

## IUPUI Opioid Use Dashboard

### Overview

The Lewin Group (Lewin) collaborated with the Richard M. Fairbanks School of Public Health at Indiana University–Purdue University Indianapolis (IUPUI) to create the IUPUI Opioid Use Dashboard (Dashboard), which is a data visualization tool that illustrates opioid utilization among individuals covered by commercial or Medicare Advantage health plans in Indiana.

### A. Opioid Key Performance Indicators

The Dashboard contains Key Performance Indicators (KPIs), as developed by OptumLabs, to measure different aspects of opioid utilization. KPIs provide a comprehensive view of the opioid issue through standardized metrics and definitions. KPIs were developed by a combination of internal experts from Optum, UnitedHealth Group, and UnitedHealthcare and an external Expert Advisory Panel, made up of academics with specific areas of expertise in opioids and pain management.

The KPIs are calculated using UnitedHealthcare commercial and Medicare Advantage claims data based on medical and pharmacy claims for Indiana residents incurred from 2014 through 2016. The KPIs are organized in different domains, based on what is being measured. The following table shows the KPIs included in the dashboard:

**Key Performance Indicators**

KPI	Domain
Cases of Overdose (OD) per 100,000 person-years	Prevention
Cases of OD per 100,000 person-years among enrollees <18	Prevention
Cases of (Opioid Use Disorder) OUD per 1000 person-years	Treatment
Cases of OUD per 1000 person-years among enrollees <18	Treatment
Evidence of Medication Assisted Treatment (MAT) following OD	Treatment
Initial opioid dose is <50 Morphine Milligram Equivalents (MME)/day	Prevention
No concurrent opioid and benzodiazepine use	Prevention
No opioid prescription fills following OD or OUD diagnosis	Treatment

### B. Identification Methodology

The KPI methodology uses the following criteria to identify the conditions and treatments measured:

- Evidence of Opioid Overdose. Any OD diagnosis codes on a claim
- Evidence of Opioid Use Disorder. Any OUD diagnosis codes on a claim OR evidence of MAT (see below).

- Medication Assisted Treatment was identified via three routes:
  - 1) Any National Drug Code (NDC) codes for drugs used in MAT (i.e. Buprenorphine) on a pharmacy claim
  - 2) Any National Drug Code (NDC) codes for drugs used in MAT on a medical claim, where populated
  - 3) Any MAT procedure codes, such as Healthcare Common Procedure Coding System (HCPC) and International Statistical Classification of Diseases and Related Health Problems (ICD) procedure codes, on a medical claim
- Morphine Milligram Equivalents (MME): Calculated by applying the Centers for Disease Control and Prevention (CDC) MME conversion factor to the strength, number of units, and days supplied information from a pharmacy claim

### C. Dashboard Worksheets

The Dashboard includes three data tabs and a Glossary tab. The three data tabs are:

- 1) Opioid Measures by County: Includes a map of Indiana showing KPI values by county. Also includes a table showing measure values, along with numerators and denominators used to calculate them
- 2) Opioid Measures by County Percent Change over Time: Includes a map of Indiana and a table showing the change in KPI values by county
- 3) Opioid Measures over Time: Includes a chart showing the change in measure values by year

Each data tab contains a drop-down menu allowing the user to select the KPI of interest.

There is also a drop-down menu for Outcome. There are two different types of outcomes, depending on the KPI:

- 1) For the per person-year KPIs, the Outcome value is always “per person year”
- 2) For all other KPIs, the Outcome values are either “Compliant” or “Non-Compliant”. The KPI value indicates the percentage of cases by Outcome.

### D. Comparison to National KPI Values

The Dashboard shows KPI values statewide and by county. The table below compares the statewide values to national values for the same commercial and Medicare Advantage populations.

**KPI metrics: National vs. Indiana (2016)**

KPI	Indiana	National
Cases of OD per 100,000 person-years (adult/child)	32.1	35.9
Cases of OD per 100,000 person-years (<18)	6.93	7.23
No concurrent opioid and benzodiazepine use (non-compliant cases)	20.0%	22.0%
Initial opioid dose is <50MME/day (non-compliant cases)	22.0%	22.8%
Cases of OUD per 1000 person-years	8.41	7.97
Cases of OUD per 1000 person-years (among enrollees <18)	0.51	0.21
Evidence of MAT following OD	12.0%	27.8%
No opioid prescription fills following OD or OUD diagnosis	47.0%	41.1%