

## 1. Objective

The goal of this use case is to identify ways in which states can leverage integrated Medicare-Medicaid data to generate a profile of prescription opioid use among their dual eligible populations.

## 2. Analysis Overview

### 2.1 Background

Substance Use Disorder (SUD) is a common and costly public health problem in the United States.<sup>1</sup> Prescription opioid misuse particularly has emerged as a growing epidemic with the amount of prescribed opioids sold in the U.S. and associated overdose deaths quadrupling from 1999 to 2013.<sup>2,3</sup> In an attempt to reverse this epidemic and prevent opioid-related mortality, morbidity and cost, many states are implementing efforts to improve safer prescribing of opioids.<sup>4</sup>

To address prescription opioid misuse among dual eligibles, states must first have an understanding of prescription filling patterns and factors associated with opioid misuse within this vulnerable population. The analysis of Medicare and Medicaid prescription data provides an opportunity to achieve this.

### 2.2 Potential Application of Findings

- **Care coordination.** The findings of this use case will enable states to profile opioid prescription use and potential misuse among their dual eligible populations. States could use this information to identify individuals who are at risk and could benefit from care coordination and early interventions to prevent opioid misuse, overdose and death. They could also use the information to assess the clinical appropriateness of prescriptions and prevent dangerous drug interactions due to polypharmacy.<sup>5</sup> This is particularly relevant for the provision of care for dual eligibles for whom the occurrence of multiple comorbidities is common.<sup>6</sup>
- **Program planning and evaluation.** States can also use findings from this use case for program planning to predict the need for and cost of behavioral health care services, medical services and long-term services and supports (LTSS) for dual eligible individuals with opioid SUD. Most people with opioid SUD receive multiple rounds of treatment. By identifying individuals who use opioids and their prescription-filling behaviors, states could target care towards relapse prevention and treatment.<sup>7, 8</sup> Further, states could use the metrics described below to evaluate the efficacy of programs and interventions.

## 2.3 Analytic Aims Addressed

The questions that states will want to address through this analysis will depend on their unique interests and existing opioid misuse monitoring programs or related initiatives. Further, there are a number of quality and performance measures that address this topic. The prevalence estimates and performance measures below are intended as examples:

1. Generate yearly prevalence estimates of opioid prescription fills as follows:
  - a. Proportion of beneficiaries who filled an opioid prescription
  - b. Proportion of beneficiaries who filled opioid and benzodiazepine prescriptions (at different times and concurrently)
  - c. Proportion of beneficiaries who filled opioid prescriptions by the number of consecutive days covered by the prescription (30, 60, 90 days)
  - d. Proportion of beneficiaries who filled opioid prescriptions by dosage (less than 100mg, 100mg, 120mg, 140+mg)
  - e. Proportion of beneficiaries who received multiple opioid prescription from different prescribers over the course of the year (1, 2-3, 4+)
  - f. Proportion of beneficiaries who received multiple concurrent opioid prescriptions from different prescribers (1, 2-3, 4+)
2. Compare prevalence estimates generated in #1 by the following characteristics:
  - a. Age
  - b. Gender
  - c. Race and ethnicity
  - d. Geographic area by state-defined regions (e.g., rural vs. urban)
  - e. Chronic conditions (e.g., SUD, other behavioral health, cancer)
  - f. Medicaid benefit status: full-benefit, partial-benefit, partial-benefit without Qualified Medicare Beneficiary-only (QMB-only), QMB-only
  - g. Treatment setting categorized into the following groups: community “well” (or non-LTSS), community LTSS (such as participation in home and community-based waivers or use of State Plan personal care) and institutional LTSS (such as nursing facility care; Intermediate Care Facilities for Individuals with Intellectual Disability (ICF/IID); Inpatient Psychiatric Services for Individuals Under Age 21, and Services for individuals age 65 or older in an institution for mental diseases).
3. Develop a profile of prescription opioid use and prescribing behaviors among dual eligibles by performing the following analytics based on the Pharmacy

Quality Alliance (PQA) performance measures.<sup>9</sup> Three PQA measures examine multi-provider, high-dosage opioid use among individuals 18 years and older without cancer. For each measure described below, findings will be reported based on the characteristics identified in #2.

- a. **Measure 1 (Opioid High Dosage):** The proportion (XX out of 1,000) of individuals without cancer receiving prescriptions for opioids with a daily dosage greater than 120mg morphine equivalent dose (MED) for 90 consecutive days or longer.
- b. **Measure 2 (Multiple Prescribers and Multiple Pharmacies):** The proportion (XX out of 1,000) of individuals without cancer receiving prescriptions for opioids from four or more prescribers **and** four or more pharmacies.
- c. **Measure 3 (Multi-Provider, High Dosage):** The proportion (XX out of 1,000) of individuals without cancer receiving prescriptions for opioids with a daily dosage greater than 120mg morphine equivalent dose (MED) for 90 consecutive days or longer, **and** who received opioid prescriptions from four or more prescribers **and** four or more pharmacies.

### 3. Medicare, Medicaid, and Other Relevant Data Sources

Table 1 identifies the time period available and data source for relevant data files.

Table 1: Medicare, Medicaid, and Other Relevant Data Sources

Data Files	Time Period Available	Source
Master Beneficiary Summary File (MBSF) Base Segment (A/B/D)	2007 through 2016	Chronic Condition Data Warehouse (CCW) <sup>10</sup>
Current Medicare Parts A/B, Enhanced Coordination of Benefits Agreement (COBA)	Two weeks post-adjudication	Benefits Coordination and Recovery Center (BCRC)
Historic Medicare Part D PDE	2007 – 2016	Integrated Data Repository (IDR)
Monthly Medicare Part D PDE	One month processing lag	IDR
MBSF Chronic or Other Potentially Disabling Conditions	2007 through 2014	CCW
MBSF Chronic Condition Segment	2007 through 2014	CCW
Identifier Crosswalks	2007 through 2016	CCW
Medicaid claims and enrollment	Varies by State	State Medicaid Management Information System (MMIS), Data Warehouse or other



Data Files	Time Period Available	Source
Drug reference database	Varies by source	There are many options available to states, including both proprietary and publicly-available sources. An example of the latter is the Conversion Reference Table from Centers for Disease Control and Prevention (CDC) Prescription Drug Monitoring Program Training and Technical Assistance Center's (PDMP TTAC) guide. <sup>11</sup>

#### 4. Technical Assistance and Analytic Tasks

The Medicare-Medicaid Data Integration (MMDI) program is an initiative sponsored by both the CMS Medicare-Medicaid Coordination Office (MMCO) and the Center for Medicaid and CHIP Services (CMCS). The focus of the MMDI program is to provide cost-free technical support to selected states and assist them with integrating the Medicare and Medicaid data in order to enhance care coordination and reduce costs for the dual eligible population. Working with CMS, FEi Systems provides this support. In each contract year, the MMDI team collaborates with a certain number of participating Financial Alignment Initiative (FAI) and Innovation Accelerator Program (IAP) states to gain in-depth understanding of the data integration challenges faced, provide technical support and assistance in addressing the those challenges, and document common issues and best practices. One of the services offered by the MMDI team is to provide states with use cases that demonstrate how states can leverage integrated Medicare and Medicaid data to potentially inform policy and program design, educate stakeholders, and benefit dual eligibles.

The MMDI team is available to provide state-specific assistance in integrating and making use of the data sources identified in Table 1 above. States do not need to acquire and use all of these data sources in order to conduct the analysis. The team can help states determine the best data sources to address specific areas of interest. In addition, the team can provide technical and subject matter expertise at the request of the states in any of the following areas:

- Develop a detailed description of the proposed approach to this analysis, including the optimal data sources, relevant data fields, and an estimated timeline for each step.
- Develop technical specifications and programming code to:
  - Identify appropriate prescription records through matching using National Drug Codes (NDC) or other pharmaceutical nomenclature



- Calculate morphine milligram equivalents (MME) to standardize dosage reporting across different prescription types
- Link beneficiaries across data sources and by enrollment status
- Define and identify subpopulations the state believes may have disproportionate opioid misuse
- Provide consultation on report and/or dashboard design featuring the results of the integrated data analysis.

## 5. Contact Information

Any state that is currently integrating or plans to integrate Medicare and Medicaid data in order to enhance care coordination and reduce costs for the dual eligible population and is interested in support related to this particular topic may contact the following:

- The MMDI Team: [MMDIFEITeam@feisystems.com](mailto:MMDIFEITeam@feisystems.com)
- The State Data Resource Center (SDRC): [SDRC@acumenllc.com](mailto:SDRC@acumenllc.com)

## End Notes

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- <sup>1</sup> “Trends & Statistics” National Institute of Drug Statistics. August 2015. <https://www.drugabuse.gov/related-topics/trends-statistics>, accessed 7/14/2016.
  - <sup>2</sup> “Injury Prevention & Control: Opioid Overdose” Centers for Disease Control and Prevention. March 14 2016. <http://www.cdc.gov/drugoverdose/data/index.html>, accessed 7/14/2016.
  - <sup>3</sup> “Morbidity and Mortality Weekly Report (MMWR)” Rose A. Rudd, MSPH; Noah Aleshire, JD; Jon E. Zibbell, PhD; R. Matthew Gladden, PhD. Centers for Disease Control and Prevention. January 1, 2016. [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6450a3.htm?s\\_cid=mm6450a3\\_w](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6450a3.htm?s_cid=mm6450a3_w), accessed 7/14/2016.
  - <sup>4</sup> “Injury Prevention & Control: Opioid Overdose” Centers for Disease Control and Prevention. March 15, 2016. [http://www.cdc.gov/drugoverdose/states/state\\_prevention.html](http://www.cdc.gov/drugoverdose/states/state_prevention.html), accessed 7/14/2016.
  - <sup>5</sup> “Polypharmacy and opioid use among Medicare Part D enrollees” Medicare Payment Advisory Commission (MedPAC). June 2015. [http://www.medpac.gov/documents/reports/chapter-5-polypharmacy-and-opioid-use-among-medicare-part-d-enrollees-\(june-2015-report\).pdf?sfvrsn=0](http://www.medpac.gov/documents/reports/chapter-5-polypharmacy-and-opioid-use-among-medicare-part-d-enrollees-(june-2015-report).pdf?sfvrsn=0), accessed 7/14/2016.
  - <sup>6</sup> “Chronic Disease and Co-Morbidity Among Dual Eligibles: Implications for Patterns of Medicaid and Medicare Service Use and Spending” Kaiser Family Foundation. June 1, 2010. <http://kff.org/health-reform/report/chronic-disease-and-co-morbidity-among-dual/>, accessed 7/14/2016.
  - <sup>7</sup> “Medication-Assisted Treatment (MAT)” Substance Abuse & Mental Health Services Administration (SAMHSA). May 23, 2016. <http://www.samhsa.gov/medication-assisted-treatment>, accessed 7/14/2016.
  - <sup>8</sup> “Treating Addiction to Prescription Opioids” National Institute on Drug Abuse. November, 2014. <https://www.drugabuse.gov/publications/research-reports/prescription-drugs/treating-prescription-drug-addiction/treating-addiction-to-prescription-opio>, accessed 7/14/2016.
  - <sup>9</sup> “Performance Measure: Proportion of Days Covered (PDC)” Pharmacy Quality Alliance (PQA). June, 2015, Page 4 of 5. <http://pqaalliance.org/images/uploads/files/PQA%20measuresJuly2015.pdf>, accessed 7/14/2016.
  - <sup>10</sup> “Data Dictionaries” Chronic Conditions Data Warehouse (CCW). <https://www.ccwdata.org/web/guest/data-dictionaries>, accessed 7/14/2016.
  - <sup>11</sup> “Technical Assistance Guide No. 01-13: Calculating Daily Morphine Milligram Equivalents” Prescription Drug Monitoring Program Training and Technical Assistance Center. February 2013, Page 6 of 6. [http://www.pdmpassist.org/pdf/BJA\\_performance\\_measure\\_aid\\_MME\\_conversion.pdf](http://www.pdmpassist.org/pdf/BJA_performance_measure_aid_MME_conversion.pdf), accessed 7/14/2016.