Commonwealth of Pennsylvania
Department of Public Welfare
Office of Mental Health and Substance Abuse Services

2016 Encounter Data Onsite
Performance Measure Review

Community Behavioral Health

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Introduction

HealthChoices Behavioral Health (BH) is the mandatory managed care program which provides Medical Assistance recipients with BH services in the Commonwealth of Pennsylvania (PA). The PA Department of Human Services (DHS) Office of Mental Health and Substance Abuse Services (OMHSAS) contracted with IPRO as its external quality review organization (EQRO) to conduct the 2016 Encounter Data Validation (EDV) onsite reviews for the HealthChoices BH managed care organizations (BH-MCOs).

Encounter data validation is an ongoing process, involving the MCOs, the state encounter data unit and the EQRO. It includes both a baseline evaluation and ongoing monitoring of submission patterns. The purpose of this monitoring is to identify and resolve issues that arise in the encounter data submission process. In 2013, BH-MCO onsite reviews were conducted as a baseline evaluation of the BH-MCO encounter data units. In the third quarter of 2016 and the first and second quarters of 2017, BH-MCO's onsite visits and calls were conducted as a part of the ongoing monitoring of submission of encounter data to the DHS's claim processing and management information system, Provider Reimbursement and Operations Management Information System (in electronic format; PROMISe).

Since 2005, on a weekly basis, IPRO receives encounter data extracts from PROMISe and loads the files to IPRO's Statistical Analysis Software (SAS) data warehouse (DW). For physical health (PH) encounter data, IPRO loads the PROMISe paid/accepted dental, professional, institutional and pharmacy extracts (**Table 1**). For BH encounter data, IPRO loads the PROMISe paid/accepted professional and institutional data extracts to its DW. Since January 1, 2012, IPRO also loads the PROMISe denied BH encounter data to its DW. As the weekly PH and BH encounter data extracts are loaded into IPRO's DW, IPRO conducts checks on the data elements and volumes received (**Table 1**).

Table 1: Physical and Behavioral Health Encounter Data Volume

Encounter Type	Claim Volume
Physical Health[1]	
Institutional	62,622,327
Professional	208,985,522
Dental	9,586,305
Pharmacy	368,870,836
Behavioral Health[1]	
Institutional	1,593,010
Professional	183,497,799

[1] Claim header volume stored in IPRO's data warehouse as of 1/23/2017.

In addition, on a quarterly basis, IPRO receives the PH and BH eligibility slice files from DHS and loads them into IPRO's SAS DW. The BH eligibility slice file typically contains demographic and eligibility information about members, such as date of birth, county, gender, race, ethnicity, recipient ID#, assistance/aid categories, effective and expiration dates.

On a monthly basis, IPRO attends the Encounter Action Team (EAT) technical meetings with DHS, DXC Technology (formerly known as HP), which provides technical discussions on encounter data submission issues, change orders and defect statuses. On a monthly basis, IPRO also attends the technical PROMISe call with DXC Technology, Office of Medical Assistance Programs (OMAP), Mercer and the PH MCOs to discuss encounter data submission status and issues regarding the PH encounter data submissions. IPRO also participates on weekly PH calls with DHS and bi-weekly calls with OMHSAS to discuss BH encounter data validation activities.

The BH-MCOs were requested to complete and return the ISCA tool to IPRO prior to the EDV onsite visit. IPRO modified the 5/1/2002 version 1.0 ISCA found in CMS's appendix section of the External Quality Review Activity Protocol. IPRO tailored the questions for the BH-MCO, DHS and PROMISe submission process. IPRO also included a section on the BH-MCOs annual performance measure (PM) development activities and processes. The purpose of the assessment was to specify the capabilities of the BH-MCO's information systems (IS) and to pose standard questions to be used to assess the strengths of the BH-MCO with respect to these capabilities. The ISCA assisted IPRO to assess the extent to which the

BH-MCO's IS is capable of producing valid encounter data, PM member-level data, tracking PROMISe encounter data submissions and other data necessary to support quality assessment and improvement and PM improvement programs.

The ISCA completion was followed by an encounter data onsite visit or a 4-hour webinar. IPRO conducted a one-day onsite review of CBH. The purpose of the onsite visits/webinar was:

1. to be able to review the ISCA findings with the appropriate BH-MCO staff, and discuss any outstanding questions regarding the BH-MCO's ISCA responses;
2. to review the BH-MCO's production enrollment, claim/encounter, and PROMISe submission and PM development processes; and
3. to view member and claim examples selected from the 2016 BH Performance Measure HEDIS Follow-up After Hospitalization for Mental Illness (FUH) member-level data files submitted on the BH-MCO's system screens.

OMHSAS required the BH-MCOs to submit the following 2016 Annual Performance Measures for measurement year 2015:

- Follow-up After Hospitalization for Mental Illness (FUH) PM. This 2016 BH PM assesses the percentage of discharges for members six years of age and older who were hospitalized for treatment of selected mental health disorders, who were seen on an ambulatory basis or who were in day/night treatment with a mental health provider on the date of discharge up to seven, and 30 days after hospital discharge. BH-MCOs are required to submit data files and source code to IPRO. For this measure two separate versions are requested: HEDIS specifications and PA-specific specifications.
- Readmission Within 30 Days of Inpatient Psychiatric Discharge (REA) PM. This 2016 BH PM assessed the percentage of discharges for enrollees from inpatient acute psychiatric care that were subsequently followed by an inpatient acute psychiatric care readmission within seven, and 30 days of the previous discharge. BH-MCOs are required to submit data files and source code to IPRO.

General Information

Community Behavioral Health (CBH) has participated in the BH HealthChoices contract since 1997. In 2016, CBH continued to service one county for the HealthChoices product line, Philadelphia. Their average enrollment in 2015 was 520,970 members (**Table 2**).

As of the last CBH EDV onsite visit on July 11, 2013, CBH has undergone a major system conversion. CBH was in the process of retiring BRAHMS, their claims adjudication system, and implementing a new claims processing system, XeoHealth XeoRules® Solution. XeoRules is a software package offered by XeoHealth for claims processing. As of October 1, 2015, XeoRules began to process claims electronically. BRAHMS was being used to adjudicate third party liability (TPL) and paper claims (approximately 3% of the total claim volume). As of September 1, 2016, XeoRules began adjudicating TPL claims received electronically, but currently only one provider has the capability to submit TPL claims electronically. Since October 1, 2015, XeoRules has processed all CBH electronic claims. BRAHMS continues to exist in a "read only" mode to allow historical views of electronic claims. In regards to non-electronic claims, BRAHMS is processing the TPL and out-of-network provider claims that are received on paper.

The 2016 EDV onsite visit was held in CBH's offices in Philadelphia, PA on December 12, 2016. OMHSAS and IPRO attended the onsite visit. CBH and CBH contractors, Allan Collautt Associates, Inc. (ACA) and XeoHealth also attended the onsite visit.

ACA MASTRR™ Monitor application, MASTRR Sync eligibility database and XeoRules for claims processing were reviewed during the onsite visit. As of the onsite visit date, the electronic claims implementation in XeoRules was complete and the paper claims implementation was in process. The entry of TPL claims into XeoRules began in September 2016 and is expected to be completed by December 31, 2017.

Table 2 lists the PA BH counties where CBH enrolled members during 2015 and the average monthly number of HealthChoices members enrolled for the period from January 1, 2015 to December 31, 2015:

Table 2: Average Monthly HealthChoices Enrollment by County

BH-MCO County Name	Average Monthly Enrollment in 2015
Philadelphia	520,970

BH: behavioral health; MCO: managed care organization.

During the EDV onsite visit, CBH demonstrated their transactional systems for claims processing and enrollment maintenance.

Performance Measure Development

CBH uses their membership and claims Structured Query Language (SQL) server databases to produce the annual FUH and REA PMs. CBH develops the PM source code using Transact-SQL, stored procedures, and a SQL Server Integration Services (SSIS). CBH's data reporting repository includes MCO-paid claims. For the development of the PMs, CBH incorporates and extracts MCO-denied claims directly from XeoRules.

CBH utilizes a relational database to calculate the PMs. The enrollment data tables are refreshed daily with a feed of eligibility information from the MASTRR Monitor application. The claim tables are refreshed weekly. CBH validates the reporting database to ensure completeness. The procedure, revenue, International Classification of Diseases (ICD)-9-clinical modification (CM) and ICD-10-CM diagnosis codes submitted by the provider are used for the PMs.

For inpatient psychiatric services, the paid and qualifying denied claims are extracted based on CBH's authorizations. For the PMs, the discharge episodes are based on dates included on the authorization. CBH does not use the discharge date submitted by the provider on the claim.

CBH uses an SSIS package to process the data and generate the datasets required for the PM reports. CBH has a documented procedure for updating the PM source code on an annual basis. The annual update process includes: reviewing the updated PM requirements, identifying any necessary changes to the logic or code sets; implementing the necessary modifications; testing and debugging the modifications; documenting the modifications made; running the programs to produce the reports; and logging the execution information into a table. The reporting code is tested based on the algorithm and flow charts of the methodologies in the PM specifications. The reports and data files are reviewed by a supervisory staff and the results are approved and the data files and source code are sent to IPRO for validation. During the EDV onsite visit, CBH's programmer responsible for the development of the PM source code, walked IPRO through the source code and explained the process for updating the source code and testing the logic.

During the EDV onsite visit, CBH indicated that the UB type of bill codes found in Table 1.4 of the 2016 FUH PM specifications do not include valid codes found in their claim system. FUH Table 1.4 includes UB type of bill codes included in the HEDIS 2016 FUH measure specifications and Nonacute Inpatient Stay value set. CBH does not utilize the UB type of bill codes to identify non-acute inpatient stays, CBH uses the revenue codes found in Table 1.4 of the specifications to identify non-acute inpatient stays to exclude.

As part of EDV, IPRO compared the 2016 FUH PM member-level data to the BH paid/accepted PROMISe DW tables maintained by IPRO. IPRO also compared the enrollment information of the members included on the 2016 FUH PM member-level file to IPRO's BH eligibility DW.

Enrollment

Prior to the EDV onsite, IPRO compared the members included in the 2016 FUH PM member-level data file to IPRO's BH Eligibility data. IPRO utilized the enrollment data to verify and flag any member that was not enrolled with CBH on the discharge date or were enrolled with a different BH-MCO on the discharge date. The following data elements were reviewed during the EDV onsite on CBH's enrollment system for the three members: Recipient ID, date of birth, last and first name and enrollment and disenrollment dates for 2015. There were 5,523 internal control numbers (ICNs) submitted and accepted to PROMISe (**Table 3**). Of these, 5,520 (99.95%) were enrolled with BH-MCO on discharge date, none were enrolled with another BH-MCO, and 3 (0.05%) were not enrolled in HealthChoices at discharge date.

IPRO identified three member records with discrepancies to review during the onsite review (**Table 3**). The following observations were made during the EDV onsite review of the three member records:

- Member last and first name: IPRO was not able to confirm member last and first name in IPRO's DW, since the information is not available in the quarterly BH Eligibility Slice File. The name on the 2016 FUH PM member-level data file matched the name in CBH's enrollment system for all three records.
- Date of birth: IPRO was able to confirm that the date of birth on CBH's enrollment system matched the date of birth on IPRO's BH Eligibility DW for all three members.
- Enrollment history:

- For one member, the effective and expiration dates from CBH's enrollment system matched BH Eligibility Slice File.
- For two members, the enrollment history from the BH Eligibility Slice File indicated a gap in coverage, yet there was no gap in coverage on CBH's enrollment system. However, the effective and expiration dates found in CBH's enrollment system matched the DHS CIS system enrollment dates. Based on IPRO's experience the earliest enrollment date discrepancies are due to retroactivity and timing issues with the receipt of the BH Eligibility Slice File.
- For all three members, the expiration date on CBH's enrollment system matched the expiration date on the BH Eligibility Slice File.

Table 3: Enrollment Denominator Comparison to the BH Eligibility Slice File

Denominator Type	Formula Description	Number or Percent of Members
BH-MCO PM denominator	M1	7,224
BH-MCO ICN submitted and accepted in PROMISe	PD3	5,523
BH Eligibility Slice File		
Enrolled with BH-MCO on discharge date	E1	5,520
Enrolled with other BH-MCO on discharge date	E2	0
Not enrolled in HealthChoices on discharge date	E3	3
Total	E1 + E2 + E3 = DA	5,523
Percent of PROMISe submitted and accepted ICNs with member enrolled with BH-MCO	E1/DA	99.95%
Percent of PROMISe submitted and accepted ICNs with member **not** enrolled with BH-MCO	(E2 + E3)/DA	0.05%

BH: behavioral health; MCO: managed care organization; PROMISe: Provider Reimbursement and Operations Management Information System (in electronic format); ICN: internal control number.

Prior to the EDV onsite visit, IPRO also identified 17 members found on the 2016 FUH PM member-level data file whose recipient identification number did not match the recipient identification number received by IPRO on the PROMISe institutional encounters. IPRO selected two of the 17 member records to review and verify member enrollment data during the onsite review. During the EDV onsite visit, it was identified that the change in recipient identification number was associated with adoption for the two member records. The two children's recipient identification numbers were changed by CBH in their enrollment system after the daily 834 eligibility files reflected the adoption. CBH's enrollment system retains the original recipient identification number, the historical enrollment and claims data for the member and links the two enrollment records.

PM FUH Denominator Comparison

Prior to the EDV onsite visit, IPRO compared the denominator PROMISe ICNs included in the 2016 FUH PM member-level data file to IPRO's BH PROMISe institutional DW. IPRO identified PROMISe ICN records with discrepancies to review during the EDV onsite visit. The following data elements were reviewed during the onsite visit on CBH's claim system: recipient ID, admission and discharge dates, dates of service, diagnosis codes, revenue codes, UB type of bill code, hospital/provider ID number, place of service (POS), patient discharge status codes.

Appendix A presents the 2016 PM FUH denominator comparison. IPRO selected a sample of three PROMISe ICNs from the PM FUH denominator comparison report to review during the EDV onsite visit on CBH's claim system. The three FUH denominator PROMISe ICNs were found on the paid/accepted PROMISe institutional inpatient extract.

The following discrepancies were noted between the 2016 FUH PM member-level data and IPRO's BH PROMISe paid/accepted DW during the review:

- Discharge Date: for one of the three FUH denominator PROMISe ICNs, the discharge date did not match between the CBH's claim system and the encounter submitted to PROMISe. It was identified that the discrepancy was

attributed to CBH utilizing the authorization end date instead of the claim's discharge date in their source code logic used to develop on the FUH member-level data file.

- UB Type of Bill: for all three FUH denominator PROMISe ICNs, the UB type of bill did not match the value found on CBH's claim system. It was identified that CBH is not populating any values for the UB type of bill on the FUH member-level data file submitted to IPRO.
- Hospital/Provider ID#: for all three FUH denominator PROMISe ICNs, the Hospital/Provider ID# did not match the value on CBH's claim system. It was identified that CBH is not populating any values for the Hospital/Provider ID# on the FUH member-level data file submitted to IPRO.
- Diagnosis Codes: for all three of the FUH denominator PROMISe ICNs, the PROMISe extract only included the first two diagnosis codes found on CBH's claim system. CBH indicated for encounters with pay dates on or before September 30, 2015, CBH submitted to PROMISe up to two diagnosis codes. CBH confirmed that for encounters submitted to PROMISe with a pay date on or after October 1, 2015, CBH submitted all secondary diagnosis codes found on the claim.

Numerator Comparison

Prior to the EDV onsite review, IPRO compared the numerator PROMISe ICNs included in the 2016 FUH PM member-level data file to IPRO's BH PROMISe professional DW. IPRO identified PROMISe ICN records with discrepancies to review during the EDV onsite visit. The following data elements were reviewed during the onsite on CBH's claim system: Recipient ID, dates of service, diagnosis codes, hospital/provider ID number, POS and Current Procedural Terminology (CPT) codes.

Appendix B presents the 2016 PM FUH numerator comparison. IPRO selected a sample of two PROMISe ICNs from the PM FUH numerator comparison report to review during the EDV onsite on CBH's claim system. The two FUH numerator PROMISe ICNs were found on the paid/accepted PROMISe professional extract.

The following discrepancies were noted between the 2016 FUH PM member-level data and IPRO's BH PROMISe paid/accepted DW during the review:

- POS: for one of the two FUH numerator PROMISe ICNs, the outpatient POS code did not match the value on CBH's claim system. CBH indicated that the discrepancy was attributed to CBH's mapping of the POS code to align with the BHSRCC grid prior to PROMISe submission.
- Hospital/Provider ID#: for the two FUH numerator PROMISe ICNs, the hospital/provider ID# did not match the value on CBH's claim system. It was identified that CBH is not populating any values for the hospital/provider ID# on the FUH member-level data file submitted to IPRO.

Strengths and Opportunities for Improvement

The review of CBH's data systems, source code and quality assurance processes with regards to the 2016 PM development identified the following process strengths and opportunities for improvement:

Strengths

- CBH staff is knowledgeable and understands the HealthChoices product, business needs and the PM process.
- CBH programmers utilize appropriate version controls for source code. The reporting code is tested based on algorithm and flow charts of the methodologies as per specifications. The results are subsequently reviewed by a supervisor before submission.

Opportunities for Improvement

- CBH uses the authorization end date in their source code logic to identify the claim's discharge date used in the development of the PM member-level data files. By utilizing the authorization date for calculation of the PMs, only the covered or paid days are included and not the actual inpatient stay days. IPRO recommends CBH utilize the actual discharge date from the claim instead of the authorization end date.
- For the 2016 PM FUH member-level data file it was identified that CBH is not populating any values for the UB Type of bill or the denominator and numerator hospital/provider ID#. IPRO recommends that CBH populates all the information on the member-level data files.
- CBH imports the MCO-paid claims into their data reporting repository. For the development of the BH PMs, CBH extracts the MCO-denied claims directly from XeoRules. CBH will benefit from incorporating the MCO-denied claims into the data repository for the development of the BH PMs.
- It is recommended that CBH communicates to IPRO any issues that arise while developing the FUH PM measure. CBH and IPRO can then work together to enhance specifications to pull in appropriate services.

Corrective Action Needed

- Since CBH is currently processing paper TPL and out-of-network provider claims in BRAHMS, it is recommended that CBH documents for OMHSAS the BH-MCO's process of incorporating the BRAHMS MCO-paid and MCO-denied claims into the development of the three 2017 BH PMs.

Appendix A: 2016 FUH PM Denominator Comparison to PROMISe

Table A1: 2016 FUH PM Denominator Comparison to PROMISe

Denominator Type	Formula Description	Number or Percent of Members
BH-MCO PM denominator	M1	7,224
BH-MCO ICN submitted and accepted in PROMISe	PD3	5,523
BH-MCO PM PROMISe denominator ICN submitted and PROMISe accepted, matched to PROMISe DW	DA2	5,523
BH-MCO recipient ID matches PROMISe	DM1	5,506
Percent of BH-MCO recipient ID matches PROMISe	DM1/DA2	99.7%
BH-MCO hospital/provider ID matches PROMISe	DM2	6
Percent of BH-MCO hospital/provider ID matches PROMISe	DM2/DA2	0.1%
BH-MCO admission date matches PROMISe	DM3	4,925
Percent of BH-MCO admission date matches PROMISe	DM3/DA2	89.2%
BH-MCO discharge date matches PROMISe	DM4	1,713
Percent of BH-MCO discharge date matches PROMISe	DM4/DA2	31.0%
BH-MCO discharge status code matches PROMISe	DM8	5,055
Percent of BH-MCO discharge status code matches PROMISe	DM8/DA2	91.5%

FUH: Follow-up After Hospitalization for Mental Illness; PM: performance measure; PROMISe: Provider Reimbursement and Operations Management Information System (in electronic format); BH: behavioral health; MCO: managed care organization; ICN: internal control number; DW: data warehouse.

Appendix B: 2016 FUH PM Numerator Comparison to PROMISe

Table B1: 2016 FUH PM Numerator Comparison to PROMISe

Numerator Type	Formula Description	Number or Percent of Members
BH-MCO PM numerator	M2	4,870
BH-MCO ICN submitted and accepted in PROMISe	PD3	5,523
BH-MCO PM PROMISe numerator ICN submitted and PROMISe accepted, matched to PROMISe DW	NA2	3,820
BH-MCO provider ID matches PROMISe	NM1	0
Percent of BH-MCO recipient ID matches PROMISe	NM1/NA2	0.0%
BH-MCO provider type matches PROMISe	NM2	3,819
Percent of BH-MCO provider type matches PROMISe	NM2/NA2	100.0%
BH-MCO POS matches PROMISe	NM3	3,239
Percent of BH-MCO POS matches PROMISe	NM3/NA2	84.8%
BH-MCO service date matches PROMISe	NM4	3,710
Percent of BH-MCO service date matches PROMISe	NM4/NA2	97.1%
BH-MCO primary diagnosis matches PROMISe	NM5	3,820
Percent of BH-MCO primary diagnosis matches PROMISe	NM5/NA2	100.0%
BH-MCO CPT/HCPCS/revenue code matches PROMISe	NM6	3,820
Percent of BH-MCO CPT/HCPCS/revenue code matches PROMISe	NM6/NA2	100.0%

FUH: Follow-up After Hospitalization for Mental Illness; PM: performance measure; PROMISe: Provider Reimbursement and Operations Management Information System (in electronic format); BH: behavioral health; MCO: managed care organization; ICN: internal control number; DW: data warehouse; CPT: Current Procedural Terminology; HCPCS: Healthcare Common Procedure Coding System.

Appendix C: 2016 Performance Measure Rates

Table C1: 2016 Performance Measure Rates

Measurement Year 2016 Performance Measures	Community Behavioral Health			HealthChoices Population			
	Numerator	Denominator	Rate	Numerator	Denominator	Average Rate	Weighted Average Rate
Readmission After Psychiatric Discharge	1,309	9,522	13.7%	6,737	48,239	14.0%	14.0%
Follow-up After Hospitalization - HEDIS 7 Day	3,007	7,224	41.6%	17,076	37,505	45.5%	44.9%
Follow-up After Hospitalization - HEDIS 30 Day	4,313	7,224	59.7%	24,662	37,505	65.8%	65.4%
Follow-up After Hospitalization - PA 7 Day	3,688	7,224	51.1%	21,216	37,505	56.6%	55.8%
Follow-up After Hospitalization - PA 30 Day	4,870	7,224	67.4%	27,371	37,505	73.0%	72.7%