From CY 2022 to CY 2024, CFCHP had an increase of 10,491, and WPM had an increase of 15,101 “Missing” encounter denials.

While the number of encounter denials categorized as “Duplicate” increased for six of the nine MCOs (ABH, CFCHP, KPMAS, MSFC, PPMCO, and UHC), the remaining MCOs (JMS, MPC, and WPM) decreased in the number of these denials, with MPC having the greatest decline, from 27,283 in CY 2022 to 13,751 in CY 2024. UHC saw the largest increase in the number of denials categorized as “Duplicate,” from 14,558 in CY 2022 to 69,227 in CY 2024.

MCOs showed varied results in the numbers and percentages of denied encounters in the “Inconsistent” category. The total number of denials categorized as “Inconsistent” during the evaluation period decreased for all MCOs except KPMAS, MPC, and MSFC, which increased significantly (by 269.4%, 285.0%, and 74.3%, respectively). Expressed as a percentage of all denied encounters, JMS, MPC, MSFC, PPMCO, and UHC demonstrated stability in the rate of denials categorized as “Inconsistent,” with year-over-year changes of one percentage point or less. By contrast, the rate for ABH, CFCHP, KPMAS, and WPM varied widely, with CFCHP as an outlier with a 17.5 percentage point change between CY 2023 to CY 2024.

Overall, between CY 2022 and CY 2024, there was a decrease in denials marked “Inconsistent,” “Missing,” “Not Eligible,” and “Provider Enrollment,” while there was an increase in denials marked “Duplicate” and “Not Valid,” though “Not Valid” denials decreased since CY 2023. From CY 2022 to CY 2024, the greatest decrease in the share of denials was in the “Missing” category, which decreased by 4.0 percentage points.

Table 5 presents denied encounters by MCO, divided into provider enrollment-related and all other denials for CY 2022 to CY 2024. See Appendix E for more specific information about the top three most common MCO-specific MMIS denial codes (errors) for CY 2024. The majority of the top three for each MCO are related to provider enrollment.¹⁴

¹⁴ Provider enrollment denial codes are 122, 412, 951, 961, 962, 963, 964, 965, 971, 975, and 976.

Table 5. Number of Denied Encounters for Provider Enrollment-Related and Other Denial Types by MCO, CY 2024

Denial Type	MCO	CY 2022	CY 2023	CY 2024
Provider Enrollment-Related	ABH	81,308	64,330	22,206
	CFCHP	208,041	62,452	162,159
	JMS	152,808	12,480	6,924
	KPMAS	147,753	104,971	79,491
	MPC	401,822	410,828	435,465
	MSFC	40,575	126,626	162,092
	PPMCO	830,498	776,072	614,520
	UHC	381,593	239,104	198,680
	WPM	283,863	237,054	359,750
	Subtotal	2,528,261	2,033,917	2,041,287
Other	ABH	24,351	21,685	17,231
	CFCHP	134,343	30,360	168,338
	JMS	99,347	27,332	9,426
	KPMAS	71,228	58,857	62,350
	MPC	183,655	137,939	154,984
	MSFC	29,567	227,845	124,414
	PPMCO	516,252	326,691	270,088
	UHC	177,066	129,905	180,602
	WPM	96,156	183,156	175,857
	Subtotal	1,331,965	1,143,770	1,163,290
Total	3,860,226	3,177,687	3,204,577	

Note: Previous reports used a slightly different list of provider enrollment-related codes, so the results for CY 2022 and CY 2023 were recategorized.

The number of provider enrollment-related denials varied across MCOs during the evaluation period. The number of encounters denied for this reason decreased for all MCOs except for MPC, MSFC, and WPM. Standouts include JMS, with a 95.5% decrease; ABH, with a 72.7% decrease; and MSFC, with a 299.5% increase in the occurrence of these errors. The HealthChoice program overall had 19.3% fewer provider enrollment-related errors in CY 2024 than in CY 2022.

Step 2. Encounter Data Macro-Analysis—Verification of Data Integrity

Methodology

Hilltop conducted integrity checks of the encounter data files and automated analyses. This process included verifying that the state’s identifiers (IDs)¹⁵ were correctly incorporated into the MCO information system; verifying that critical fields had complete data; and inspecting quality and general validity of the data. Hilltop evaluated the ratio of participants to total accepted encounters by MCO to check for similar distributions across MCOs. In addition, fields not verified

¹⁵ Recipient original ID (recipno), first date of service (begdos), last date of service (enddos), ICN, pay to provider number (prov), icd10 diagnosis codes, icd10 procedure codes, billdate.

in Step 1 were reviewed to determine how completely and accurately MCOs populated provider reimbursement fields when submitting encounter data to the Department after the mandate began on January 1, 2018.

Hilltop assessed the number of medical encounters with a \$0 provider reimbursement amount that were identified as sub-capitated or denied (MCO denied the provider claim) and compared the amount reported in the provider reimbursement field with the amount listed in the FFS fee schedule. In addition, Hilltop analyzed the completion of the institutional provider reimbursement data. Hilltop analyzed the \$0 reimbursement encounters by MCO, aggregated by the contract information segment, CN1,¹⁶ with indicators of 05 (sub-capitated), 09 (denied), and no indicator.¹⁷ Hilltop also investigated the third-party liability (TPL) variable in MCO encounters to determine whether MCOs are reporting this reimbursement amount appropriately.

Results

During CY 2024, the MCOs submitted 46.5 million accepted encounters (records), an increase from 45.8 million in CY 2023 and 45.6 million in CY 2022. Enrollment remained high through the end of CY 2023—despite the unwinding of the continuous eligibility requirements¹⁸—and began a slight decline in CY 2024. Utilization, as measured by the volume of accepted encounters, continued to rise from CY 2022 through CY 2024. To estimate the total number of encounters submitted, Hilltop added the number of accepted encounters with MMIS-denied encounters.¹⁹ This methodology resulted in an estimated 49.4 million encounters submitted in CY 2022, followed by a decrease to 49.0 million in CY 2023, and an increase to 49.7 million in CY 2024. In CY 2024, approximately 93.5% of encounters were accepted into MMIS, consistent with the rate during CY 2023 and slightly higher than the acceptance rate of 92.2% in CY 2022.

Hilltop received a monthly copy of all encounters accepted and denied by MMIS. Upon receipt, Hilltop performed comprehensive validation assessments and integrity checks of the data fields to analyze and interpret their accuracy and completeness. These assessments included checking for records with an invalid end date of service or other errors. Data with these types of quality errors were excluded from import into Hilltop’s data warehouse.

Figure 1 shows the distribution of accepted encounter submissions by claim type (physician claims, pharmacy claims, outpatient hospital claims, and other claims)²⁰ from CY 2022 to CY 2024.

¹⁶ <https://health.maryland.gov/iac/HIPAA/pdf/Companion%20Guide%20837%20Institutional%20Encounter.pdf>

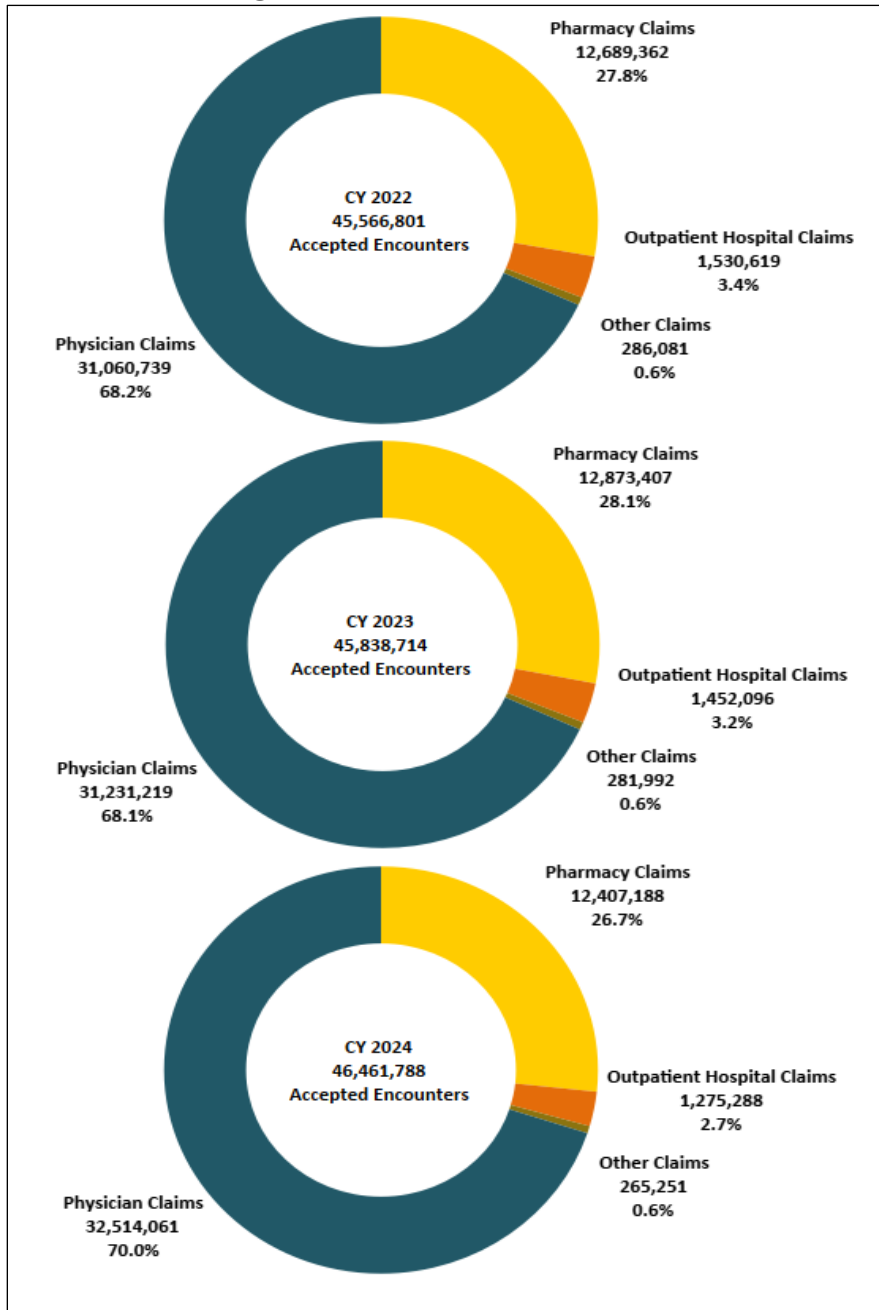
¹⁷ \$0 Pay Encounters with 09-Denied reporting indicators and \$0 Pay Encounters with no indicator are to be excluded from the HFMR.

¹⁸ <https://health.maryland.gov/newsroom/Pages/Maryland-Department-of-Health-recognized-as-a-top-state-as-it-completes-yearlong-Medicaid-redeterminations-process.aspx>

¹⁹ These denials are not deduplicated, so this overstates the denied encounters.

²⁰ “Outpatient hospital claims” include emergency department (ED) visits. “Other” includes inpatient hospital stays, community-based services, and long-term care services.

Figure 1. Number and Percentage of Accepted Encounters by Claim Type, CY 2022–CY 2024



The distribution of accepted encounters by claim type remained largely unchanged during the study period. Physician claims represented most of the encounters during the evaluation period (just over two-thirds), followed by pharmacy claims (just over one-quarter). Across the evaluation period, other encounters—including inpatient hospital stays, community-based services, and long-term care services—accounted for less than 1% of services.

Table 6 displays the percentage and number of accepted encounters by claim type for each MCO from CY 2022 to CY 2024.

Table 6. Distribution of Accepted Encounters by Claim Type and MCO, CY 2022–CY 2024

Claim Type	CY	ABH	CFCHP	JMS	KPMAS	MPC	MSFC	PPMCO	UHC	WPM
Physician Claims	2022	69.1%	68.7%	59.8%	74.5%	66.3%	66.5%	67.6%	72.1%	67.5%
		1,013,129	1,644,307	682,602	2,280,214	5,463,440	2,222,432	8,191,130	3,745,792	5,817,693
	2023	67.4%	69.1%	58.0%	73.7%	67.3%	68.9%	65.6%	71.6%	69.0%
		1,006,943	1,958,456	612,772	2,321,226	5,439,299	2,335,553	7,765,292	3,603,109	6,188,569
	2024	69.1%	70.9%	61.3%	76.1%	69.8%	67.8%	67.7%	73.3%	70.6%
		1,162,055	2,239,127	657,563	2,467,780	5,715,944	2,064,607	7,968,599	3,707,875	6,530,511
Pharmacy Claims	2022	26.4%	27.5%	36.2%	23.7%	29.2%	29.2%	28.5%	23.9%	28.3%
		386,874	657,020	413,751	726,213	2,406,846	973,973	3,447,617	1,241,078	2,435,990
	2023	29.0%	26.9%	37.3%	24.5%	29.1%	27.6%	29.4%	24.9%	27.8%
		433,636	763,158	394,177	772,994	2,350,299	935,295	3,478,092	1,253,464	2,492,292
	2024	27.7%	26.0%	34.4%	22.3%	26.7%	28.4%	28.6%	23.5%	26.2%
		465,957	821,942	369,035	722,759	2,186,653	865,415	3,363,711	1,188,770	2,422,946
Outpatient Hospital Claims	2022	3.7%	3.1%	3.6%	1.1%	3.7%	3.5%	3.5%	3.3%	3.6%
		54,446	74,166	40,800	34,086	306,000	115,292	425,008	171,977	308,844
	2023	2.9%	3.2%	3.7%	1.1%	3.0%	2.8%	4.4%	2.9%	2.8%
		43,665	91,048	38,968	35,585	238,727	94,068	515,552	145,480	249,003
	2024	2.6%	2.5%	3.2%	1.0%	2.9%	2.9%	3.2%	2.7%	2.7%
		43,743	79,698	34,461	33,863	234,177	89,722	376,822	136,026	246,776
Other Claims	2022	0.8%	0.8%	0.4%	0.6%	0.8%	0.9%	0.4%	0.7%	0.6%
		11,546	18,013	4,531	18,884	64,287	29,180	51,507	36,237	51,896
	2023	0.6%	0.8%	1.0%	0.6%	0.6%	0.7%	0.6%	0.6%	0.5%
		9,249	21,263	10,184	18,913	51,745	24,503	74,547	28,086	43,502
	2024	0.6%	0.6%	1.0%	0.6%	0.6%	0.8%	0.5%	0.6%	0.5%
		10,925	19,459	10,991	20,091	52,130	23,482	53,640	27,952	46,581
Total (100%)	2022	1,465,995	2,393,506	1,141,684	3,059,397	8,240,573	3,340,877	12,115,262	5,195,084	8,614,423
	2023	1,493,493	2,833,925	1,056,101	3,148,718	8,080,070	3,389,419	11,833,483	5,030,139	8,973,366
	2024	1,682,680	3,160,226	1,072,050	3,244,493	8,188,904	3,043,226	11,762,772	5,060,623	9,246,814

The distribution of accepted encounters remained relatively consistent across MCOs and calendar years. In CY 2024, physician encounters ranged from 61.3% of encounters (JMS) to 76.1% of encounters (KPMAS). JMS had the largest percentage of CY 2024 pharmacy encounters (34.4%), while KPMAS had the lowest percentage (22.3%). Outpatient hospital encounters in CY 2024 ranged from a low of 1.0% for KPMAS to a high of 3.2% for JMS and PPMCO. See Appendix F for a visual display of the number and percentage of accepted encounters by claim type and MCO in CY 2024.

Table 7 illustrates the distribution of HealthChoice participants and the volume of accepted encounters for each MCO during CY 2022 through CY 2024.

Table 7. Percentage of HealthChoice Participants and Accepted Encounters by MCO, CY 2022–CY 2024

MCO	CY 2022		CY 2023		CY 2024	
	Percentage of Total Participants	Percentage of All Accepted Encounters	Percentage of Total Participants	Percentage of All Accepted Encounters	Percentage of Total Participants	Percentage of All Accepted Encounters
ABH	4.1%	3.2%	4.5%	3.3%	5.0%	3.6%
CFCHP	5.8%	5.3%	6.7%	6.2%	7.6%	6.8%
JMS	2.1%	2.5%	2.1%	2.3%	2.1%	2.3%
KPMAS	8.1%	6.7%	8.4%	6.9%	8.0%	7.0%
MPC	16.8%	18.1%	16.5%	17.6%	16.2%	17.6%
MSFC	7.4%	7.3%	7.2%	7.4%	7.1%	6.5%
PPMCO	23.7%	26.6%	23.5%	25.8%	23.3%	25.3%
UHC	11.7%	11.4%	11.6%	11.0%	11.5%	10.9%
WPM	21.9%	18.9%	21.5%	19.6%	21.3%	19.9%
Total	100%	100%	100%	100%	100%	100%

PPMCO and WPM were the largest MCOs in CY 2024, followed by MPC, UHC, KPMAS, CFCHP, MSFC, ABH, and JMS. The distribution of accepted encounters among MCOs in CY 2022 through CY 2024 was nearly proportional to the participant distribution. For example, in CY 2024, MPC had 16.2% of all HealthChoice participants and 17.6% of all MMIS encounters.

Managed Care Regulations: Accurate and Complete Encounter Data

In 2016, CMS issued its final rule updating Medicaid managed care regulations²¹ to require MCOs to submit encounter data that are accurate and complete by January 2018.²² The Department notified Maryland MCOs in September 2017 that all encounter data submitted to the Department on or after January 1, 2018, must include allowed amounts and provider reimbursement amounts on each encounter (Maryland Department of Health, 2017).

²¹ Medicaid and CHIP Managed Care Final Rule. 81 Fed. Reg. 27,498 (May 6, 2016) (to be codified at 42 CFR Parts 431, 433, 438, 440, 457 and 495).

²² 42 CFR § 438.818(a)(2).

In November 2020, CMS released a new final rule²³ that included technical modifications; however, it did not include changes to the EQR or encounter data reporting regulations.

Since the Department and the MCOs worked together in 2010 to ensure the complete and accurate submission of data showing the amount paid on behalf of MCO members for their pharmacy encounters, pharmacy encounters have been reliable for over a decade. Pharmacy encounter data flow through a point-of-sale system, which ensures data accuracy at the time of submission. In October 2017, the Department established the pharmacy paid encounter process as a framework for receiving provider reimbursement data for all encounters.

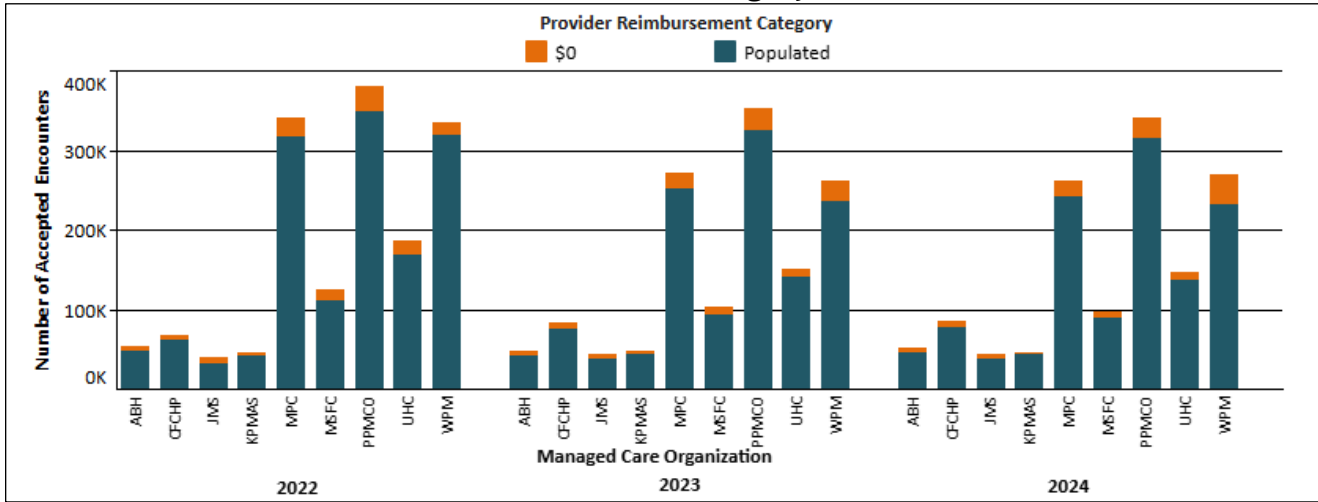
The Department staff prepared MMIS to accept provider reimbursement data for all encounters in the fall of 2017, convened technical MCO workgroups, and updated the 837 Companion Guides for professional (medical) and institutional encounters. After MCOs began submitting provider reimbursement data for all encounters in January 2018, the Department found errors in processing the reimbursement amount for medical and institutional encounters. In February 2018, the Department reviewed submissions to assess the number of encounters with missing provider reimbursement data. This analysis included categorization of instances with a reimbursement amount of \$0, separated by denied ('09' on the CN1 segment) and sub-capitated ('05' on the CN1 segment), as well as the frequency with which reimbursement fields were or were not populated. The Department shared its findings and held meetings with MCOs individually to improve their submission processes. By August 2018, MMIS had received populated provider reimbursement data for all medical encounters.

In the fall of 2018, the Department found that only the provider reimbursement amount for the first service line of each institutional encounter was being recorded, which underreported the total amount paid. This issue was corrected in mid-2020; MMIS now stores the correct sum for all the total paid institutional service lines. The Department continues working with the MCOs to ensure the validity of institutional and medical encounter data.

Figure 2 displays the distribution of provider reimbursement category for accepted institutional encounter data by MCO from CY 2022 to CY 2024.

²³ Medicaid and CHIP Managed Care Final Rule. 85 Fed. Reg. 72,574 (November 13, 2020) (to be codified at 42 CFR Parts 438 and 457).

Figure 2. Number of Accepted Institutional Encounters by MCO and Provider Reimbursement Category, CY 2022–CY 2024

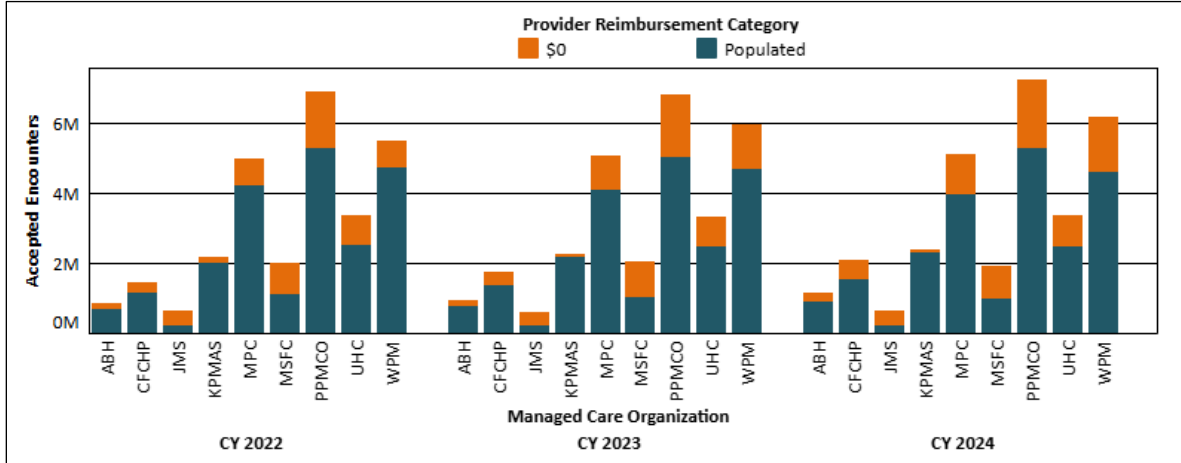


CY	Provider Reimbursement Category	ABH	CFCHP	JMS	KPMAS	MPC	MSFC	PPMCO	UHC	WPM
2022	Populated	90.0%	91.6%	83.1%	94.0%	92.8%	88.9%	91.4%	90.7%	95.1%
		48,316	62,241	32,292	42,532	316,808	110,643	348,593	168,690	319,452
	\$0	10.0%	8.4%	16.9%	6.0%	7.2%	11.1%	8.6%	9.3%	4.9%
		5,367	5,695	6,562	2,691	24,422	13,816	32,885	17,318	16,372
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	53,683	67,936	38,854	45,223	341,230	124,459	381,478	186,008	335,824	
2023	Populated	87.6%	92.2%	86.5%	93.5%	92.4%	91.6%	92.0%	92.9%	90.6%
		40,833	76,305	37,767	43,644	251,297	93,735	324,549	140,516	236,450
	\$0	12.4%	7.8%	13.5%	6.5%	7.6%	8.4%	8.0%	7.1%	9.4%
		5,775	6,487	5,875	3,016	20,679	8,631	28,090	10,736	24,536
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	46,608	82,792	43,642	46,660	271,976	102,366	352,639	151,252	260,986	
2024	Populated	91.4%	92.1%	87.8%	95.3%	92.3%	92.0%	92.8%	93.5%	86.4%
		46,327	77,937	38,433	44,354	241,719	89,573	315,962	136,827	232,903
	\$0	8.6%	7.9%	12.2%	4.7%	7.7%	8.0%	7.2%	6.5%	13.6%
		4,344	6,640	5,347	2,205	20,304	7,747	24,565	9,550	36,730
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	50,671	84,577	43,780	46,559	262,023	97,320	340,527	146,377	269,633	

The MCOs showed mixed results on the percentages of \$0 pay over the evaluation period. Those showing decreases in \$0 pay from CY 2022 to CY 2024 include JMS, MSFC, PPMCO, and UHC. Four MCOs demonstrated variable performance or remained stable—ABH, CFCHP, KPMAS, MPC—while WPM showed an increase in \$0 pay each year.

Figure 3 displays the number and percentage of accepted medical encounters by MCO and provider reimbursement category for CY 2022 through CY 2024.

Figure 3. Number of Accepted Medical Encounters by MCO and Provider Reimbursement Category, CY 2022–CY 2024



Year	Provider Reimbursement Category	ABH	CFCHP	JMS	KPMA	MPC	MSFC	PPMCO	UHC	WPM
CY 2022	Populated	80.8%	79.8%	34.2%	93.7%	84.7%	55.2%	76.3%	74.8%	86.2%
		697,565	1,151,967	222,651	2,021,446	4,230,981	1,117,555	5,284,443	2,511,339	4,729,467
	\$0	19.2%	20.2%	65.8%	6.3%	15.3%	44.8%	23.7%	25.2%	13.8%
		165,635	290,813	428,663	136,943	766,411	907,070	1,641,938	845,955	757,248
	Total	100%	100%	100%	100%	100%	100%	100%	100%	100%
863,200	1,442,780	651,314	2,158,389	4,997,392	2,024,625	6,926,381	3,357,294	5,486,715		
CY 2023	Populated	79.6%	79.2%	35.9%	96.3%	80.4%	50.3%	73.9%	74.4%	78.9%
		757,319	1,384,037	212,726	2,155,695	4,089,597	1,037,694	5,050,314	2,475,091	4,693,008
	\$0	20.4%	20.8%	64.1%	3.7%	19.6%	49.7%	26.1%	25.6%	21.1%
		194,248	364,427	379,478	83,740	994,630	1,027,232	1,785,564	849,931	1,257,830
	Total	100%	100%	100%	100%	100%	100%	100%	100%	100%
951,567	1,748,464	592,204	2,239,435	5,084,227	2,064,926	6,835,878	3,325,022	5,950,838		
CY 2024	Populated	80.3%	75.0%	34.9%	96.0%	77.8%	51.8%	73.2%	73.7%	74.3%
		913,631	1,551,215	224,153	2,296,897	3,986,853	985,158	5,292,152	2,494,543	4,589,539
	\$0	19.7%	25.0%	65.1%	4.0%	22.2%	48.2%	26.8%	26.3%	25.7%
		223,887	518,017	418,360	95,958	1,136,629	918,506	1,938,185	890,466	1,583,476
	Total	100%	100%	100%	100%	100%	100%	100%	100%	100%
1,137,518	2,069,232	642,513	2,392,855	5,123,482	1,903,664	7,230,337	3,385,009	6,173,015		

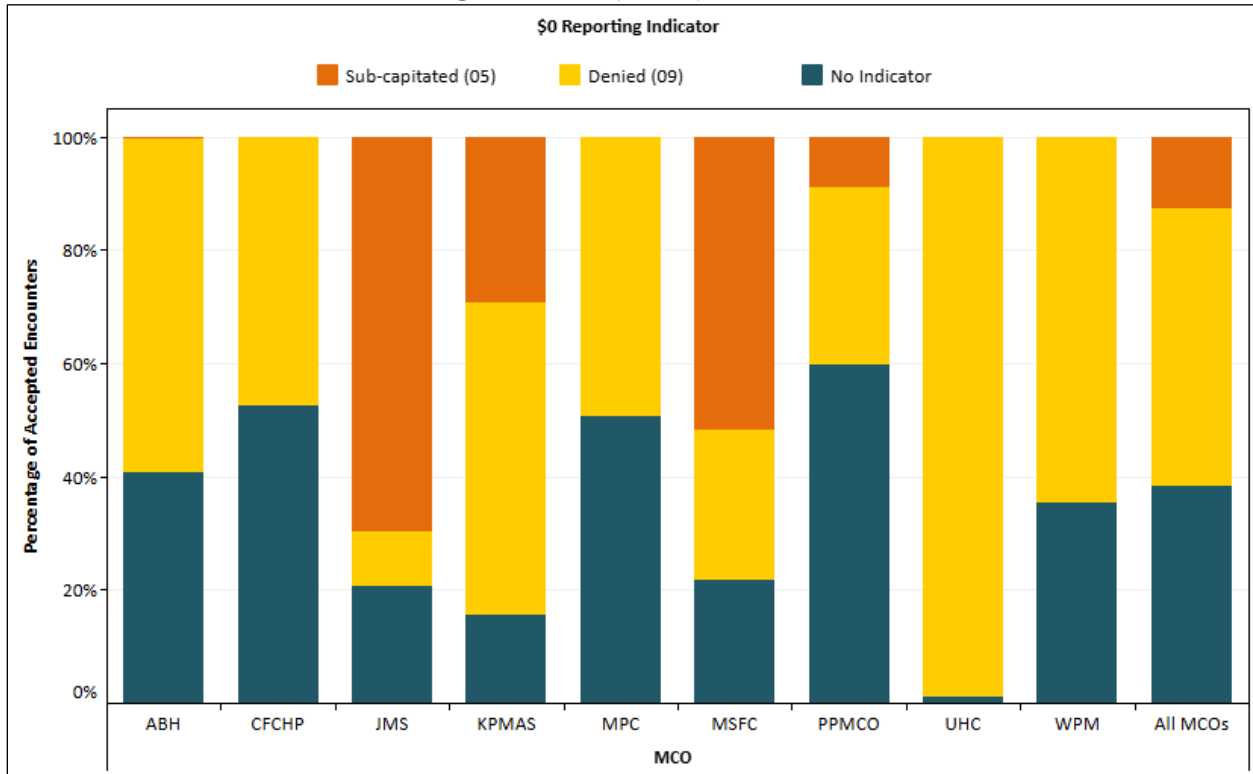
During the evaluation period, JMS²⁴ and KPMA demonstrated improvement in the rate of medical encounters submitted with provider reimbursement amounts included, albeit JMS had a

²⁴ The majority of JMS' \$0 provider reimbursement is sub-capitated ('05' on the CN1 segment).

much lower baseline (34.2% in CY 2022 to 34.9% in CY 2024) while KPMAS was 93.7% in CY 2022 and 96.0% CY 2024. All other MCOs showed a decline in that rate between CY 2022 and CY 2024, especially notable with MPC (84.7% to 77.8%) and WPM (86.2% to 74.3%).

Figure 4 displays the percentage of accepted medical encounters with a \$0 provider reimbursement amount with the sub-capitated reporting indicator (05) on the CN1 segment, the denied reporting indicator (09) on the CN1 segment, and no indicator by MCO.

Figure 4. Accepted Medical Encounters with \$0 Provider Reimbursement Data by Reporting Indicator (05/09) and MCO, CY 2024



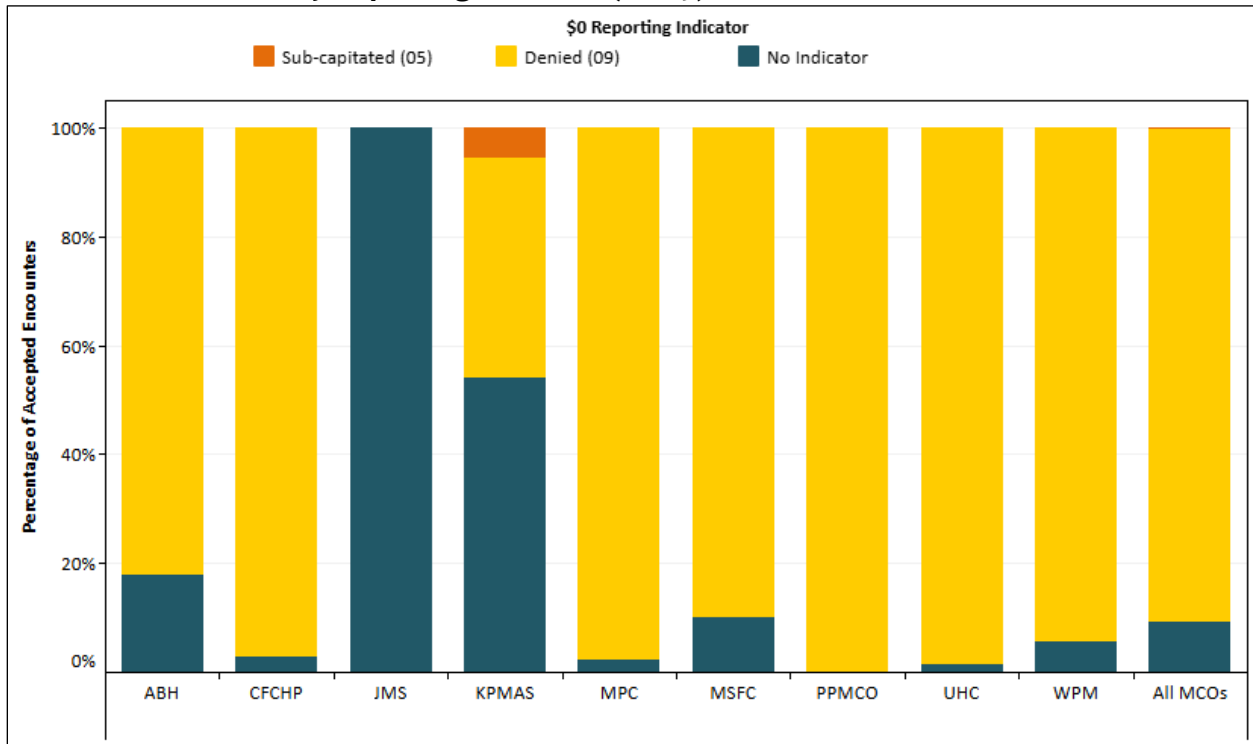
\$0 Reporting Indicator	ABH	CFCHP	JMS	KPMAS	MPC	MSFC	PPMCO	UHC	WPM	All MCOs
Sub-capitated (05)	108	0	291,998	27,985	0	476,502	173,720	0	0	970,313
	0.0%	0.0%	69.8%	29.2%	0.0%	51.9%	9.0%	0.0%	0.0%	12.6%
Denied (09)	132,406	245,603	39,768	53,016	560,976	243,711	604,887	880,403	1,024,445	3,785,215
	59.1%	47.4%	9.5%	55.2%	49.4%	26.5%	31.2%	98.9%	64.7%	49.0%
No Indicator	91,373	272,414	86,594	14,957	575,653	198,293	1,159,578	10,063	559,031	2,967,956
	40.8%	52.6%	20.7%	15.6%	50.6%	21.6%	59.8%	1.1%	35.3%	38.4%
Total	223,887	518,017	418,360	95,958	1,136,629	918,506	1,938,185	890,466	1,583,476	7,723,484
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Adherence to the requirement that encounters with \$0 provider reimbursement include a reporting indicator varied significantly among the MCOs during CY 2024. UHC was the only MCO that submitted nearly all its \$0 medical encounters with an indicator. By contrast, CFCHP, MPC, and PPMCO submitted more than one-half of their \$0 provider reimbursement medical

encounters without an indicator. The Department surveyed the MCOs regarding these results and found inconsistencies with some MCOs regarding their 05 sub-capitation reporting indicator usage compared to their reported existence of sub-capitation arrangements with medical providers during CY 2024.

Figure 5 applies the same analysis to institutional encounters, showing the percentage with \$0 provider reimbursement submitted with each indicator (05 sub-capitated or 09 denied) and without an indicator.

Figure 5. Accepted Institutional Encounters with \$0 Provider Reimbursement Data by Reporting Indicator (05/09) and MCO, CY 2024



\$0 Reporting Indicator	ABH	CFCHP	JMS	KPMAS	MPC	MSFC	PPMCO	UHC	WPM	All MCOs
Sub-capitated (05)	0	0	0	121	0	0	0	0	0	121
	0.0%	0.0%	0.0%	5.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Denied (09)	3,575	6,453	0	892	19,862	6,961	24,559	9,406	34,724	106,432
	82.3%	97.2%	0.0%	40.5%	97.8%	89.9%	100.0%	98.5%	94.5%	90.6%
No Indicator	769	187	5,347	1,192	442	786	6	144	2,006	10,879
	17.7%	2.8%	100.0%	54.1%	2.2%	10.1%	0.0%	1.5%	5.5%	9.3%
Total	4,344	6,640	5,347	2,205	20,304	7,747	24,565	9,550	36,730	117,432
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Most MCOs demonstrated a low rate of \$0 institutional encounters submitted without an indicator. Notable exceptions include JMS, which had 100% of its submissions without an indicator, and KPMAS, which submitted more than half of their \$0 institutional encounters

without an indicator and was the only MCO to use the sub-capitation indicator (05). PPMCO had 100% \$0 pay submitted encounters denied (09).

In August 2025, on behalf of the Department, Hilltop distributed files to each MCO detailing their CY 2024 \$0 reimbursement encounters submitted with a 09 indicator (“Denied by MCO”) on the CN1 segment and without an indicator. These data will help the MCOs estimate the impact of failing to comply with the requirement to include a reporting indicator on \$0 medical encounters and to improve the quality of their encounter data. These files also underwent an additional processing step whereby Hilltop removed records that had a counterpart with greater-than-\$0 provider reimbursement and the same provider, date of service, and Medicaid participant. These additional processing steps were performed to prepare files for the HFMR audit and are not analyzed for this report. This report includes encounter data that MMIS processes, regardless of whether they are included in the HFMR files.

Hilltop also analyzed the accepted medical encounters during CY 2024 by comparing the price paid against the price listed for the same service on the FFS fee schedule. Of the over 30 million medical encounters in this analysis, almost 26% of the encounters were reported with a \$0 pay amount. Approximately 40% of these were laboratory procedures. Of the encounters matched to the fee schedule with a non-zero payment amount, nearly 55% of encounters had some degree of difference between the amount paid by MCOs and the amount specified in the fee schedule. Of those encounters matched to the FFS fee schedule with a non-zero payment amount where there was some degree of difference, 70% were greater than the fee schedule payment amount and 30% were less; more than a third of these encounters were more than 20% greater than the FFS payment amount. The range by MCO of the percentage of encounters matched to the FFS fee schedule with a non-zero payment that was greater than the FFS fee schedule was from 12.4% to 28.0%.

In CY 2019, Hilltop determined that TPL was reported inconsistently in MMIS across MCOs. Some MCOs had up to 95% of their encounters with a positive TPL amount in a sample of trauma encounters from CY 2019, whereas others had no encounters with a positive TPL amount during the same period. For reference, FFS claims generally had positive TPL amounts in 1% to 3% of cases. Further analysis of a sample of trauma encounters from CY 2021 showed that the inconsistencies remained; three MCOs had no TPL for any encounters, and six MCOs had positive TPL in 85% to 99% of the encounters.

The Department reported that TPL for professional encounters was corrected in MMIS as of May 1, 2022. Analysis of trauma encounters from CY 2022 pulled from the professional file found that inconsistencies remained in TPL reporting, suggesting that only two MCOs have TPL properly recorded in professional files in CY 2022. The 2023 analysis of trauma encounters found more consistency, with four MCOs reporting TPL payments in 1% to 6% of their encounters. This decreased in CY 2024, with only three of the nine MCOs reporting TPL payments between 1% and 6%. In CY 2024, the other six MCOs did not report any TPL on their encounters, suggesting that TPL may be routinely missing from MMIS reporting for some MCOs. Hilltop will continue to investigate TPL on all encounters and will review the results with the Department. In working

with the Department, Hilltop has observed possible issues with mapping of TPL into the expected EDI format. Efforts are underway to resolve these issues.²⁵

Hilltop has not used the MCO-reported TPL amount in any analyses since CY 2018.

Step 3. Encounter Data Micro-Analysis—Generate and Review Analytic Reports

Methodology

Hilltop analyzed and interpreted data based on the submitted fields, volume and consistency of the encounter data, and utilization rates. The analyses included volume/consistency dimensions in three primary areas: time, service type, and appropriateness of diagnosis and procedure codes based on patient age. The Department helped identify several specific analyses for each primary area related to policy interests; the results can inform the development of long-term strategies for monitoring and assessing the quality of encounter data.

Hilltop conducted an analysis of encounter data by time dimensions (i.e., service date and processing date) to identify trends and evaluate data consistency. After determining the length of time between service dates and processing dates, Hilltop compared these dimensions to state standards or benchmarks for data submission and processing. Hilltop also compared time dimension data across MCOs to determine whether data are processed within similar time frames.

The service type analysis focused on three main service areas: inpatient hospitalizations, ED visits, and observation stays. The CY 2022 analysis provides baseline data and allows the Department to identify any inconsistencies in utilization patterns for these types of services in CY 2023 and CY 2024.

Finally, Hilltop analyzed whether diagnosis and procedure codes were age-appropriate. Participants older than 65 are ineligible for HealthChoice; therefore, any encounters for this population were noted, which could indicate an error in a participant's date of birth. Hilltop identified individuals with a service date before their date of birth and deliveries to participants below the age of 11 or above the age of 51. Since dementia is a disease generally associated with older age, Hilltop identified the number of participants under the age of 30 with a dementia diagnosis.²⁶ Hilltop also conducted an analysis of dental encounters for enrollees whose dental services potentially should have been covered through the FFS system. As in prior years, Hilltop provides participant-level, MCO-specific outlier reports for the Department to share with the MCOs.

²⁵ Specifically, some of the Service Line Adjudication (SVD) “loops” in the EDI transmission occurred more frequently than expected, requiring an update to MMIS mapping to be able to import.

²⁶ The ICD-10 Dementia diagnosis code G31.84 was removed.

Results

Time Dimension Analysis

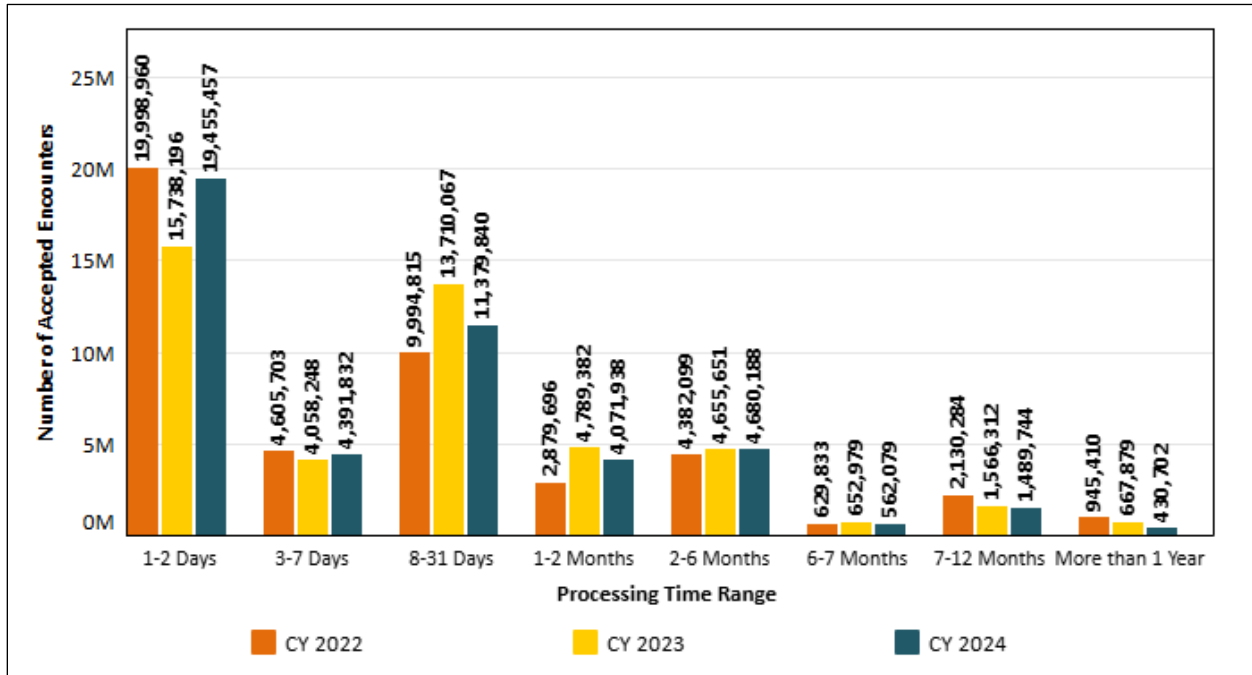
Effective analysis of the Medicaid program requires complete, accurate, and timely processing of encounter data. Encounter processing time spans the interval between the end date of service and the date on which the encounter is submitted to the Department. After providers render a service, they are required to invoice the MCO within six months. The MCO must then adjudicate the encounter within 30 days of invoice submission.²⁷ Maryland regulations require MCOs to submit encounter data to the Department “within 60 calendar days after receipt of the claim from the provider.”²⁸ Therefore, the maximum acceptable processing time allotted for an encounter between the end date of service and the date of submission to the Department is eight months.

The Medicaid program requires MCOs to submit encounters in a timely fashion; however, delays in submission occur, and some variation from month to month is expected. Noticeable changes related to timeliness may indicate irregular submission of encounter data. Figure 6 shows the timeliness of processing accepted encounter submissions from the end date of service for CY 2022 through CY 2024.

²⁷ Md. Code Ann., Health-Gen. § 15-102.3; § 15-1005.

²⁸ COMAR 10.09.65.15(B)(4).

Figure 6. Number of Accepted Encounters Submitted by Processing Time, CY 2022–CY 2024



Note for Figure 6 and Table 8: An encounter is labeled as “1-2 months” if the encounter was submitted between 32 and 60 days after the date of service; “2-6 months” if the encounter was submitted between 61 and 182 days after the date of service; “6-7 months” if the encounter was submitted between 183 and 212 days after the date of service; and “7-12 months” if the encounter was submitted between 213 and 364 days after the date of service.

Overall, there was mixed performance on the number of encounters submitted within six months. However, there was a decrease in encounters submitted after six or more months. Table 8 displays processing times for accepted encounters submitted to the Department by MCO from CY 2022 to CY 2024.

Table 8. Percentage of Accepted Encounters Submitted by MCO and Processing Time, CY 2022–CY 2024

MCO	1-2 Days			3-7 Days			8-31 Days			1-2 Months		
	CY 2022	CY 2023	CY 2024	CY 2022	CY 2023	CY 2024	CY 2022	CY 2023	CY 2024	CY 2022	CY 2023	CY 2024
ABH	33.3%	29.2%	39.8%	7.3%	7.9%	9.2%	17.1%	28.2%	22.9%	5.1%	10.3%	8.2%
CFCHP	54.0%	39.2%	47.7%	10.7%	8.6%	8.9%	16.6%	21.8%	18.3%	5.8%	7.5%	9.8%
JMS	30.6%	23.5%	26.4%	4.0%	3.9%	3.4%	16.7%	21.2%	21.0%	14.8%	15.2%	20.7%
KPMAS	57.5%	45.3%	45.3%	13.4%	11.0%	10.2%	21.2%	30.7%	21.3%	2.1%	8.0%	5.2%
MPC	47.1%	36.3%	42.4%	9.9%	8.8%	8.9%	17.5%	29.0%	21.2%	4.7%	8.5%	6.4%
MSFC	25.3%	26.4%	35.0%	5.7%	7.7%	7.4%	23.4%	33.9%	28.5%	17.4%	14.2%	13.4%
PPMCO	46.2%	33.5%	42.4%	10.7%	8.9%	10.2%	22.4%	30.1%	26.7%	5.8%	11.2%	7.9%
UHC	32.7%	24.1%	33.4%	10.5%	8.3%	9.4%	34.6%	36.4%	31.1%	7.4%	13.9%	12.0%
WPM	47.5%	39.1%	46.6%	10.9%	9.6%	10.4%	20.5%	29.0%	23.7%	4.4%	9.1%	8.2%
MCO	2-6 Months			6-7 Months			7-12 Months			More than 1 Year		
	CY 2022	CY 2023	CY 2024	CY 2022	CY 2023	CY 2024	CY 2022	CY 2023	CY 2024	CY 2022	CY 2023	CY 2024
ABH	16.5%	11.4%	15.1%	3.9%	1.8%	2.1%	10.3%	6.5%	2.3%	6.5%	4.7%	0.3%
CFCHP	9.5%	7.4%	11.4%	0.6%	1.0%	0.9%	2.3%	5.0%	2.4%	0.6%	9.5%	0.6%
JMS	14.6%	27.6%	26.1%	2.4%	4.6%	1.0%	13.1%	3.8%	0.9%	3.8%	0.3%	0.4%
KPMAS	3.2%	2.9%	8.4%	0.5%	0.3%	1.8%	1.7%	1.0%	5.8%	0.5%	0.7%	2.1%
MPC	10.2%	8.3%	11.7%	1.6%	2.8%	1.8%	5.8%	5.7%	5.9%	3.2%	0.7%	1.7%
MSFC	17.3%	10.6%	10.6%	1.9%	0.9%	1.0%	6.9%	5.5%	3.1%	1.9%	1.0%	1.0%
PPMCO	8.6%	10.9%	8.1%	1.4%	1.0%	1.1%	3.6%	3.0%	2.8%	1.3%	1.4%	1.0%
UHC	10.3%	13.6%	10.9%	1.1%	1.3%	1.0%	2.4%	2.1%	1.9%	0.9%	0.3%	0.2%
WPM	7.6%	9.9%	7.9%	1.0%	1.2%	0.8%	5.2%	1.6%	1.9%	2.8%	0.4%	0.4%

ABH, MSFC, and UHC submitted a larger percentage of their encounters within 1 to 2 days in CY 2024 than in CY 2022. Only KPMAS had worse performance in all three of the longest time delay categories (6-7 months, 7-12 months, and more than 1 year) over the evaluation period.

See Appendix G for a stacked bar chart displaying the number and percentage of encounters within each claim type from CY 2022 to CY 2024 by processing time. Appendix H provides a table outlining the number and percentage of encounters submitted by MCOs by processing time in CY 2024.

Service Type Analysis

Table 9 shows the number and percentage of encounter visits for inpatient hospitalizations, ED visits, and observation stays by MCO for CY 2022 to CY 2024.

Table 9. Number and Percentage of Inpatient Visits, ED Visits, and Observation Stays by MCO, CY 2022–CY 2024

Visits	CY	ABH	CFCHP	JMS	KPMAS	MPC	MSFC	PPMCO	UHC	WPM	Total
Number of Inpatient Visits	2022	4,176	6,923	3,086	7,679	20,100	9,272	28,102	12,816	22,277	114,431
	2023	4,850	8,579	3,237	8,050	21,226	8,333	29,778	12,871	22,688	119,612
	2024	5,669	9,222	3,344	8,948	21,144	8,081	31,984	13,742	25,631	127,765
Percentage of Inpatient Visits	2022	0.6%	0.6%	0.7%	0.7%	0.5%	0.6%	0.5%	0.5%	0.5%	0.5%
	2023	0.7%	0.7%	0.7%	0.7%	0.5%	0.5%	0.5%	0.5%	0.5%	0.6%
	2024	0.7%	0.6%	0.7%	0.8%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%
Number of ED Visits	2022	23,569	33,155	18,701	25,341	127,470	54,528	170,435	75,401	135,907	664,507
	2023	25,879	39,534	18,633	26,038	128,584	47,049	172,795	77,602	135,116	671,230
	2024	26,259	39,596	18,569	25,270	121,320	45,401	166,906	73,867	129,703	646,891
Percentage of ED Visits	2022	3.5%	3.0%	4.0%	2.2%	3.1%	3.3%	3.1%	3.1%	3.1%	3.1%
	2023	3.6%	3.1%	4.1%	2.3%	3.2%	3.0%	3.2%	3.3%	3.1%	3.1%
	2024	3.3%	2.8%	4.1%	2.3%	3.2%	3.1%	3.1%	3.3%	3.1%	3.1%
Number of Observation Stays	2022	1,430	1,811	979	1,623	8,416	2,738	9,413	7,951	6,928	41,289
	2023	1,723	2,282	949	1,741	8,052	2,273	9,513	7,601	6,925	41,059
	2024	1,850	2,149	1,036	1,648	7,561	2,130	8,435	7,256	7,026	39,091
Percentage of Observation Stays	2022	0.2%	0.2%	0.2%	0.1%	0.2%	0.2%	0.2%	0.3%	0.2%	0.2%
	2023	0.2%	0.2%	0.2%	0.2%	0.2%	0.1%	0.2%	0.3%	0.2%	0.2%
	2024	0.2%	0.2%	0.2%	0.1%	0.2%	0.1%	0.2%	0.3%	0.2%	0.2%
Total Visits of Any Type	2022	672,857	1,093,093	469,075	1,143,675	4,048,013	1,666,516	5,512,901	2,393,716	4,316,397	21,316,243
	2023	725,534	1,286,938	455,712	1,155,967	4,023,229	1,590,177	5,456,680	2,345,972	4,320,909	21,361,118
	2024	784,067	1,426,091	458,049	1,121,687	3,802,732	1,443,911	5,325,429	2,268,447	4,230,510	20,860,923
Percentage of All Visits	2022	3.2%	5.1%	2.2%	5.4%	19.0%	7.8%	25.9%	11.2%	20.2%	100%
	2023	3.4%	6.0%	2.1%	5.4%	18.8%	7.4%	25.5%	11.0%	20.2%	100%
	CY 2024	3.8%	6.8%	2.2%	5.4%	18.2%	6.9%	25.5%	10.9%	20.3%	100%

Note: Visits were duplicated between inpatient visits, ED visits, and observation stays.

For this analysis, a visit was defined as one encounter per person per provider per day. MCOs reported a consistent distribution of visits by service type for all years of the evaluation period. Total inpatient hospitalizations and observation stays combined made up less than 1.0% of all visits each year. ED visits, which were 3.1% of all visits in each year of the evaluation period for the entire HealthChoice program, ranged from 2.3% of all visits (KPMAS) to 4.1% of all visits (JMS) in CY 2024. Overall, during the evaluation period, the percentage of inpatient visits increased slightly from 0.5% in CY 2022 to 0.6% in CY 2023 and 2024. The percentage of observation stays remained stable at 0.2%. As shown in the annual HealthChoice evaluation, the overall percentage of HealthChoice participants with an outpatient ED visit, ED visit with inpatient admission, and inpatient admission decreased between CY 2019 and CY 2023 (The Hilltop Institute, 2025).

Outlier Data Analysis

Hilltop conducted an analysis of encounter data submitted by MCOs to determine the effectiveness of encounter data edit checks between CY 2022 and CY 2024. The following areas were analyzed: 1) individuals over age 65 with encounters, 2) individuals with a service date before their date of birth, 3) age-appropriate diagnoses for delivery (births), 4) age-appropriate dementia diagnoses, 5) MCO-reimbursed dental encounters, and 6) duplicate behavioral health services submitted both as encounters and as claims through the FFS system.

Because participants older than 65 are ineligible for HealthChoice, Hilltop searched for any encounters for those aged 66 or older. The number of MCO participants aged 66 or older who had encounters during the evaluation period fell between CYs 2022 and 2023 but rose again to peak in 2024.²⁹ The number of individuals with a service date before their date of birth increased between CY 2022 and CY 2023 but fell again in CY 2024.

Hilltop analyzed the volume of participants who had a diagnosis for delivery by age group between CY 2022 and CY 2024. Participants aged 0 to 11 and 51 or older are typically considered to be outside of the expected age range for delivery. Across all MCOs, the number of participants identified as delivering outside of the expected age ranges was 103 in CY 2022, 94 in CY 2023, and 101 in CY 2024. The data substantiate that, overall, the encounters submitted are age-appropriate for delivery. See Appendix I for delivery codes.

Another analysis focused on age-appropriate diagnoses of dementia (see Appendix J for dementia codes) from CY 2022 to CY 2024.³⁰ Although dementia is a disease generally associated with older age, onset can occur as early as 30 years of age. Thus, the prevalence of dementia diagnoses should increase with age after 30. Hilltop identified the number of participants under the age of 30 with an encounter with a dementia diagnosis. Only one MCO—JMS—had no dementia encounters with a participant aged 30 or younger in CY 2024. All other MCOs had a small number of such encounters, involving a total of 158 participants in CY 2024.³¹

The analysis of MCO-reimbursed dental encounters found no results in CY 2024, indicating that providers, MCOs, and the Department are aligned.

In May 2025, Hilltop completed an analysis of behavioral health encounters that were duplicates of claims submitted through the FFS system. Among professional claims, the most common type to have a duplicate encounter was presumptive and definitive drug testing, albeit many of those claims were denied by the MCO as indicated by \$0 payment and the 09 indicator. The Department continues to analyze the results.

Step 4. Compare Findings to State-Identified Benchmarks

In Steps 2 and 3, Hilltop compared the encounter data submitted by each MCO with benchmarks identified by the Department. Hilltop benchmarked each MCO against its own performance over time, as well as against other MCOs. Hilltop also identified and compared outlier data with overall trends noted among the MCOs.

Recommendations

The denied encounter analysis identified specific areas reduce denials. Hilltop's review of the 8ER reports shows that, out of approximately 49.7 million overall encounters, more than 3.2

²⁹ Data not shown due to small cell sizes.

³⁰ The ICD-10 dementia diagnosis code G31.84 was removed so the data cannot be compared to previous reports.

³¹ Data not shown by MCO due to small cell sizes.

million encounters (approximately 6.5%) were denied in CY 2024. This is a decrease from 4.4 million denied encounters in CY 2023 and 3.9 million in CY 2022. However, in CY 2019—before the use of the provider NPI crosswalk, validation, and provider enrollment edits was implemented—the number of denied encounters was 1.9 million, which increased by 259% in CY 2020. While denied encounters from the 8ER reports are not de-duplicated, their volume has continued to decline but is still higher than in CY 2019. The Department should keep monitoring and collaborating with the MCOs to resolve the usage of the Department’s provider master file and NPI Crosswalk process. The Department should also continue to encourage MCOs to work with their providers to ensure that they are enrolled on the date of service and that they know how to check their current status. In addition, the Department should work with the MCOs to minimize denied encounters resulting from limited-risk NPI uncollapsing. MCOs should coordinate with network providers to use correct NPIs in claims and update systems quickly when new NPIs are assigned.

Hilltop analyzed and interpreted the encounter data and found that, during CY 2024, the MCOs submitted a total of 46.5 million accepted encounters (records), an increase from 45.8 million in CY 2022 and 44.3 million in CY 2023. Hilltop reviewed encounters by claim type and found similar distributions among MCOs. Each MCO’s distribution of encounters across claim types remained stable throughout the calendar years. Additionally, Hilltop compared the proportion of HealthChoice participants by MCO with the proportion of accepted encounters by MCO, observing similar trends. The Department should continue to monitor the improvement in submissions of the number of accepted encounters by claim type across MCOs.

Hilltop conducted an analysis of accepted medical encounters with \$0 provider reimbursement and found that MCOs varied in their encounters submitted with populated data, with rates between 34.9% and 96.0% in CY 2024. MCOs with unusually high numbers of \$0 encounters or inconsistent use of reporting indicators should explain these figures to the Department and improve accuracy in future submissions.

Hilltop further analyzed the MCOs’ use of the 05/09 indicator on the CN1 segment on accepted medical encounters with \$0 in the provider reimbursement field. Adherence to this requirement is uneven across MCOs: denied encounters (09) were the most common among submissions (49.0%), followed by encounters with no indicator (38.4%) and those with the sub-capitated (05) indicator (12.6%). The Department should consider implementing reporting to monitor adherence to this requirement.

Hilltop found inconsistent TPL payments in MMIS, with some MCOs not reporting any TPL on encounters, suggesting frequent omission of TPL data from MMIS submissions. After one MCO raised concerns, a departmental review found a problem in a limited subset of encounter records related to a mapping issue, where a \$0 TPL loop was selected instead of the valid TPL amount, causing certain encounters to incorrectly appear as \$0-pay. This only impacts encounter-level reporting and analytics—not claims adjudication, capitation payments, or financial settlements. A prospective mapping correction is underway to prevent recurrence, and

this issue should be resolved for CY 2026. The Department is reviewing TPL encounters to ensure the appropriate resolution to this issue.

Many behavioral health encounters—also submitted through the FFS system—are denied by the MCO, as indicated by \$0 payment and the 09 indicator. Some accepted encounters have a corresponding claim from the behavioral health administrative services organization, indicating duplicate payments for the same service. The Department is providing quarterly analysis of these duplicate payments to the MCOs and requiring proof of retracted payments made in error.

The auditor will continue to test CY 2024 denied and \$0 pay encounters and will apply adjustments for CY 2025. This testing will ensure that MCOs improve data quality, as the 2025 adjustments will modify base data by removing “appropriate” denials and \$0 pay from the HFMR costs.

Hilltop compared dates of service with MCO encounter submission dates and found that timeliness of encounter submissions demonstrated mixed performance during the evaluation period on the number of encounters submitted within six months. However, most encounters were submitted within 1 to 2 days, and there was a decrease in encounters submitted after six or more months. MCOs that submit encounters more than eight months after the date of service—the maximum time allotted for submission to the Department—should be flagged for improvement. Timely encounter data submission allows the Department to more closely monitor trends in expenditures and quality. The MCOs have shown a commitment to working with the Department and Hilltop to address issues with encounter data, whether through the Encounter Data Workgroup or through other means of stakeholder engagement.

Conclusion

HealthChoice is a managed care program designed to improve the access and quality of health care services for Maryland Medicaid participants. The analysis of the CY 2024 electronic encounter data shows a decrease in provider enrollment-related denied encounters. Although the changes in provider encounter edits still present challenges, the Department and the MCOs have continued to build on recent improvements.

The CY 2024 encounter data validation demonstrates progress in reducing denied encounters. The most concerning issue in CY 2024 encounter data is the ongoing volume of encounter denials from provider enrollment errors. The Department should continue to work with the MCOs to resolve their NPI Crosswalk and provider exceptions and enrollment issues, which will allow for more accurate rate setting in the future. Workgroup meetings with MCOs are ongoing for the CY 2025 contract, aiming to further refine which encounters should be excluded from the HFMR. In addition, “inappropriate denials” due to MMIS limitations are included in the HFMR. The Department will work with the MCOs to ensure that appropriately denied encounters will not be reported on the HFMR. In addition, some MCOs had unusually high volumes of \$0 encounters, which should also be excluded from the HFMR. In August 2025, the Department distributed files to each MCO detailing their CY 2024 \$0 reimbursement encounters submitted with and without a 09 indicator to help MCOs improve the quality of their encounter data. The

Department will continue to work with the MCOs to provide an explanation and ensure the accuracy of the provider reimbursement field with future submissions.

Generally, the MCOs have similar distributions of denials, types of encounters, types of visits, and outliers, except where specifically noted in the results. This analysis identified minor outliers that merit further monitoring and investigation, though the MCOs have improved. Hilltop prepared recipient-level reports for Department staff to discuss with the MCOs. The Department should review the content standards and criteria for accuracy and completeness with the MCOs. Continued work with each MCO to address identified discrepancies will improve the quality and integrity of encounter submissions and enhance the Department's ability to assess the efficiency and effectiveness of the Medicaid program.

Hilltop found that the volume of accepted encounters was generally consistent with MCO enrollment. Although the time dimension analysis showed variation among MCOs regarding the timeliness of encounter submissions, most encounters were submitted within the eight-month maximum time frame allotted by the Department. While the MCOs demonstrated mixed performance on the number of encounters submitted within six months, there was a decrease in encounters submitted after six months during the evaluation period. The Department should continue to work with MCOs to ensure the timeliness of encounter submissions, especially for MCOs with high rates of submissions occurring more than eight months after the end date of service.

References

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Appendix A. Reporting Instructions for the Final CY 2024 HealthChoice Financial Monitoring Report (HFMR) and Supplemental Financial Data Reports

Ineligible, Improper Costs Removal

An “Office of Legislative Audits” (OLA) report dated June 21, 2023, relayed three findings. One of those findings stated that ineligible, improper costs reported by the MCOs were included in HFMRs and therefore in capitation rate calculations. These ineligible costs included 1) denied claims (e.g., duplicates) and claims which were not the responsibility of the MCO, such as, 2) claims for carved out services (e.g., behavioral health) or for 3) incarcerated individuals.

Regarding denied claims the items below should be included in the HFMR.

1. Error/Exception Codes 437 (Procedure Not Covered For Date of Service), 430 (Procedure or Revenue Code Not on File) when paired with revenue code 810 or 948, and 986 (Duplicate NDC Code), 435 (Recipient Sex Not Valid for Procedure) when associated with gender-neutral CPTs 81479 (Unlisted Molecular Pathology) or 81400-81408 (Molecular Pathology Levels 1-9).
2. \$0 Pay Encounters, 05-Sub-capitated reporting indicators.
3. Claim amounts for encounters denied for ePREP-related reasons (i.e., related to provider enrollment defined as falling under error/exception codes 122, 412, 951, 961, 962, 963, 964, 965, 971, 975, 976).
4. A logic change is being made is to \$0 files. Hilltop will remove records from the \$0 Pay file we send to the MCOs and M&S, if they had a paid counterpart with payment > \$0 and the same recipient ID, provider ID, and dates of service.

Also, the instances below should not be considered duplicates and therefore should not be excluded as duplicates (i.e., they should be included in the HFMR).

1. Anesthesia codes billed for the same date of service by different providers with different modifiers (QZ nurse anesthetist without medical direction by physician, QY medical direction of nurse anesthetist by anesthesiologist, QX non-physician anesthetist with medical direction by physician, QK medical direction of concurrent anesthesia procedures).
2. Modifiers 76 (repeat procedure by same physician) and 77 (repeat procedure by another physician).
3. Modifier 59 is not meant to identify a repeat procedure, rather procedures not normally reported together but appropriate under the circumstances (per the MCS CPT Manual). This modifier is frequently billed by providers WITHOUT the provider billing a separate line that does NOT include the modifier; rejection of such encounters based on the use of modifier 59 is not appropriate.

The items below should be excluded from the HFMR.

1. All denied encounters, except for error codes listed above.
2. \$0 Pay Encounters, 09-Denied reporting indicators.
3. \$0 Pay Encounters with no indicator.

CY 2024 HFMRs will be audited to ensure that denied encounters and \$0 pay encounters are appropriately excluded from reporting as described above.

The accompanying HFMR certification form should be taken to apply to all of these ineligible costs as a verification that they have been excluded.

Encounter Submissions-Home Health (HH) & Skilled Nursing Facility (SNF) & Genetic Testing

If the error code is 435, "Sex Recip N/Vald F/Rept Proc," or 437, or 420, these claims should be submitted with all service lines even if it is known that they will fail. Getting a 420, 435, or 437 will demonstrate that they should be included in the HFMR. After failing, the MCO should resubmit just the service lines that will go through (i.e., strip out the offending lines).

Appendix B. CY 2024 HFMR Denied Encounter and Zero Pay Encounter Files

To: Aimee Dietsch
CC: Bryan O’Mara and Monchel Pridget
From: Jim Clavin, Todd Switzer, and Alice Middleton
Date: July 11, 2025
Re: CY 2024 HFMR Denied Encounter and Zero Pay Encounter Files

As part of the HFMR process for CY 2024, Hilltop will again be providing zero pay files and denied encounter files to the MCOs for review and feedback. The zero pay files and denied encounter data will be sent to Myers and Stauffer after a time period allowing for confirmation from the MCOs that the data are valid. Please review the information below and let us know if you have any questions.

- Hilltop will send zero pay files and—separately—denied encounter files to the MCOS by August 15, 2025
 - MCOs confirm receipt of files by August 22
 - MCOs provide any feedback by October 15
- Regarding the logic of the two sets of files:
 - The denied encounter files will use the same logic as developed by Hilltop in collaboration with the MCOs and the Department
 - The zero pay file logic will have one change based on MCO feedback:
 - Hilltop will remove records from the zero pay file if they had a paid counterpart with payment >\$0 and the same recipient ID, provider ID, and dates of service

The logic for the Denied Encounter File and Zero Pay File as of July 2025 is shown on the following page.

memorandum

Denied Encounters Data File

- Includes claim status = X (Denied)
- Does not include denied encounters that have a paid/accepted counterpart with the same RECIPNO, BEGDOS, REVCODE/PROCODE, PROV.
**PROV is used only if there is no provider-related error codes on the denied encounter.
- The data set does not include denied encounters:
 - That have an error code from the HFMR Exclusion list: 122, 412, 437, 951, 961, 962, 963, 964, 965, 971, 975, 976, 986
 - When exception code is 430 and revenue code is 810 or 948
 - When exception code is 435 and CPT 81479 or between 81400 to 81408

Zero Dollar Pay Encounters

- Hilltop AMT_PAY_BY_MCO = \$0
- MMIS field P3815534-AMT-PAID-BY-MCARE
- Claim Status = P (Paid)
- Begin dates of service 1/1/2024 – 12/31/2024
- PAID dates through 6/30/2025
- CN101 Segment (OVERRIDE_CODE)
 - Included:
 - 9 = Denied by MCO
 - Missing
 - Not included:
 - 5 = Sub-capitated
- If the \$0 pay record had a paid counterpart with non-\$0 with the same RECIPNO, BEGDOS, ENDOS, PROV in the calendar year, then the zero dollar pay record is not included in the data set.
- If the \$0 pay record has a denied counterpart (claim status = X) with the same RECIPNO, BEGDOS, ENDOS, PROV and different modifiers, then the zero dollar pay record is not included in the data set.

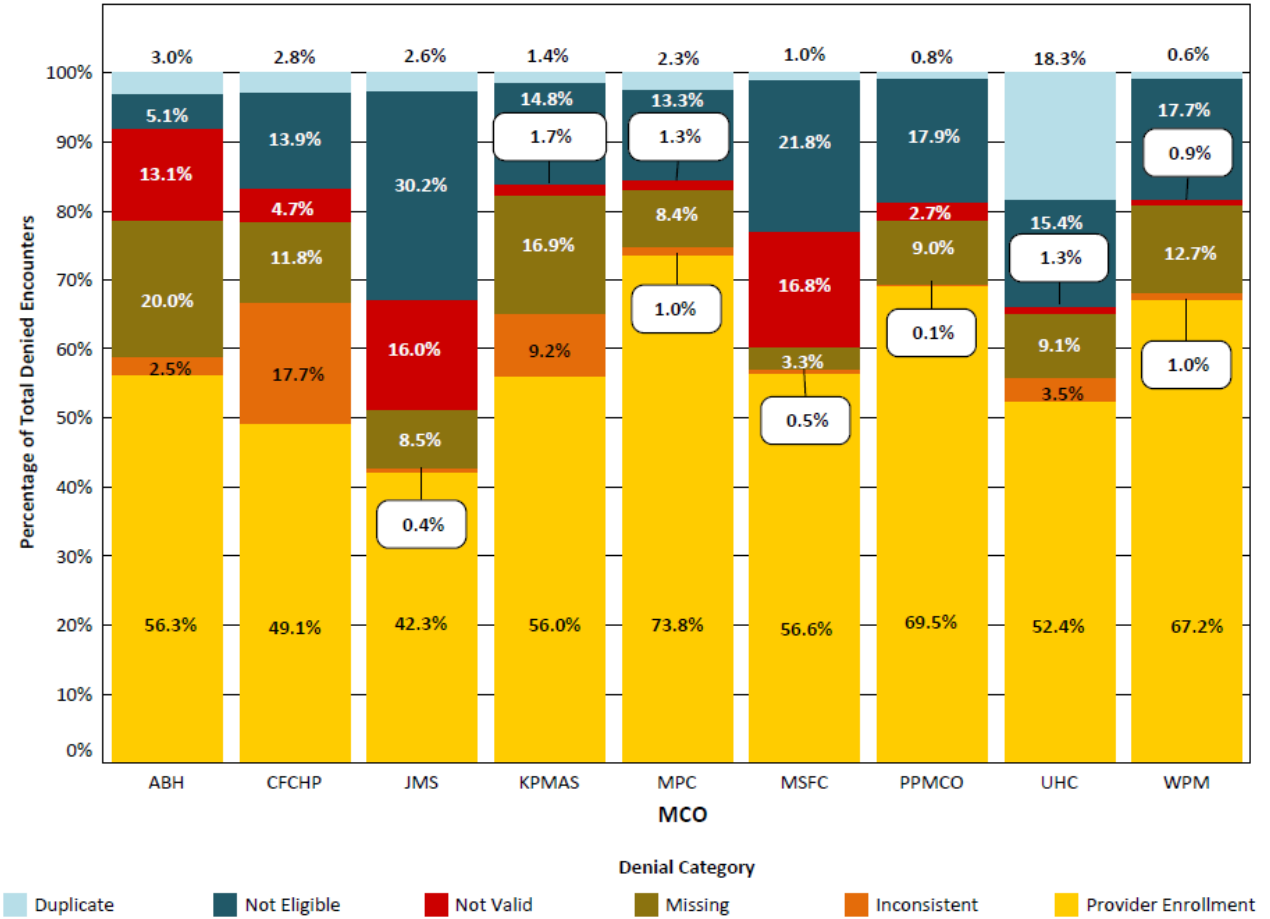
Appendix C. Denial Codes, Errors, by Category with Provider-Related and Other Denial Codes, CY 2024

Denial Type	Denial Category	Denial Code*	Error Description
Provider-related	Provider Enrollment	122	INVALID RENDERING PROV NUMBER
		412	REND PROV NOT ON FILE
		951	PROVIDER NUMBER NOT VALID
		961	PAY-TO/FAC PROVIDER SUSPENDED
		962	RENDERING PROVIDER SUSPENDED
		963	PAY-TO/FAC PROV NOT ACT DOS
		964	REND PROV NOT ACT ON DOS
		965	BILL/PAY2 PROV NPI <> MA ID
		971	NPI NUMBER INVLD FR PYTOPROV
		975	NPI#NFDONPROVFLFRENREFFACTLY
		976	REND PROV NPI NO MATCH FFS ID
	Not Valid	531	SVC/REND PROV# N/9 NUM DIGITS
950		SUB PROV NOT ON MASTER FILE	
Other	Duplicate	902	ORIG ICN FD ON HIST ALRD VOID
		986	NDC CODE IS DUPLICATE
	Inconsistent	113	ADMIT DATE AFTER 1ST DATE SER
		126	THRU DOS PRIOR TO BEGIN DOS
		182	PAT STAT CD DISCHRG DTE CNFLT
		190	FIRST SURG DOS W/IN SVC PERIOD
		290	ORIG ENC TP A/RES DN AGREE
		435	SEX RECIP N/VALD F/REPT PROC
		454	FIRST DIAGNOSIS AGE CONFLICT
		455	FIRST DIAGNOSIS SEX CONFLICT
		465	2ND DIAG SEX CONFLICT
		474	3RD DIAGNOSIS AGE CONFLICT
		485	4TH DIAGNOSIS SEX CONFLICT
		589	FRM DOS PRIOR TO RECIP DOB
		901	ORIG ICN N/FOUND ON HISTORY
		912	VD/RESB MCO# NOT EQL HISTORY
		913	VOID RESUBMIT RECPT NOT = HIST
	Missing	135	BILLING PROV NUM MISSING
		170	INV/MISS PLACE OF SERVICE
		172	INVLD OR MISS REV/HCPCS CODE
249		UNITS OF SERVICE EQUAL ZERO	
361		TOOTH # REQD FOR PROC IS MISS	
362		TOOTH SURF REQ F/PROC IS MISS	
970	NPI NUMBER IS MISSING		

Denial Type	Denial Category	Denial Code*	Error Description
		982	NDC MISSING OR NOT VALID
		985	NDC QUANTITY MISSING
	Not Eligible	250	RECPT NOT ON ELIGIBILITY FILE
		271	RECIP NOT ENRLD W/RPT MCO DOS
		437	PROC/REV CODE NOT COVD DOS
	Not Valid	124	FIRST DOS NOT STRUCTURED PROP
		129	RECPT NUMBER NOT 11 NUM DIGITS
		138	UB92 TYPE OF BILL INVALID
		144	LAST DOS AFTER BATCH PROC DATE
		167	ADMIT DATE NOT STRUCTURED PROP
		197	1ST SURG PROC DATE INVALID
		207	PATIENT DISCHARGE STATUS INVAL
		217	FACILITY NUMBER NOT VALID
		430	PROC/REV CODE NOT ON FILE
		450	FIRST DIAGNOSIS NOT ON FILE
		460	2ND DIAG NOT ON FILE
		470	3RD DIAG NOT ON FILE
		480	4TH DIAG NOT ON FILE
		550	FIRST PROC NOT ON FILE
		560	SECOND PROC NOT ON FILE
		600	CLAIM EXCEEDS 50 SERVICE LINES
		896	RELATED HISTORY REC MAX EXCEED
		900	VD/RESB RECD WOUT/ORIG ICN.
973	NPI/MA# NOT MATCHED IN MMIS		

* Explanation of benefits (EOB) error codes matching the last 3 of the ICN

Appendix D. Percentage of Encounters Denied by MMIS Denial Category, by MCO, CY 2024



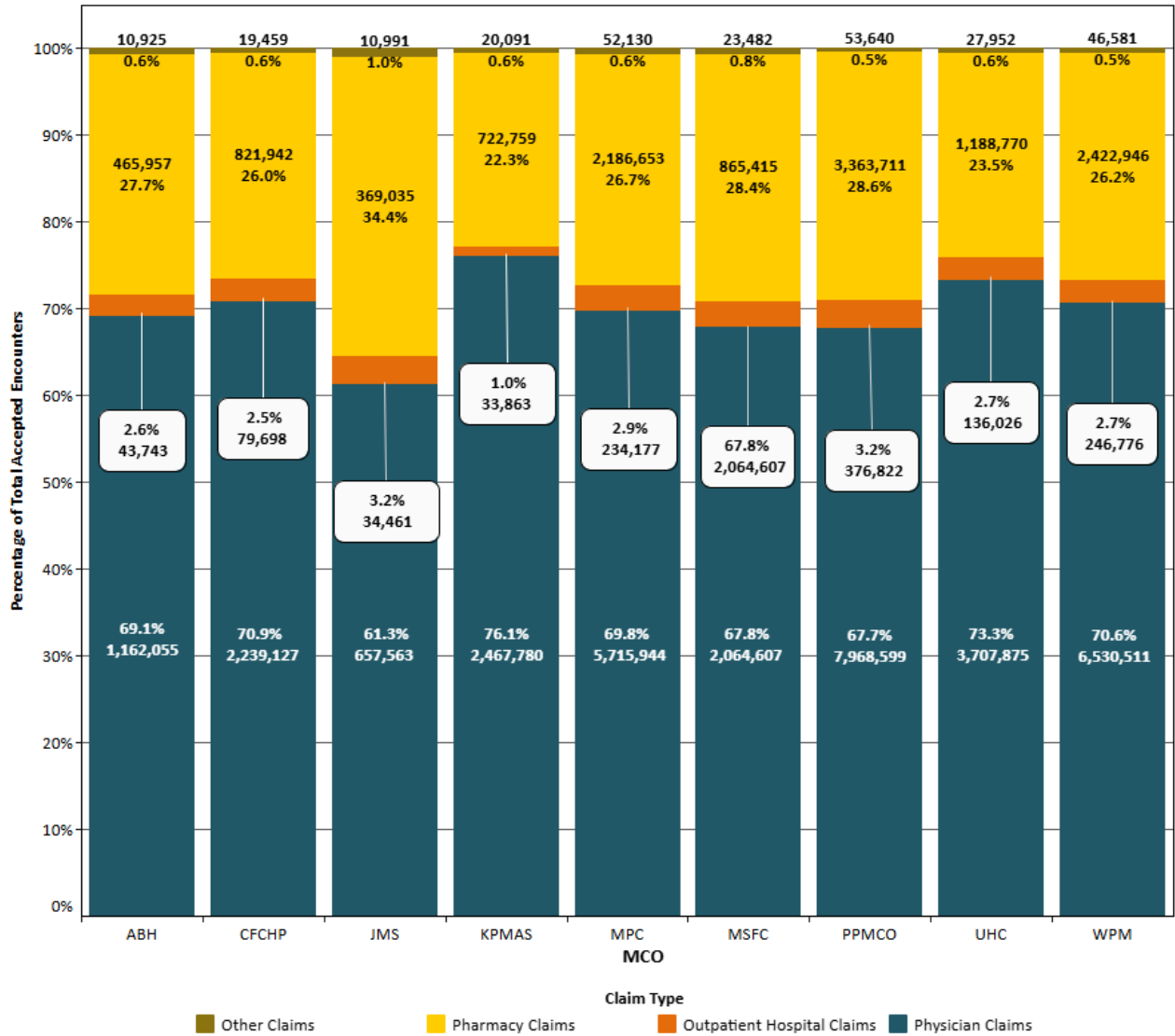
Appendix E. Top Three MMIS Denial Descriptions by Number of Denied Encounters by MCO, CY 2024

MCO	CY 2022			CY 2023			CY 2024		
	Denial Code**	Error Description	Denials	Denial Code**	Error Description	Denials	Denial Code**	Error Description	Denials
ABH	951*	PROVIDER NUMBER NOT VALID	20,227	951*	PROVIDER NUMBER NOT VALID	17,185	971*	NPI NUMBER INVLD FR PYTOPROV	6,221
	122*	INVALID RENDERING PROV NUMBER	14,422	971*	NPI NUMBER INVLD FR PYTOPROV	15,981	951*	PROVIDER NUMBER NOT VALID	5,831
	135	BILLING PROV NUM MISSING	13,144	135	BILLING PROV NUM MISSING	15,339	135	BILLING PROV NUM MISSING	5,340
CFCHP	122*	INVALID RENDERING PROV NUMBER	70,336	963*	PAY-TO/FAC PROV NOT ACT DOS	15,483	901	ORIG ICN N/FOUND ON HISTORY	57,818
	901	ORIG ICN N/FOUND ON HISTORY	62,413	951*	PROVIDER NUMBER NOT VALID	14,852	963*	PAY-TO/FAC PROV NOT ACT DOS	43,768
	951*	PROVIDER NUMBER NOT VALID	40,799	135	BILLING PROV NUM MISSING	10,297	951*	PROVIDER NUMBER NOT VALID	43,430
JMS	951*	PROVIDER NUMBER NOT VALID	73,311	271	RECIP NOT ENRLD W/RPT MCO DOS	7,315	271	RECIP NOT ENRLD W/RPT MCO DOS	4,560
	135	BILLING PROV NUM MISSING	72,728	951*	PROVIDER NUMBER NOT VALID	4,398	951*	PROVIDER NUMBER NOT VALID	2,069
	971*	NPI NUMBER INVLD FR PYTOPROV	72,713	437	PROC/REV CODE NOT COVD DOS	3,777	975*	NPI#NFDONPROVFLFRENREFFACTLY	1,556
KPMAS	951*	PROVIDER NUMBER NOT VALID	45,888	971*	NPI NUMBER INVLD FR PYTOPROV	35,222	951*	PROVIDER NUMBER NOT VALID	24,541
	971*	NPI NUMBER INVLD FR PYTOPROV	43,197	951*	PROVIDER NUMBER NOT VALID	34,596	135	BILLING PROV NUM MISSING	21,486
	135	BILLING PROV NUM MISSING	41,877	135	BILLING PROV NUM MISSING	33,992	971*	NPI NUMBER INVLD FR PYTOPROV	21,050
MPC	963*	PAY-TO/FAC PROV NOT ACT DOS	119,963	963*	PAY-TO/FAC PROV NOT ACT DOS	113,794	963*	PAY-TO/FAC PROV NOT ACT DOS	160,802
	951*	PROVIDER NUMBER NOT VALID	85,691	951*	PROVIDER NUMBER NOT VALID	78,369	271	RECIP NOT ENRLD W/RPT MCO DOS	71,572
	271	RECIP NOT ENRLD W/RPT MCO DOS	67,711	135	BILLING PROV NUM MISSING	66,895	961*	PAY-TO/FAC PROVIDER SUSPENDED	56,004
MSFC	963*	PAY-TO/FAC PROV NOT ACT DOS	20,532	129	RECPT NUMBER NOT 11 NUM DIGITS	72,328	122*	INVALID RENDERING PROV NUMBER	58,668
	951*	PROVIDER NUMBER NOT VALID	11,300	271	RECIP NOT ENRLD W/RPT MCO DOS	64,967	951*	PROVIDER NUMBER NOT VALID	54,277
	135	BILLING PROV NUM MISSING	6,398	951*	PROVIDER NUMBER NOT VALID	64,192	271	RECIP NOT ENRLD W/RPT MCO DOS	50,760
PPMCO	271	RECIP NOT ENRLD W/RPT MCO DOS	227,772	963*	PAY-TO/FAC PROV NOT ACT DOS	192,012	963*	PAY-TO/FAC PROV NOT ACT DOS	260,622
	951*	PROVIDER NUMBER NOT VALID	225,291	951*	PROVIDER NUMBER NOT VALID	183,527	271	RECIP NOT ENRLD W/RPT MCO DOS	128,391
	135	BILLING PROV NUM MISSING	159,157	135	BILLING PROV NUM MISSING	135,870	951*	PROVIDER NUMBER NOT VALID	109,528
UHC	951*	PROVIDER NUMBER NOT VALID	131,176	951*	PROVIDER NUMBER NOT VALID	59,159	902	ORIG ICN FD ON HIST ALRD VOID	67,109
	975*	NPI#NFDONPROVFLFRENREFFACTLY	86,177	963*	PAY-TO/FAC PROV NOT ACT DOS	38,732	271	RECIP NOT ENRLD W/RPT MCO DOS	53,060
	963*	PAY-TO/FAC PROV NOT ACT DOS	55,829	962*	RENDERING PROVIDER SUSPENDED	37,611	963*	PAY-TO/FAC PROV NOT ACT DOS	45,237
WPM	963*	PAY-TO/FAC PROV NOT ACT DOS	96,012	951*	PROVIDER NUMBER NOT VALID	66,543	271	RECIP NOT ENRLD W/RPT MCO DOS	86,098
	951*	PROVIDER NUMBER NOT VALID	62,768	971*	NPI NUMBER INVLD FR PYTOPROV	64,340	951*	PROVIDER NUMBER NOT VALID	73,866
	971*	NPI NUMBER INVLD FR PYTOPROV	48,722	135	BILLING PROV NUM MISSING	60,597	963*	PAY-TO/FAC PROV NOT ACT DOS	69,807

* Indicates a provider enrollment-related error code.

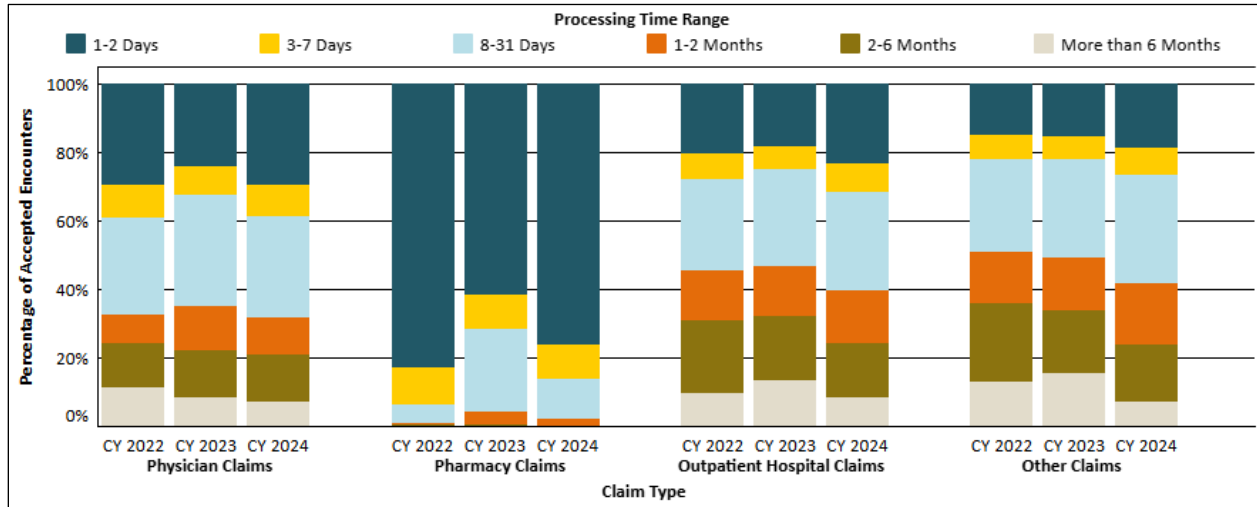
** Explanation of benefits (EOB) error codes matching the last 3 of the ICN

Appendix F. Number and Percentage of Accepted Encounters by Claim Type and MCO, CY 2024



Note: "Other Claims" is a combination of inpatient hospital claims, community-based services claims, and long-term care claims.

Appendix G. Percentage of the Total Number of Accepted Encounters Submitted by Claim Type and Processing Time, CY 2022–CY 2024



Processing Time Range	Physician Claims			Pharmacy Claims			Outpatient Hospital Claims			Other Claims		
	CY 2022	CY 2023	CY 2024	CY 2022	CY 2023	CY 2024	CY 2022	CY 2023	CY 2024	CY 2022	CY 2023	CY 2024
1-2 Days	29.4%	24.0%	29.6%	82.8%	61.6%	76.4%	20.3%	18.1%	23.2%	15.2%	15.5%	18.9%
	9,135,115	7,498,311	9,631,324	10,510,053	7,933,056	9,478,550	310,346	263,259	295,462	43,446	43,570	50,121
3-7 Days	9.9%	8.4%	9.3%	11.1%	10.2%	9.9%	7.7%	7.0%	8.5%	6.7%	6.7%	7.8%
	3,061,363	2,619,596	3,034,658	1,407,027	1,317,925	1,228,154	118,118	101,900	108,234	19,195	18,827	20,786
8-31 Days	28.4%	32.4%	29.2%	5.4%	24.1%	11.6%	26.7%	28.1%	28.8%	27.4%	28.5%	31.8%
	8,826,893	10,125,137	9,492,204	680,381	3,097,107	1,435,688	409,013	407,392	367,580	78,528	80,431	84,368
1-2 Months	8.3%	13.0%	11.0%	0.2%	3.7%	2.0%	14.6%	14.5%	15.4%	14.9%	15.5%	17.6%
	2,587,218	4,061,330	3,580,660	26,697	473,473	248,146	223,184	210,900	196,508	42,597	43,679	46,624
2-6 Months	12.7%	13.8%	13.6%	0.3%	0.2%	0.1%	21.1%	18.9%	16.0%	23.0%	18.5%	16.8%
	3,953,948	4,297,378	4,416,132	39,678	31,399	15,592	322,630	274,650	203,806	65,843	52,224	44,658
More than 6 Months	11.3%	8.4%	7.3%	0.2%	0.2%	0.0%	9.6%	13.4%	8.1%	12.7%	15.3%	7.0%
	3,496,201	2,629,467	2,359,076	25,526	20,447	1,058	147,328	193,995	103,697	36,472	43,261	18,694
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	31,060,738	31,231,219	32,514,054	12,689,362	12,873,407	12,407,188	1,530,619	1,452,096	1,275,287	286,081	281,992	265,251

Appendix H. Distribution of Accepted Encounters Submitted by MCO and Processing Time, CY 2024

Processing Time Range	ABH	CFCHP	JMS	KPMAS	MPC	MSFC	PPMCO	UHC	WPM	Total
1-2 Days	39.8%	47.7%	26.4%	45.3%	42.4%	35.0%	42.4%	33.4%	46.6%	41.9%
	669,916	1,507,796	283,256	1,468,148	3,472,877	1,066,478	4,982,419	1,692,763	4,311,804	19,455,457
3-7 Days	9.2%	8.9%	3.4%	10.2%	8.9%	7.4%	10.2%	9.4%	10.4%	9.5%
	155,500	281,046	36,856	331,345	725,964	226,443	1,196,590	477,293	960,795	4,391,832
8-31 Days	22.9%	18.3%	21.0%	21.3%	21.2%	28.5%	26.7%	31.1%	23.7%	24.5%
	384,530	578,139	225,132	691,119	1,733,966	866,887	3,139,011	1,571,837	2,189,219	11,379,840
1-2 Months	8.2%	9.8%	20.7%	5.2%	6.4%	13.4%	7.9%	12.0%	8.2%	8.8%
	138,034	308,657	222,417	168,795	527,448	408,945	933,499	605,841	758,302	4,071,938
2-6 Months	15.1%	11.4%	26.1%	8.4%	11.7%	10.6%	8.1%	10.9%	7.9%	10.1%
	254,837	361,154	280,152	272,565	955,430	321,522	949,495	550,629	734,404	4,680,188
6-7 Months	2.1%	0.9%	1.0%	1.8%	1.8%	1.0%	1.1%	1.0%	0.8%	1.2%
	34,925	28,021	10,599	57,969	148,308	30,140	124,191	52,443	75,483	562,079
7-12 Months	2.3%	2.4%	0.9%	5.8%	5.9%	3.1%	2.8%	1.9%	1.9%	3.2%
	39,350	75,231	9,634	187,557	485,551	93,467	325,301	98,346	175,307	1,489,744
More than 1 Year	0.3%	0.6%	0.4%	2.1%	1.7%	1.0%	1.0%	0.2%	0.4%	0.9%
	5,588	20,182	4,004	66,995	139,355	29,344	112,264	11,471	41,499	430,702
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	1,682,680	3,160,226	1,072,050	3,244,493	8,188,899	3,043,226	11,762,770	5,060,623	9,246,813	46,461,780

Appendix I. Delivery Codes

Delivery services were identified as any encounter that had one of the ICD-10 diagnosis codes listed in the table below during CY 2022 through CY 2024.

Code Type	Codes Used in Analysis
ICD-10 Diagnosis Codes	O60.1x, O60.2x, O61.x, O64.x, O65.x, O66.x, O67.x, O68*, O69.x, O70.x, O71.x, O72.x, O73.x, O74.x, O75.x, O76*, O77.x, O80*, O82*, Z37.x

*Only the three-character code listed in the table (e.g., O68, O76, and O80) was included as a valid diagnosis. For all other diagnosis codes, the analysis included all other codes that began with the diagnosis code listed in the table (e.g., O61.x), where x equals any number of digits after the decimal. For example, O61.x, the “x” can represent any number of digits after the decimal (e.g., O61.1 or O61.14) or no digits after the decimal (e.g., O61).

Appendix J. Dementia Codes

Dementia-related services in CY 2024 were identified as any encounter that had one of the ICD-10 diagnosis codes listed in the table below. These codes indicate services for Alzheimer’s disease and other types of dementia.

Code Type	Codes Used in Analysis
ICD-10 Diagnosis Codes*	F01, F02, F03, G30, G31**

* The three-character codes can include any number of alphanumeric characters after the decimal, such as F03.A.

** The ICD-10 Diagnosis code G31.84 has been removed.



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