Medicaid Managed Care Organization

Encounter Data Validation Report

Final Report

Calendar Year 2008

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HealthChoice and Acute Care Administration
Division of HealthChoice Management
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2008 HealthChoice Encounter Data Validation Medical Record Review Report

Introduction

The Medicaid Managed Care Provisions of the Balanced Budget Act of 1997 (BBA) directed the U.S. Department of Health and Human Services to develop protocols to serve as guidelines for conducting External Quality Review Organization (EQRO) activities. Beginning in 1995, the Centers for Medicare and Medicaid Services (CMS) began developing a series of tools to help State Medicaid agencies collect, validate, and use encounter data for managed care program management and oversight. The CMS approach to encounter data validation (EDV) includes the following three core activities:

- Assessment of health plan information system (IS).
- Analysis of health plan electronic encounter data for accuracy and completeness.
- Review of medical records for additional confirmation of findings.[1]

The EDV protocol also makes the following assumptions:

- An encounter refers to the electronic record of a service provided to a health plan enrollee by both institutional and non-institutional providers.
- The State specifies the types of encounters (e.g., physician, hospital, dental, vision, laboratory, etc.) for which encounter data are to be provided.
- Encounter data is considered "complete" when the data can be used to describe the majority of services that have been provided to Medicaid beneficiaries who are health plan enrollees.
- Encounter data completeness and accuracy requires continued monitoring and improvement. States need to develop encounter data standards and monitor for accuracy and completeness. Ultimately, it is the State that establishes standards for encounter data accuracy and completeness.

The EDV protocol consists of five sequential activities:

- Review of State requirements for collection and submission of encounter data.
- Review of health plan's capability to produce accurate and complete encounter data.
- Analysis of health plan's electronic encounter data for accuracy and completeness.
- Review of medical records for additional confirmation of findings.
- Analysis and submission of findings.

[1] Department of Health and Human Services, Centers for Medicare and Medicaid. Validating Encounter Data, A Protocol for use in Conducting Medicaid EQR Activities, May 2002.

In compliance with the BBA, Maryland's Department of Health and Mental Hygiene (DHMH) has contracted with Delmarva Foundation (Delmarva) to serve as the EQRO for the HealthChoice Program. Among the functions that Delmarva performs is the medical record review component for EDV. This report presents the findings for the CY 2008 EDV medical record review.

Medical Record Sampling

Delmarva received a random sample of HealthChoice encounter data for hospital inpatient, outpatient and physician office services that occurred in CY 2008 from The Hilltop Institute at University of Maryland, Baltimore County (UMBC). The sample size determined to achieve a 95% confidence interval was 385 medical records with an additional 20% over sample for a total of 462 medical records.

Table 1. CY 2008 EDV Sample Size by Encounter Type

Encounter Type	CY 2008 Encounters	Percent of Encounters	Sample Size
Hospital Inpatient	97,742	1.9%	8
Outpatient	791,801	15.6%	60
Office Visit	4,173,460	82.4%	317
Total	**5,063,003**	**100.0%**	**385**

With the approval of DHMH, Delmarva mailed two requests for medical records to the providers of service. After two mailings, non-responders were contacted by telephone and fax. Response rates by encounter type are outlined in Table 2. Review sample sizes were achieved for hospital inpatient and outpatient services. Eighty-five percent (85%) of the physician office visit sample was achieved.

Table 2. CY 2008 EDV Medical Record Response Rates by Encounter Type

Encounter Type	Total Records Received and Reviewed	Sample Size Achieved? Yes/No
Hospital Inpatient	8	Yes
Outpatient	61	Yes
Office Visit	271	No
Total	**340**	

Medical Record Review Procedure

Medical Record Validation

Medical record documentation for services provided from January 2008 through December 2008 was compared to the encounter data for the same time period. The medical record was validated as the correct medical record requested by verifying the patient date of birth and gender.

Encounter Data Validation

The medical record was reviewed to determine if the submitted encounter data (diagnosis, procedure, or revenue codes) could be validated against the findings in the medical record (see Table 3 for definition of terms). Where the diagnosis, procedure and revenue codes could be substantiated by the medical record, the review decision was "yes" or "a match." Conversely, if the medical record could not support the encounter data, the review decision was "no" or "no match". For inpatient encounters, the medical record reviewers also matched the principle diagnosis code to the primary sequenced diagnosis. The following reviewer guidelines were used to determine agreement or "match" between the encounter data and the medical record findings:

- As directed by the CMS Protocol, medical record reviewers could not infer a diagnosis from the medical record documentation. Reviewers were required to use the diagnosis listed by the provider. For example, if the provider recorded "fever and chills" in the medical record, and the diagnosis in the encounter data was "upper respiratory infection," the record did not match for diagnosis even if the medical record documentation would support the use of that diagnosis.
- For inpatient encounters with multiple diagnoses listed, the medical record reviewers were instructed to match the first listed diagnosis (as the principle diagnosis) with the primary diagnosis in the encounter data.
- Procedure data was matched to the medical record regardless of sequencing.

Table 3. EDV Definition of Terms

Term	Definition
Encounter	A unique date of service with coded diagnoses and procedures for a single provider or care/service provided on a unique date of service by the provider.
Review element	Specific element in the encounter data which is being compared to the medical record; elements in this review include, diagnosis, procedure, and revenue codes.
Match rate	Rate of correct record elements to the total elements presented as a percent.

CY 2008 EDV Results

After completing medical record reviewer training and achieving an inter-rater reliability score of greater than 95%, data from the medical record reviews were entered into the Delmarva EDV Tool/database. The analysis of the data was organized by review elements including diagnosis, procedure, and revenue codes. A total of 340 medical records were reviewed. The findings for the CY 2008 EDV are documented in Tables 4 through 7 below. Statewide, the overall element match rate (medical record review supporting the encounter data submitted) was 85.2%.

Table 4. CY 2008 EDV Findings by Encounter Type

Encounter Type	Records Received and Reviewed	Total Elements Possible*	Total Matched Elements	Percentage of Matched Elements
Inpatient	8	133	121	91.0%
Outpatient	61	460	361	78.5%
Office Visit	271	804	708	88.1%
TOTAL	340	1397	1190	85.2%

*Possible elements include: diagnosis, procedure, and revenue codes.

Inpatient encounter data match rate was 91% for the sample with 100% of the diagnosis and procedure codes matching. Provider office visit match rate was 88.1% followed by Outpatient encounters with a match rate of 78.5%.

Table 5. CY 2008 EDV Results by Element by Inpatient Encounter Type

	Diagnosis Codes	Procedure Codes	Revenue Codes	Total
Match	42	2	77	121
No Match	0	0	12	12
Total Elements	42	2	89	133

Inpatient diagnosis and procedure codes were matched 100% when compared to the content of the inpatient medical record. However, medical record documentation to support 12 of the 89 revenue codes was lacking.

Table 6. CY 2008 EDV Results by Element by **Outpatient** Encounter Type

	Diagnosis Codes	Procedure Codes	Revenue Codes	Total
Match	**122**	**101**	**138**	**361**
No Match	**18**	**37**	**44**	**99**
Total Elements	**140**	**138**	**182**	**460**

The match for outpatient encounters was 78.5% for all review elements. Owing to a lack of medical record documentation, outpatient encounter diagnosis codes were classified as "no match" for several emergency room records. Specifically, emergency room medical records reviewed were missing ancillary testing information or the results of ancillary testing. For example, because a radiology exam was not in the medical record, the emergency room diagnosis could not be matched.

Additionally, emergency room encounters included multiple emergency procedure codes particularly Current Procedural Terminology (CPT) codes 99281 (Emergency Services Limited or Minor Problem) and 99283 (Emergency Services Moderate Severity). Either one or the other code should have been used, but not both. These codes reflect not only the complexity of the treatment but also the time and difficulty of making a diagnosis. The choice of any code level is predicated on the proper documentation of the History, Exam, and Medical Decision Making. Provider documentation must include the correct number of elements, items, or systems required for proper charting.

Table 7. CY 2008 EDV Results by Element by **Physician Office** Encounter Type

	Diagnosis Codes	Procedure Codes	Revenue Codes	Total
Match	**481**	**227**	**NA**	**708**
No Match	**52**	**44**	**NA**	**96**
Total Elements	**533**	**271**	**NA**	**804**

The overall office visit encounters match rate was 88.1%, with diagnosis codes matching >90%. For several office visit encounters, procedure code CPT code 99213 was used. However the medical record documentation did not substantiate the use of the Evaluation and Management (EM) Code for an established patient with low-moderate severity for a 15 minute visit. The American Medical Association guidelines are very specific regarding the documentation that must be in the medical record including an expanded problem focused medical history and an expanded problem focused examination.

Table 8A. CY 2008 EDV "No Match" Results by Element by Encounter Type by Reason

"No Match" for Diagnosis Code Element	Total Elements	Lack of Medical Record Documentation	Incorrect Principle Diagnosis (inpatient) or Incorrect Diagnosis Codes	Record Illegible
Inpatient	0	0	0	0
Outpatient	18	8	10	0
Office Visit	52	42	7	3

Table 8B. CY 2008 EDV "No Match" Results by Element by Encounter Type by Reason

"No Match" for Procedure Code Element	Total Elements	Lack of Medical Record Documentation	Incorrect Procedure Code	Record Illegible
Inpatient	0	0	0	0
Outpatient	37	20	17	0
Office Visit	44	24	20	2

Table 8C. CY 2008 EDV "No Match" Results by Element by Encounter Type by Reason

"No Match" for Revenue Code Element	Total Elements	Lack of Medical Record Documentation	Incorrect Revenue Code	Record Illegible
Inpatient	12	10	2	0
Outpatient	44	23	21	0
Office Visit	N/A	N/A	N/A	N/A

Tables 8A through 8C illustrate the principle reason for match errors being a lack of medical record documentation.

Conclusions

Overall, encounters matched the medical records with a match rate of 85.2%, suggesting that the encounter data submitted is reasonable. Comparative performance data by other Medicaid programs nationally reveal match rates between 51% and 85%. The lack of medical record documentation to substantiate the encounter codes was the chief source of match error.

The findings of this medical record review should serve as a baseline for future EDV efforts. For future encounter data validations, the following lessons learned will be incorporated into the project:

- Instruct provider offices to supply all supporting documentation for the encounter date including separate face sheets, problem lists and labs as examples;
- Work with the contracted DHMH MCOs to verify the provider addresses prior to mailing record requests; and
- Increase the size of the over-sample.