Encounter Data Validation

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November 13, 2013

Encounter Data Validation

- The importance of accurate and complete encounter data can not be overstated, in view of the multiple uses of the data by the DOH. The usefulness of the data has grown over the years, as has its complexity in terms of collection, storage, and reporting. Periodic and timely auditing of the data is essential.

- Several approaches can be used to validate encounter data. Approaches include, but are not limited to:

    - Medical record validation

    - Creation of encounter data validation reports

    - Calculation of performance measures using encounter data

Encounter Data Validation

- **Medical Record Validation**
  - Encounters are compared to documentation in the medical record
    - Considered the gold standard approach; helps to identify areas of under, over and mis-reporting.
    - A drawback to using this approach: discrepancies can be observed due to either between the provider and the health plan, or the health plan and the state warehouse, or both. In order to determine the source of the errors, further drilldown is necessary.
    - There is mounting concern that variation in coding exists, especially in view of automated coding software and the use of EMRs. The literature that exists relates primarily to coding errors at provider and facility levels. Discrepancies in both over and under-coding have been observed; data from various studies indicates that physician accuracy in coding averages somewhere around 55%.

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Examples of medical record validation

- **Study #1 Primary Care Encounter Validation**
  - This study evaluated diagnosis and procedure coding, and focused on mis-coding
  - Coders reviewed whether the data submitted to MEDS matched the information in the medical records
  - The encounter data sample was stratified into 3 categories; primary care (30 encounters), behavioral health (15 encounters), and cardiology (15 encounters). Sixty (60) encounters across 6 health plans; plus a small oversample to compensate for unavailable medical records . The final sample consisted of 345 encounters.

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- **Study 1: Primary Care Encounter Validation (continued)**

    - Results (diagnosis coding): 31.6% of the records had a complete diagnosis match, 66.1% of the records contained one or more errors (e.g. at least one diagnosis deleted by an IPRO reviewer, at least one added, at least one code changed, etc), 2.3% of the records had a match at the three digit level (close match).

    - Results (procedure coding): 60.4% of the records had a complete procedure code match, 39.6% of the records contained one or more errors (e.g. at least one procedure deleted by an IPRO reviewer, at least one added, at least one changed, etc)

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- **Study 2: Primary care encounter validation**

  - Identified under-reporting, over-reporting, and mis-reporting of encounter data

  - Compared diagnosis and procedure code data in enrollee medical records with corresponding encounter data for 60 randomly selected Medicaid managed care enrollees for each of 29 plans

  - Sample was stratified into 2 groups;

    - No Encounter Group: 25 plan members for whom there was no record of an encounter with a primary care provider in MEDS during the study period

    - Primary Care Group: 35 members who had up to 3 primary care encounters during the study period

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- **Study 2: Primary care encounter validation (continued)**

  - Results /Findings

    - One fifth (20.3%) of the No Encounter group had at least one visit reported in a medical record but no encounter in MEDS. Note: the No Encounter group represented only 4.1% of the total Medicaid managed care population

    - 72.3% of Primary Diagnosis coding and 70.1% of Primary Procedure coding in MEDS is complete and accurate when compared to information contained in the medical records.

    - There was a high rate of underreporting of secondary diagnosis (65.5%) and additional diagnosis (85%) coding in MEDS.

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- **Encounter Data Validation reports**
  - Edit checking, volume monitoring and reconciliation reports to monitor the encounter data that is reported. Using the results of the reports, IPRO can identify problem areas, e.g. missing/under-reporting of vendor data, problems in interpreting the data dictionary, etc.

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- ## Encounter Data Validation Reports

IPRO Managed Care Department - MMIS Encounters

Intake Report By Encounter Date*
Record Count (Includes all claims lines)

.			Month/Year Encounter Submitted to	
Type	**Average # Encounters**	**SEP2013**	**AUG2013**	**JUL2013**
Inpatient	183,247	206,473	147,109	171,137
Inpatient XOver	35,911	39,726	35,147	57,905
Outpatient	879,560	1,368,977	1,139,319	498,295
Outpatient XOver	175,742	245,039	213,975	119,639
Professional	1,630,023	2,462,157	1,721,324	1,011,489
Professional XOver	287,659	236,927	548,588	255,807
Long Term Care	333	1,650	166	112
Home Health Care	14,326	12,692	12,699	5,898
Total	**3,206,800**	**4,573,641**	**3,818,327**	**2,120,282**
Dental	187,637	249,862	199,271	118,075
Pharmacy	1,269,559	1,215,270	1,425,420	1,347,672
Total Encounters	**4,663,996**	**6,038,773**	**5,443,018**	**3,586,029**
Members	719,147	699,199	712,111	715,626

* Encounter date is the Month and year the encounters are being submitted to MMIS.
NOTE: Includes all encounters submitted from DSS to IPRO.
Includes paid, denied, adjusted and void encounters.

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- ## Encounter Data Validation Reports

MMIS Encounter Validation Table
Encounter Detail File
Dental Encounters

File Encounter Dates: September 1, 2013 to September 30, 2013

Record Count (Includes all encounter record lines): 249,862

Variable Name	# Missing	% Missing	# Invalid Data	% Invalid Data
Billing Provider Key	0	0.00%	N/A	N/A
Category of Service	0	0.00%	N/A	N/A
Claim Adj Reason	40,761	16.30%	N/A	N/A
Claim Adj Void	0	0.00%	0	0.00%
Claim Detail Status	0	0.00%	0	0.00%
First Date of Service	0	0.00%	57	0.00%
ICN Number	0	0.00%	N/A	N/A
Last Date of Service	0	0.00%	50	0.00%
Place of Service	0	0.00%	N/A	N/A
Performing Provider Key	249,862	100.00%	N/A	N/A
Procedure Code	1	0.00%	0	0.00%
Recipient County	1,255	0.50%	N/A	N/A
Recipient Medicaid ID	52	0.00%	0	0.00%
Recipient Ethnicity	52	0.00%	N/A	N/A
Recipient Race	52	0.00%	N/A	N/A
Referring Provider Key	249,862	100.00%	N/A	N/A
Submitter ID	0	0.00%	0	0.00%
Tooth Number	181,998	72.80%	N/A	N/A

NOTE: Includes all encounters submitted to IPRO.
Includes paid, denied, adjusted and void encounters

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- **Calculation of Performance Measures**
  - Using encounter data that the health plan reports, IPRO can write source code to calculate measures that the plan is required to report. Replicating this process will indicate whether the data warehouse is sufficiently robust to produce the same result as produced by the plan.

For more information

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