

**Arizona Health Care Cost Containment System (AHCCCS)  
2011 PERFORMANCE IMPROVEMENT PROJECT (PIP):**

**Improving Coordination of Care for Acute-Care Members Receiving Behavioral Health Services**

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**Background**

The Arizona Department of Health Services, Division of Behavioral Health Services, (ADHS/DBHS) reports that 270 deaths among people enrolled with the Division in the contract year ending (CYE) June 30, 2009, were categorized as accidental, including accidental overdose of prescription medications. This accounts for 28.3 percent of all deaths among DBHS members during that year.

Preliminary analysis of DBHS mortality data for one quarter of CYE 2010 indicates that accidental medication/substance toxicity represents a substantial portion of accidental deaths (Table 1).

**Estimated Accidental Overdose Mortalities, CYE 2010 Quarter 1**

Number of deaths classified as accidental	Number of accidental deaths due to medication/substance toxicity (overdose)	% of accidental deaths due to overdose
62	45	72.6%

During that same quarter, another 14 deaths were of unknown or other causes, with 11 of those deemed unknown because it could not be determined whether death was due to intentional overdose or accidental toxicity. Thus, the risk of mortality from medication/substance toxicity appears to be great.

Nationally, rates of overdose deaths involving prescription drugs increased rapidly from 1999 to 2006, and data indicate significant morbidity associated with “nonmedical use” of opioid analgesics and benzodiazepines.<sup>1</sup> A review by the CDC and the Substance Abuse and Mental Health Services Administration (SAMHSA) shows the estimated number of hospital emergency department (ED) visits for nonmedical use of opioid analgesics increased 111 percent from 2004 to 2008, and increased 29 percent from 2007 to 2008 alone. The highest numbers of ED visits recorded were for oxycodone, hydrocodone, and methadone, all of which showed statistically significant increases during the five-year period. The estimated number of ED visits involving nonmedical use of benzodiazepines increased 89 percent from 2004 to 2008, and 24 percent in the one year from 2007 to 2008.

The majority of medications prescribed to Medicaid beneficiaries who are enrolled with the Arizona Health Care Cost Containment System (AHCCCS) and receiving behavioral health services through ADHS/DBHS are prescribed by medical providers in the AHCCCS Acute-care program. Primary Care Practitioners (PCPs) contracted with Acute-care health plans may provide medication management services (prescriptions, medication monitoring visits, laboratory and other diagnostic tests necessary for diagnosis and treatment of behavioral disorders) to members with diagnoses of depression, anxiety and attention deficit/hyperactivity disorder. In addition, behavioral health medical providers (BHMPs) often prescribe benzodiazepines to treat symptoms of anxiety, depression and/or alcohol withdrawal.

ADHS/DBHS data show that 37,743 members age 18 and older who were enrolled in AHCCCS under Medicaid in calendar year 2008 had a diagnosis of anxiety, depression or substance use disorder (SUD). This accounted for one-third (33.6 percent) of adult Medicaid members enrolled with DBHS. Of those members, more than 3,500 had co-occurring diagnoses of anxiety or depression and SUD. ADHS data also show approximately 7,000 prescriptions for benzodiazepines among this population.

AHCCCS behavioral health members also are likely to be opiate users due to the correlation between disorders such as anxiety and depressive disorders and chronic pain disorders. A recent study suggests a 2.9 to 4.5 time's higher prevalence of pain disorders in anxiety and depressive cohorts, compared with control groups without anxiety/depressive disorders.<sup>2</sup>

The higher incidence of behavioral health members receiving benzodiazepines and opiate medications due to the co-occurring nature of pain and behavioral health disorders highlights the importance of improving coordination of care between Acute-care medical providers and BHMPs. Both opiates and benzodiazepines have synergistic sedative effects on the central nervous system, causing lethargy, hypotension, and negatively effecting respiration. Thus, coordination of care for members receiving opiate prescriptions should include close monitoring of prescription interactions to avoid possible adverse reactions.<sup>2</sup>

In its contracts, AHCCCS requires Acute-care health plans and ADHS/DBHS to coordinate care for members receiving services through both systems. Acute-care Contractors are responsible for ensuring that a medical record is established by the PCP when behavioral health information is received from the RBHA or provider about an assigned member, even if the PCP has not yet seen the assigned member. Contractors also should ensure that PCPs respond to requests from ADHS-contracted Regional Behavioral Health Authorities (RBHAs) or their providers pertaining to members receiving behavioral health services within 10 business days. PCPs should provide all pertinent information, including, but not limited to, current diagnoses, medications, laboratory results, last PCP visit, and recent hospitalizations. Likewise, ADHS/DBHS is responsible for coordinating care with Acute-care Contractors. For all members who are behavioral health recipients referred by PCPs or determined by ADHS to have serious mental illness, it must provide, at a minimum, each member's diagnosis, critical labs, and prescribed medications, including notification of changes in class of medications, to the appropriate PCP.

Currently, there is no routine electronic data sharing between medical and behavioral health providers related to the management of chronic pain and behavioral health conditions in AHCCCS members. The current method is largely process-focused and may not constitute true coordination of care through timely, reciprocal exchange of information from doctor to doctor.

### **Purpose**

The purpose of this Performance Improvement Project (PIP) is to improve coordination of care provided to AHCCCS members who are receiving both medical and behavioral health services through the exchange of opiate and benzodiazepine prescribing and other clinical information between medical and behavioral health providers, in order to reduce morbidity and/or mortality among these members.

## **Measurement Periods**

Baseline measurement: October 1, 2010, through September 30, 2011

First re-measurement: October 1, 2012 through September 30, 2013

Second re-measurement: October 1, 2013, through September 30, 2014

## **Study Question**

Will improved care coordination between Acute-care medical providers and BHMPs, including targeted exchange of opiate and benzodiazepine prescribing data, reduce morbidity and/or mortality among AHCCCS members served through the Division of Behavioral Health Services and an Acute Contractor?

## **Population**

The population will include adults ages 21 to 64 at the time of enrollment who:

- are enrolled with AHCCCS Acute-care Contractors (contract type A, Acute Capitated) and DBHS under Title TXIX (contract type K, Mental Health Services, Capitated, Acute Only),
- have an active episode of care in the behavioral health system as General Mental Health (GMH), Seriously Mentally Ill (SMI) or Substance Use Disorder (SUD) members,
- are continuously enrolled with both an Acute-care Contractor and ADHS/DBHS for at least 180 days after the date of enrollment/active episode of care with DBHS during the measurement period, and
- are dispensed at least one prescription for an opiate or benzodiazepine, as determined by specific National Drug Code (NDC) identifiers (See Appendix A).

## **Population Exclusions**

Members who:

- do not meet the age criteria during the measurement period
- do not meet the continuous enrollment/active episode of care criteria during the measurement period (Prior Period Coverage, or PPC will be considered a break in enrollment and these members will be excluded)
- have only a crisis episode of care in the behavioral health system
- were not dispensed a benzodiazepine or an opiate medication during the measurement period
- were enrolled with Arizona Long Term Care System (ALTCS) Contractors or covered through the AHCCCS Fee-for-service Program (including those receiving services only through Indian Health Services)

## **Population Stratifications**

The population will be stratified by:

- Acute-care Contractor\*
- ADHS/DBHS\*
- GSA
- RBHA
- Other stratifications deemed appropriate (e.g., by GMH, SMI or SUD category)

\* Each member selected for the measurement will be included in both the appropriate Acute-care Contractor's denominator and the ADHS/DBHS denominator.

## **Sample Frame**

All members who meet the population inclusion criteria

## **Sample Selection**

No sample will be selected; all members who meet the sample frame criteria will be included in the measurement.

## **Indicators**

1. The percent of members in the sample frame who are admitted to an acute inpatient setting (medical/surgical hospital or Level I psychiatric facility) with a diagnosis of chronic pain, substance abuse, anxiety, and/or depression during the measurement period, overall and by Acute-care Contractor and ADHS/DBHS.
2. The percent of members in the sample frame who have Emergency Department visits with a diagnosis of chronic pain, substance abuse, anxiety, and/or depression during the measurement period, overall and by Acute-care Contractor and ADHS/DBHS.
3. The percent of members in the sample frame who died during the measurement period, and whose deaths were classified as accidental, suicide or unknown, overall and by Acute-care Contractor and ADHS/DBHS.

## **Numerators**

1. The number of members in the sample frame who are admitted to an acute inpatient setting (medical/surgical hospital or Level I psychiatric facility) with a primary or secondary diagnosis of chronic pain, substance abuse, anxiety, and/or depression during the measurement period (See Appendix B).†
2. The number and percent of members in the sample frame who have Emergency Department visits with a primary or secondary diagnosis of chronic pain, substance abuse, anxiety, and/or depression (See Appendix B).†
3. The number of members in the sample frame who died during the measurement period, and whose deaths were classified as accidental, suicide or unknown.†

\* Each member meeting the numerator criteria will be included in both the appropriate Acute-care Contractor's numerator and the ADHS/DBHS numerator.

## **Denominator**

1. The number of members who meet the sample frame criteria

## **Confidentiality Plan**

AHCCCS continues to work in collaboration with Contractors to maintain compliance with the Health Insurance Portability and Accountability Act (HIPAA) requirements. The Data Analysis and Research (DAR) Unit of the Division of Health Care Management (DHCM) maintains the following security and confidentiality protocols:

- To prevent unauthorized access, the sample member file is maintained on a secure, password-protected computer, by the DAR project lead.
- Only DHCM employees who analyze data and manage the project have access to member-specific study data.
- All employees and Contractors are required to sign a confidentiality agreement.

- Requested data are used only for the purpose of performing health care operations, oversight of the health care system, or research.
- Only the minimum amount of necessary information to complete the project is collected, analyzed and shared with Contractors.
- Member names are never identified or used in reporting.
- Upon completion, all study information is removed from the computer and placed on a compact disk, and stored in a secure location.

**Data Sources**

- AHCCCS recipient and encounter data and ADHS/DBHS encounter data will be used to identify members who meet the sample frame criteria.
- AHCCCS encounter data will be used to identify inpatient admissions and ED visits.
- ADHS/DBHS mortality data will be used to identify deaths.

**Data Collection Process**

AHCCCS will collect recipient and encounter data from the Prepaid Medical Management Information System (PMMIS). These data will be combined with ADHS/DBHS data to identify the sample frame. AHCCCS will then collect utilization data (inpatient admissions and ED visits) for the Numerators 1 and 2, based on the following identifiers:

**Codes to Identify Emergency Department, Acute Inpatient Hospital and Inpatient Psychiatric Facility Services**

	<b>CMS Place of Service (POS) Code</b>	<b>Bill Type</b>	<b>Rev Code</b>
Emergency department	23	131	45X
Inpatient hospitalization	21	11X	1X4
Inpatient psychiatric facility	51		1X6, 204

In addition, AHCCCS will provide an electronic file of sample members for each measurement to ADHS/DBHS and Acute-care Contractors to collect any mortality data, and return it to AHCCCS.

**Data Validation**

- Data validation will be performed to ensure that all data received from the Information Services Division (ISD) are from the appropriate service records and meet this indicator service selection criteria, and that all recipients selected meet the proper enrollment criteria, according to DHCM’s data quality control process for Performance Improvement Projects and Performance Measures. This process includes obtaining a test file of data, which will be checked for information pertaining to individual members and the study/indicator criteria, including:
  - the AHCCCS identification number
  - the Acute-care Contractor identification number
  - the member’s full name and birth date
  - Beginning and end dates of enrollment
  - Enrollment/active episode of care status during the measurement period (i.e., did the member meet the continuous enrollment criteria?)

- Member meets the age range and other inclusion criteria, as specified in the methodology
- If the member meets any of the exclusion criteria, he or she is not included in the sample frame
- NDC and/or diagnosis codes selected for the member are those specified in the methodology
- If a member is included in the bypass file, he or she meets exclusion criteria
- If errors are located in the files, corrections will be made and the files will be regenerated.
- In addition, encounter data are validated annually through a separate process to evaluate completeness, accuracy and timeliness.
- Subject to availability of resource, a randomized, double-blinded chart audit may be performed to evaluate data accuracy and completeness.

### **Limitations**

- Members who are dually enrolled in Medicaid and Medicare may obtain medications and services through Medicare, and AHCCCS and its Contractors are unable to collect complete data for these patients. Therefore, these members may meet the population inclusion criteria for the measurement, but may not be included in the sample frame because prescription medication data are not available (i.e., prescriptions were covered under Medicare Part D).
- Members may obtain medications outside of the Medicaid program (i.e., other prescription coverage or street drugs)
- Other unidentified factors besides Contractor interventions may falsely influence results.

### **Comparative Analysis**

- Comparative analysis will include:
  - Individual Contractor to the statewide average
  - All other stratifications as deemed appropriate (e.g., age, gender, race/ethnicity)
- Differences between overall baseline study results and overall remeasurement results will be analyzed for statistical significance and relative change.
- Results may be compared to results of any other comparable studies, if available

### **Analysis Plan:**

- A member who meets the indicator criteria will be included in results for both ADHS/DBHS and the Acute-care Contractor with whom the member is enrolled.
- The denominator will be divided by the numerator to determine the percentage of compliance with each indicator.
- Variability of distribution will be calculated by range and standard deviation. Any Contractor with results more than two standard deviations from the mean will be identified and the reason(s) ascertained if possible. To avoid skewed and misleading conclusions, any such Contractor may be excluded from selected charts and graphs. Clear documentation in the report will caveat any Contractor exclusions and the reasons for exclusion.
- A statistical software package will be used to calculate the statistically significant value of changes in Contractor and overall rates between measurements. A finding will be

described as statistically significant when it can be demonstrated that the probability of obtaining such a difference by chance only is relatively low (e.g.,  $p \leq .05$ ).

## References:

- 1 Emergency Department Visits Involving Nonmedical Use of Selected Prescription Drugs --- United States, 2004—2008. Centers for Disease Control and Prevention. MMWR. June 18, 2010, 59(23);705-709. Available at: [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5923a1.htm?s\\_cid=mm5923a1\\_e](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5923a1.htm?s_cid=mm5923a1_e). Accessed July 1, 2010.
- 2 Scott KM, et al. Depression-anxiety relationships with chronic physical conditions: results from the World Mental Health Surveys. *J Affect Disord*. 2007 Nov;103(1-3):113-20. Epub 2007 Feb 9.

## Technical Specifications

### Revenue Code Definitions (UB-04)

#### **Hospitalization, Psychiatric**

114 Psychiatric R&B  
124 Private  
134 Semi-Private  
144 Deluxe  
154 Ward  
204 Intensive Care Psych

#### **Hospitalization, Substance Abuse**

118 Rehabilitation  
128 R&B Private  
138 Semi-Private  
148 Deluxe  
158 Ward

**See Appendix A, NDC Codes, and Appendix B, Diagnosis Codes**