# Oregon Statewide Performance Improvement Project on Opioid Safety: Reducing Prescribing of High Morphine Equivalent Doses

Prepared by HealthInsight Oregon Updated October 27, 2016

# **Standard 1: Study Topic**

Standard 1 establishes the importance of the study topic in general; presents local data to demonstrate that the topic applies to a large or high-risk portion of the Medicaid population and will have a significant impact on enrollee health, functional status, or satisfaction; and demonstrates that a systematic selection and prioritization process, that includes opportunities for input by enrollees and providers, was used in choosing the topic.

#### Status of PIPs in Oregon

The Oregon Health Authority's (OHA) contract with Coordinated Care Organizations (CCOs), as negotiated with the Centers for Medicare and Medicaid Services (CMS) requires CCOs to conduct three performance improvement projects (PIPs) and one focus study that target improving care in at least four of seven quality improvement areas. OHA determined that one of the PIPs would be conducted as a statewide collaborative on the integration of physical health and behavioral health, and in accordance with the 2012 CMS PIP protocol. The first statewide PIP (2013–2015) addressed diabetes monitoring in people with schizophrenia or bipolar disorder. The second statewide PIP focuses on improving the safety of prescription opioid management.

The external quality review organization, HealthInsight Oregon, is responsible for facilitating and documenting the 10 PIP validation standards adapted from federal guidelines. The CCOs are responsible for developing interventions that meet the needs of their local communities and documenting their efforts in quarterly reports to OHA.

#### Topic Overview

Opioid abuse and misuse is a major public health problem in the United States. Federal and state health agencies, medical provider organizations, health care researchers, and the Veterans Administration have been galvanized to address the opioid epidemic in response to public testimonies, provider concerns, and alarming national statistics. When compared to other countries, the United States comprises only 4.6% of the world's population, yet the country uses 99% of the world's supply of hydrocodone and 83% of the world's oxycodone.<sup>1</sup>

Data collected at a national level reveals that from 1999 through 2006, opioid-analgesic deaths increased about 18% on average. The rate stabilized from 2006 to 2011, then began to decline in

<sup>&</sup>lt;sup>1</sup> Report of the International Narcotics Control Board for 2007. https://www.incb.org/documents/Publications/AnnualReports/AR2007/AR\_07\_English.pdf. Accessed January 12, 2016.

2012.<sup>2</sup> A recent report by the Centers for Disease Control and Prevention (CDC) indicates that the decline has not been sustained. Data show that although overdose deaths due to natural and semisynthetic opioids (which include most of the prescribed opioid pain relievers) remained similar from 2012 to 2013, there was a 9% increase from 2013 to 2014.<sup>3</sup>

Overdose and death are not the only adverse effects of the abuse and misuse of prescription opioids. The CDC estimated that prescription opioid abuse costs (i.e., lost workplace productivity, medical treatment, and criminal justice costs), were approximately \$55.7 billion in 2007.<sup>4</sup>

Studies by Washington State and New York State demonstrated that the Medicaid population is disproportionately affected by the opioid epidemic. In Washington, a Medicaid enrollee was 5.7 times more likely to die due to prescription opioid overdose than a person not enrolled in Medicaid. A similar increased death rate among Medicaid enrollees was observed in New York State from 2003 to 2012. In response to the particular vulnerability of the Medicaid population, CMS issued a bulletin describing Medicaid pharmacy benefit management and naloxone provision strategies states could employ to reduce opioid-related overdose deaths.

As part of a national initiative to address the opioid problem, the CDC awarded 16 states (including Oregon) grants to assist those states in their efforts to prevent opioid misuse and overdose. In addition, the CDC issued opioid prescribing guidelines for primary care providers in early 2016. Although there have been published state, regional, and professional guidelines and resource guides, the CDC guidelines are the first set of standards on the topic of prescription opioids from a federal agency. Among other recommendations, the CDC proposed that providers should avoid increasing opioid dosages to  $\geq 90$  mg/day morphine milligram equivalent (MEE)/day and "carefully reassess benefits and risks" when increasing opioid dosages to  $\geq 50$  MME $^8$ . Other guidelines (Washington State, Medicare) have established a target of < 120 mg/day MED.

In March 2016, President Obama addressed the National Prescription Drug Abuse and Heroin Summit in Atlanta, Georgia and announced a series of public and private sector initiatives aimed

<sup>&</sup>lt;sup>2</sup> Chen, LH, Hedegaard, H, Warner, M. Drug-poisoning Deaths Involving Opioid Analgesics: United States, 1999-2011. NCHS Data Brief, No. 166, September 2014. http://www.cdc.gov/nchs/data/databriefs/db166.pdf.

<sup>&</sup>lt;sup>3</sup> Centers for Disease Control and Prevention. Morbidity and Mortality Weekly Report (MMWR). Increases in Drug and Opioid Overdose Deaths – United States, 2000-2014. December 18, 2015. http://www.cdc.gov/mmwr/preview/mmwrhtml/mm64e1218a1.htm?s\_cid=mm64e1218a1\_e. Accessed January 12,

<sup>&</sup>lt;sup>4</sup> Centers for Disease Control and Prevention. Injury Prevention & Control: Prescription Drug Overdose. http://www.cdc.gov/drugoverdose/data/overdose.html. Accessed February 17, 2016.

<sup>&</sup>lt;sup>5</sup> Coolen P, Lima A, Savel J, et al. Overdose deaths involving prescription opioids among Medicaid enrollees—Washington, 2004-2007. *Morb Mortal Wkly Rep.* 2009; 58:1171-1175.

<sup>&</sup>lt;sup>6</sup> Sharp MJ, Melnik TA. Poisoning deaths involving opioid analgesics-New York State, 2003-2012. *Morb Mortal Wkly Rep.* 2015; 64:377-380.

<sup>&</sup>lt;sup>7</sup> Centers for Medicare & Medicaid Services. CMCS Informational Bulletin: Best Practices for Addressing Prescription Opioid Overdoses, Misuse and Addiction. https://www.medicaid.gov/federal-policy-guidance/downloads/CIB-02-02-16.pdf. Accessed February 17, 2016.

<sup>&</sup>lt;sup>8</sup> Centers for Disease Control and Prevention. Morbidity and Mortality Weekly Report (MMWR). CDC Guideline for Prescribing Opioids for Chronic Pain – United States, 2016. March 18, 2016. Accessed at: http://www.cdc.gov/mmwr/volumes/65/rr/rr6501e1.htm

at stemming prescription opioid abuse and the heroin epidemic. Among other actions, the Federal government will increase the number of patients a provider can prescribe buprenorphine to from 100 to 200, award funding to 271 community health centers and 11 states to expand access to medication-assisted treatment (MAT), provide funding for states to purchase and distribute naloxone, a drug used to reverse opioid overdose, and to train first-responders in its use and create a federal interagency task force on mental health and substance use disorder parity.<sup>9</sup>

# Oregon

Statewide, Oregon had the highest rate of nonmedical uses of prescription opioids for people 18 years and older in 2011–2012, according to the National Survey on Drug Use Health. Oregon tied for second place in 2012–2013.<sup>10</sup>

Data collected by state and federal agencies reveal the extent of the opioid epidemic in Oregon:

- In 2013, the number of deaths due to drug overdose exceeded that of motor vehicles among people 25 to 64 years of age. Half of the drug overdose deaths were related to prescription drugs, and over 70% of the prescription drug overdoses involved opioids.<sup>11</sup>
- The rate of opioid hospitalizations in Oregon increased from 2.6 per 100,000 in 2000 to 10.0 per 100,000 in 2013, according to the Oregon Public Health Division (PHD). 12
- Unintentional and undetermined prescription opioid poisoning death rates followed a similar trend, increasing from 1.4 per 100,000 in 2,000 to 6.5 per 100,000 in 2006. In 2012, the rate was 4.2 per 100,000.<sup>13</sup>
- The PHD reported that while the prescription drug poisoning/overdose death rates in 2013 and 2014 had declined to approximately 4.0 per 100,000, the 2013 rate was still 2.8 times higher than in 2000.<sup>14</sup>
- Recent data from the CDC showed an increase in all drug overdose deaths in Oregon: from 11.3 deaths per 100,000 persons in 2013 to 12.8 deaths per 100,000 persons in 2014. Since the CDC data do not distinguish between deaths due to heroin and those due to natural and semisynthetic opioids (associated with the more commonly prescribed opioid pain relievers), further analyses are needed to determine if there is consistency between the national and state data.

<sup>&</sup>lt;sup>9</sup> White House press release: Fact Sheet: Obama Administration Announces Additional Actions to Address the Prescription Opioid Abuse and Heroin Epidemic. March 29, 2016. Accessed at: https://www.whitehouse.gov/the-press-office/2016/03/29/fact-sheet-obama-administration-announces-additional-actions-address

<sup>&</sup>lt;sup>10</sup> National Survey on Drug Use Health. Available at: http://www.icpsr.umich.edu/icpsrweb/ICPSR/series/64

<sup>&</sup>lt;sup>11</sup> Oregon Health Authority, Public Health Division. Injury and Violence Prevention Program. Prescription Drug Poisoning/Overdose in Oregon. http://www.orpdmp.com/PDO\_2015v04242015.pdf. Accessed February 17, 2016. <sup>12</sup> See note 9 above.

<sup>&</sup>lt;sup>13</sup> Oregon Health Authority, Center for Prevention & Health Prevention. Injury & Violence Prevention section. Drug Overdose Deaths, Hospitalizations, Abuse & Dependency among Oregonians. http://public.health.oregon.gov/DiseasesConditions/InjuryFatalityData/Documents/oregon-drug-overdose-report.pdf. Accessed February 17, 2016.

<sup>&</sup>lt;sup>14</sup> Oregon Health Authority, Public Health Division. Injury and Violence Prevention Program. Prescription Drug Poisoning/Overdose in Oregon. http://www.orpdmp.com/PDO\_2015v04242015.pdf. Accessed February 17, 2016.

In terms of the Medicaid population, an exploratory data analysis for this PIP by the OHA Office of Health Analytics demonstrated that out of 170,000 adults 18 years and older on Medicaid, 35,749 individuals (21% of the total population) received 6 or more prescriptions for opioid pain relievers in calendar year 2014. The percentage of the CCO adult population receiving 6 or more prescriptions ranged from 8.0% to 31.1% per CCO.

Recognizing the alarming trend in prescription opioid misuse and abuse, the State of Oregon and health professionals/organizations have taken steps to address the problem, including but not limited to:

- The Oregon Legislature established a Prescription Drug Monitoring Program (PDMP) in 2009. The PDMP, which became operational in 2011, is a tool intended to assist health care providers in providing better patient care by helping providers identify risks associated with controlled drug dispensing and use.
- In 2011, the managed care organization, Doctors of Oregon's Coast South (DOCS) selected the topic of opioid prescribing for a PIP after reviewing alarming pharmacy data. Opioid prescribing continued to be a focus for improvement even after DOCS merged with other partners to create Western Oregon Advanced Health (WOAH) CCO.
- In 2011, Dr. Jim Shames, Medical Director of Jackson County Health and Human Services, along with several CCOs (AllCare, Jackson Care Connect) and interested health care professionals, formed the Oregon Pain Group (OPG) in order to address the growing negative impact of prescription opioids in Southern Oregon. OPG has identified and developed patient and provider materials and guides (including an Opioid Prescribers Guideline), hosts annual pain conferences, and maintains a website for healthcare professionals and patients (http://www.oregonpainguidance.com/).
- In 2012 and 2013, the Prescription Drug Task Force, appointed by Governor John Kitzhaber, hosted meetings for stakeholders interested in developing and implementing a prescription drug strategy. Interested stakeholders formed the Oregon Coalition for Responsible Use of Meds (OrCRM), whose mission is to "prevent overdose, misuse and abuse of amphetamines and opioids, both prescription and illicit." <sup>15</sup>
- In 2014, the Healthy Columbia Willamette Collaborative convened a workgroup to develop opioid prescribing standards. The workgroup included representatives from four Portland metro area public health departments (Clackamas County; Clark County, WA; Multnomah County; and Washington County), safety net clinics, two CCOs (FamilyCare and Health Share of Oregon), local hospitals, and professional organizations. After nearly a year's work, the workgroup released the Portland Metro Regional Safe Opioid Prescribing Standards in December 2015.
- After conducting reviews of the existing research on back pain treatments, including surgery and opioids, the OHA Health Evidence Research Commission presented a revised back pain guideline to the Quality Health Outcomes Committee meeting in February 2015. Key changes in the treatment of back pain included limiting coverage on the prescription of opioids and adding coverage for non-opioid therapies such as physical

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<sup>&</sup>lt;sup>15</sup> Oregon Coalition for Responsible Use of Meds. http://orcrm.org. Accessed January 12, 2016.

- therapy, chiropractic, acupuncture, and massage. The new guidelines were scheduled for implementation on January 1, 2016, with implementation now delayed.
- In 2015, the Oregon Public Health Division (PHD) received a Prescription Drug
  Overdose Prevention for States grant from the CDC. The purpose of the grant is to assist
  states in enhancing their PDMPs and working with communities, health systems and
  providers to develop and implement interventions to prevent prescription drug overdose.
  As part of this effort, the PHD developed a toolkit to help CCOs develop a more
  comprehensive approach to reducing opioid overdose and misuse
  (https://public.health.oregon.gov/PreventionWellness/SubstanceUse/Opioids/Documents/
  reducing-opioid-overdose-cco-guide.pdf
- In April 2016, OHA convened the Oregon Opioid Prescribing Guidelines Task Force to develop statewide opioid prescribing guidelines and make recommendations to providers.

# Topic Selection and Prioritization

At the April 2015 Quality Health Outcomes Committee (QHOC) meeting, Quality Improvement Directors and Managers divided up into small groups in order to begin preliminary discussions about topics for the second statewide PIP (start date July 1, 2015). The following topics garnered the most support: opioid management; maternal medical home; tobacco prevalence and cessation; one key question: effective contraceptive care; and assessments for children in DHS custody. Following the discussion, Lisa Bui, a Quality Improvement Director at OHA, sent an online survey to all the CCOs asking them to rank the above list according to their top three preferences.

HealthInsight Oregon encouraged, but did not require, CCOs to solicit stakeholder input. It is not clear what, if any, influence enrollees had in the topic prioritization process. The overwhelming majority of CCOs selected the topic of opioid management as their first preference. The selection of opioid management as a topic for the second Statewide PIP received final approval by the OHA Quality Council in June 2015.

# **Standard 2: Study Question**

Standard 2 presents a study question that provides a clear framework for data collection, analysis, and interpretation. The study question should refer to the proposed intervention, a study population (denominator), what is being measured (a numerator), a metric (e.g., average, percentage), and a direction of desired change.

All participating CCOs conduct the PIP with the same topic, indicators, and objectives, but may have different interventions. Consequently, the definitions of the interventions in the study questions are not defined.

Two study questions were developed after finalization of the study metric:

<u>Study question #1</u>: Will local interventions by CCOs decrease the percentage of Medicaid enrollees who filled prescriptions totaling  $\geq 120$  mg MED on at least one day within the measurement year?

Study question #2: Will local interventions by CCOs decrease the percentage of Medicaid enrollees who filled prescriptions totaling  $\geq 90$  mg MED on at least one day within the measurement year?

# **Standard 3: Study Population**

Standard 3 provides a brief description of the study population; lists all inclusion and exclusion criteria for the study population, including enrollment criteria; and provides definitions and data sources, including codes and calculations. If a sample is selected, the sampling methods will be described.

This PIP targets adult and adolescent members who have at least one prescription for an opioid pain reliever filled within the measurement year. The study includes all qualified members, and does not require sampling.

#### Study Population (denominator) Inclusion Criteria and definitions

- Oregon Health Plan (OHP) enrollment (Medicaid/CHIP-enrolled): Enrolled in Medicaid or CHIP at the time of service. The study population includes enrollees with dual eligibility in Medicaid and Medicare and enrollees in CHIP who meet the rest of the study criteria.
- *Continuous enrollment*: The 2015 HEDIS specifications define enrollment as continuous enrollment with only one enrollment gap allowed of no more than 45 days during the measurement year.
- Adults and adolescents: Medicaid enrollees ≥ 12 years on the final day of the measurement year. Data will be analyzed and reported according to the following stratifications: 12–17, 18+, and total.
- Opioid pain reliever: All medications that are covered under the OHA therapeutic class 40: narcotic analgesics. Using the therapeutic class to define opioids allows for year to year variation as NDC codes and medication formulations change. Cough and cold medications are "under the line" (i.e., not covered by OHA) and are not included in the definition. A table of the individual codes for drugs in this class is available as a separate document from HealthInsight Oregon or the OHA Office of Health Analytics.

#### Denominator Exclusion Criteria

- End of life care/palliative care/hospice: The use of high doses of opioids under these circumstances is appropriate, and members who are identified as meeting this criterion according to relevant medical claim codes will be excluded from the study denominator. See Attachment A for a list of the relevant codes.
- *Buprenorphine*: Buprenorphine, alone or in combination with naloxone, is a semi-synthetic partial opioid agonist. The FDA has approved transmucosal, film and sublingual buprenorphine products for the treatment of opioid use disorder (Medication-Assisted Treatment or MAT). MAT drugs are excluded from therapeutic class 40 narcotic

analgesic drug list, so members on these medications ONLY are excluded from the denominator as they do not need to be targeted for MME reduction interventions.

Buprenorphine transdermal patches and injections are not approved for use in MAT, and are included in therapeutic class 40 narcotic analysis drug list. OHA data analysis from July 2016 revealed that 0.04% of opioid medication claims for the study population were for buprenorphine, and those claims were for transdermal buprenorphine patches (Butrans®).

# Standard 4: Study Indicator

Standard 4 provides a definition of the numerator (what is being measured) and the denominator; defines key terms; describes the target goal; discusses the basis for adopting the indicator as a valid proxy for enrollee outcomes, satisfaction, or quality of care; lists all inclusion and exclusion criteria for the numerator (what is being measured), including enrollment criteria; and provides definitions and data sources, including codes and calculations.

Statewide PIP metric: Percentage of OHP enrollees aged 12 years and older who filled prescriptions for opioid pain relievers of at least  $\geq$  120 mg MED on at least one day, and the percentage of enrollees with at least  $\geq$  90 mg MED on at least one day during the measurement year.

#### Metric selection

Following the topic confirmation, HealthInsight Oregon conducted a literature review and identified a list of potential metrics for a Statewide PIP on the management of opioid prescription drugs. The list was reviewed by the OHA Office of Health Analytics department, several members of the HealthInsight Oregon Prescription Drug Monitoring Program (PDMP) research team and the Healthy Columbia Willamette Collaborative opioid monitoring workgroup. The documents were discussed by the medical directors at the July 2015 QHOC meeting, and were evaluated in more depth by the Quality and Performance Improvement (QPI) workgroup in the afternoon QHOC session. The QPI workgroup selected the following three metrics for further consideration:

- 1. Percentage of individuals on opioid doses ≥120 mg MED per day
- 2. Proportion of individuals with overlapping prescriptions for opioids and benzodiazepines
- 3. Percentage of adolescents and adults, previously naïve to opioid pain reliever utilization, who became chronic users of opioid pain relievers (this metric is utilized by the Minnesota Department of Human Services and is referenced in this report as "the Minnesota metric.")<sup>16</sup>

Following the QPI workgroup, HealthInsight Oregon, OHA and OHA Health Analytics met to discuss the metric specifications for each of the three metrics and developed a list of clarifications that needed to be presented to the larger group for final decisions. A handout of

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<sup>&</sup>lt;sup>16</sup> Schiff, J. Analysis of Opioid Utilization CYs 2011-2014, Minnesota Department of Human Services, Office of the Medical Director. August 20, 2015.

issues needing clarification along with a table of individual with opioid prescriptions for calendar year 2014 (analyzed according to CCO, age and 6+ prescriptions) was distributed at the September 2015 QHOC meeting. Discussions at the Medical Director or QPI sessions produced no consensus on metric selection. Copies of the three metric technical specifications along with a list of pros/cons gathered from past discussions were emailed to CCO medical directors and QI managers, along with a survey asking each of the 16 CCOs to submit a single vote for one of the three metrics. These are the survey results:

- Metric #1 9 votes
- Metric #2 2 votes
- Metric #3 5 votes

This information, along with feedback from the Oregon Public Health Division and the CCO Pharmacy Directors workgroup, was presented to OHA leadership. At OHA leadership's request, Health Analytics conducted data analyses of each of the CCOs' Medicaid populations using the Minnesota Metric eligibility criteria in order to determine the metric's feasibility. The analyses demonstrated that four CCOs had numerators of less than 40, and another two CCOs had numerators less than 50. Although OHA leadership was interested in the Minnesota metric, the small study populations presented a barrier to implementation, as was demonstrated in the first Statewide PIP on diabetic monitoring in the SPMI population. Instead, OHA leadership selected the ≥120 mg MED metric as the Statewide PIP metric and decided to investigate other avenues for a metric focused on naïve to chronic users, such as review by the OHA Scoring and Metrics Committee.

Once a decision was made to monitor the management of opioid pain relievers by measuring a dosing threshold, concerns were raised about the dosing threshold level itself. Although experts agree that there is a dose-related risk for overdose and adverse effects<sup>17</sup>, they have not achieved consensus on a dosage limit performance measure. The CDC has invited subject matter experts and the public to review and comment on a draft Guideline for Prescribing Opioids for Chronic Pain. The draft CDC guidelines recommend a dosing threshold of  $\leq$  90 mg MED per day. The 2015 edition of Washington State Interagency Guideline on Prescribing Opioids for Pain included a recommendation from the 2010 edition that prescribers avoid prescribing opioids >120 mg/day MED without first consulting with a trained pain specialist. Citing studies from the literature, the Washington State Guideline emphasizes that "there is no completely safe opioid dose." The Prescriber of the Washington State Guideline emphasizes that "there is no completely safe opioid dose."

<sup>21</sup> See note 15.

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<sup>&</sup>lt;sup>17</sup> Washington State Agency Medical Directors' Group. Interagency Guideline on Prescribing Opioids for Pain. 3rd Edition, June 2015. http://www.agencymeddirectors.wa.gov/Files/2015AMDGOpioidGuideline.pdf.

<sup>&</sup>lt;sup>18</sup> Centers for Disease Control and Prevention. Draft CDC Guideline for Prescribing Opioids for Chronic Pain – United States, 2016. http://www.regulations.gov/#!documentDetail;D=CDC-2015-0112-0002. Accessed January 12, 2016.

<sup>&</sup>lt;sup>19</sup> Dunn KM, Saunders KW, Rutter CM, et al. Opioid prescriptions for chronic pain and overdose: a cohort study. *Ann Intern Med.* 2010. Cited in Washington State Agency Medical Directors' Group. Interagency Guideline on Prescribing Opioids for Pain, 3<sup>rd</sup> Edition, June 2015.

<sup>&</sup>lt;sup>20</sup> Fulton-Kehoe D, Garg RK, Turner JA, et al. Opioid poisonings and opioid adverse effects in workers in Washington State. *Am J Ind Med*. 2013. Cited in Washington State Agency Medical Directors' Group. Interagency Guideline on Prescribing Opioids for Pain, 3<sup>rd</sup> Edition, June 2015.

Data provided by OHA Office of Health Analytics revealed that CCOs that had been working on prescribing opioid issues for several years had significantly lower percentages of members on ≥120 mg MED per day than those organizations just beginning work in this area. Experienced CCOs expressed concern that given the lower percentages, it would be difficult to demonstrate improvement over a short period of time. After discussing additional pros and cons of different dosage levels at the November QHOC meeting, HealthInsight Oregon surveyed CCOs as to their study metric dosage threshold preference. Each of the sixteen CCOs was asked to select only one option. The results of the survey are as follows (PacificSource–Central Oregon and PacificSource–Columbia Gorge voted as one plan):

- $\geq$  90 mg MED 7
- $\geq 100 \text{ mg MED} 1$
- $\geq 120 \text{ mg MED} 7$

Several CCOs that supported the  $\geq$  120 mg MED threshold, noted that they had already begun educating providers and implementing interventions based on that threshold assumption. The survey results, along with CCO comments, were presented to the OHA Quality Directors Committee meeting. The committee decided that this PIP should measure both the 90 mg and the 120 mg thresholds.

#### CCO Level

While data will be collected on both numerators ( $\geq 120$  mg and  $\geq 90$  mg MED/day) at the statewide level, CCOs have the option of collecting data internally on either or both of the metrics. Because CCOs differ significantly in terms of study baseline rates (percentage of members with opioid doses  $\geq 120$  mg MED/day or  $\geq 90$  mg MED/day) and existing implementation strategies, target goals will be established at the CCO level.

# **Study Numerators**

Numerator inclusion criteria and definitions:

- Study eligible (meet the denominator definitions)
- 90 mg and 120 mg MED per day: Daily MED is calculated as drug strength multiplied by quantity divided by days' supply, multiplied by the conversion factor identified by the CDC (the table of morphine equivalent conversion factors is available as a separate document from the OHA Office of Health Analytics). MED will be first calculated per filled prescription, applied to the date range according to the fill date and days' supply and then summed for patient total. Any overlapping prescriptions should be summed on each day of overlap.

Any enrollee in the denominator who filled prescriptions for opioid pain relievers of at least  $\geq$  120 mg MED or at least  $\geq$  90 mg MED for one day during the measurement year will be included in the numerators.

# Standard 5: Data Collection and Data Analysis Plan

Standard 5 describes data collection and data validation procedures, including a plan for addressing errors and missing data, and presents a clear data analysis plan, including time frames for the measurement and intervention periods and an appropriate statistical test to measure differences between the baseline and remeasurement periods.

#### Data Collection

#### OHA

OHA uses an encrypted system of web-based electronic mailboxes to receive Medicaid claims and encounter data from CCOs. This system ensures that data transfers are consistent with HIPAA confidentiality provisions. The state then uses the Medicaid Management Information System (MMIS) claims adjudication engine to process the CCO encounter data.

From MMIS, data is transferred to the Decision Support Surveillance and Utilization Review System (DSSURS), where it is organized to facilitate reporting and other data extraction. The Office of Health Analytics pulls data from DSSURS, applies the continuous enrollment and exclusion criteria, and then calculates the study indicator for the measurement periods and for monthly reports to each CCO.

#### CCO level

CCOs are expected to track the study indicator internally. OHA has offered all CCOs technical assistance around collecting data and applying the technical metric specifications.

# Data Verification and Validation

#### OHA

At the end of the remeasurement period, OHA allows for a 90-day period to receive all CCO claims (a 90-day period to collect and process claims is routine practice). OHA then calculates the study data and posts member-level data on each CCO's secure FTP sites. CCOs are asked to review the information and send any revisions/questions to the designated OHA contact, who works with the Office of Health Analytics to evaluate the CCO queries.

### CCO level

Quality management personnel at each CCO are responsible for reviewing and comparing OHA monthly reports against their own data reports in order to reconcile any discrepancies. Before submitting data to the state, CCOs perform automated edits and validation checks to ensure completeness and correctness of submitted claims. Currently, there is no contractual requirement for the CCOs to perform an encounter data validation process in accordance with the CMS standards for encounter data validation.

#### **Study Time Periods**

- **Baseline measurement:** January 1, 2014 December 31, 2014
- First remeasurement: January 1, 2016 December 31, 2016
- **Second remeasurement:** January 1, 2017 December 31, 2017

CCOs, OHA, and HealthInsight Oregon agreed on the date range for the first remeasurement period based on the expected start date for intervention implementation for many of the CCOs. A non-consecutive baseline measurement period was selected because a longer period of time would allow those CCOs that have already been working on the study topic for several years more opportunity to demonstrate improvement in the study indicator.

The study results for each study indicator at the statewide level will be tested for a statistically significant difference between baseline and remeasurement periods using a probability level of  $p \le .05$ . A chi-square test is appropriate for the categorical data that will result from the indicators.

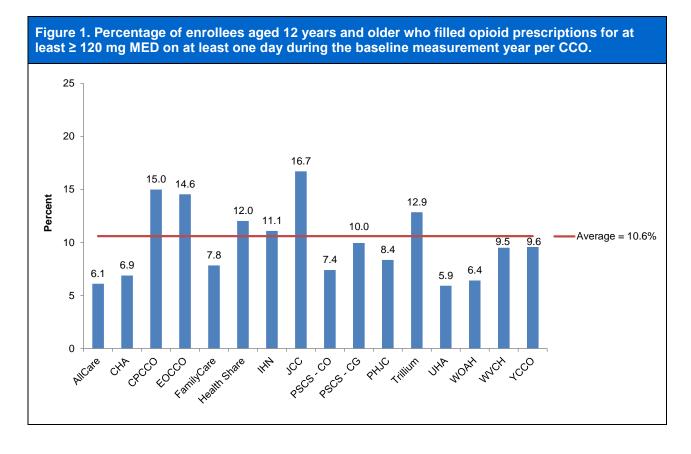
# Standard 6: Study Results

Standard 6 presents results according to the data analysis plan, including the study indicator, the original data used to compute the indicator, and a statistical test to measure differences between the baseline and remeasurement periods; and discusses any other data analyses for factors that may affect the study results.

Table 1 shows the baseline and results of the first measurement for the  $\geq$  120 mg MED metric.

| Table 1. Aggregated statewide results: Percentage of OHP enrollees aged 12 years and older who filled opioid prescriptions for at least ≥ 120 mg MED on at least one day during the measurement year. |   |                     |  |  |  |  |  |  |  |
|---|---|---------------------|--|--|--|--|--|--|--|
| Study Indicator   | <b>Baseline</b> January 1 – December 31, 2014 | First remeasurement |  |  |  |  |  |  |  |
| Numerator   | 11,945  |                     |  |  |  |  |  |  |  |
| Denominator   | 112,768                                       |                     |  |  |  |  |  |  |  |
| Calculated indicator  | 10.6%   |                     |  |  |  |  |  |  |  |

Below is a graph illustrating the baseline rates for this metric among the 16 CCOs (Figure 1).



In response to CCO interest in targeting chronic users of high amounts of prescription opioids, OHA analyzed individual CCO baseline (calendar year 2014) study data according to 30-day consecutive use at  $\geq$  120 mg MED. Below is a graph that illustrates the range among CCOs (Figure 2).

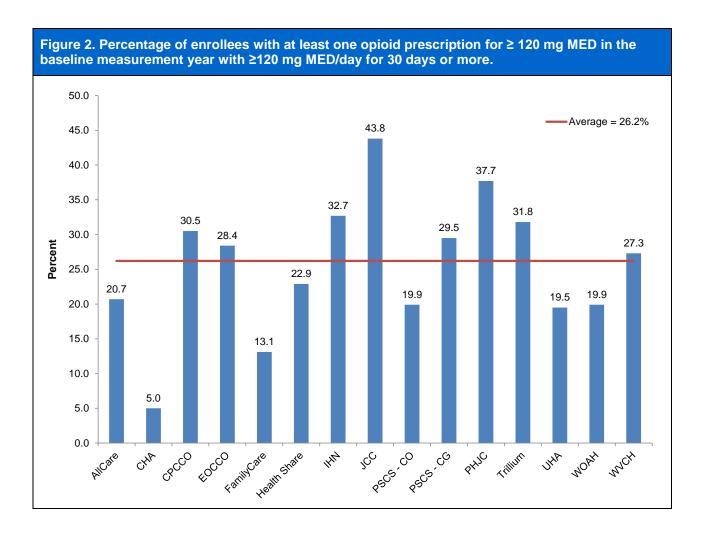
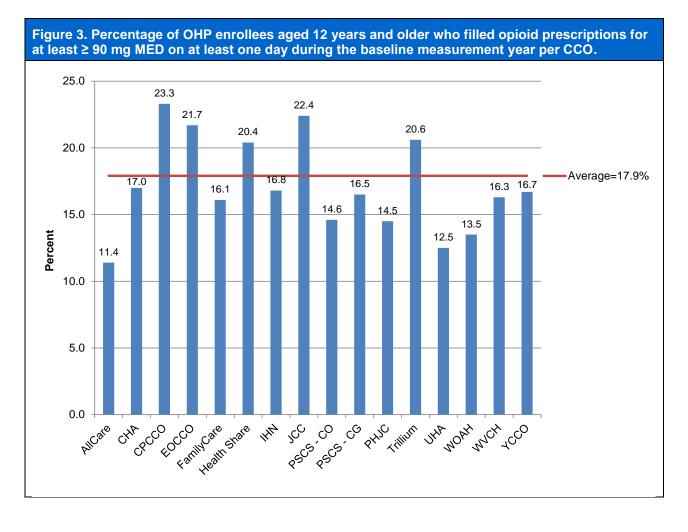


Table 2 shows the baseline and results of the first remeasurement for the  $\geq$  90 mg MED metric.

| Table 2. Aggregated statewide results: Percentage of OHP enrollees aged 12 years and older who filled opioid prescriptions for at least ≥ 90 mg MED on at least one day during the measurement year. |                               |  |  |  |  |  |  |  |
|--|-------------------------------|--|--|--|--|--|--|--|
|  | Baseline                      |  |  |  |  |  |  |  |
| Study Indicator  | January 1 – December 31, 2014 |  |  |  |  |  |  |  |
| Numerator  | 20,235                        |  |  |  |  |  |  |  |
| Denominator  | 112,768                       |  |  |  |  |  |  |  |
| Calculated indicator   | 17.9%                         |  |  |  |  |  |  |  |

Figure 3 illustrates the range of baseline rates for this metric among the 16 CCOs.



OHA also analyzed the baseline 90 mg MED metric data in order to determine the number and percentage of members on this dosage for consecutive 30 days or more. Figure 4 illustrates the range among CCOs.

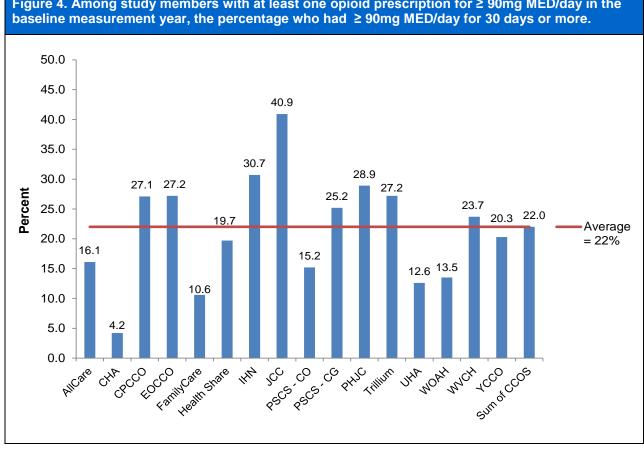


Figure 4. Among study members with at least one opioid prescription for ≥ 90mg MED/day in the

Study numerator and denominator data for both study metrics according to CCO are in Attachment B.

#### Additional analyses

Demographic analyses of the statewide study denominator and chronic high user numerator populations indicate that Latino/Hispanic, Asian, and Race/ethnicity unknown enrollees are underrepresented in the numerator, while Caucasian/White enrollees are overrepresented. The complete analysis can be found in Attachment D.

CCOs have been encouraged to conduct additional analyses of their own data in order to better understand their study populations and improve performance tracking and monitoring.

# **Standard 7: Interpretation of Results**

Standard 7 lists any changes to the study design and discusses the effect of those changes on the comparability of data and interpretation of results; describes any factors that threaten the internal or external validity of the study; discusses whether the intervention was implemented as planned; describes any improvement in enrollee health, functional status, or satisfaction and accomplishment of target goals; discusses how the intervention influenced the results; discusses lessons learned during the PIP process; draws a conclusion about the study results based on the above factors; and describes next steps for the study.

# Data validity and limitations:

- In the beginning of August 2016, OHA and HealthInsight Oregon clarified the study denominator criteria around buprenorphine products. The OHA data analytics team reported that only 0.04% of study medication claims were for buprenorphine, having only minimal impact on the study results. Baseline and first remeasurement results can still be considered comparable.
- Data doesn't reflect ongoing improvement efforts, e.g. members who were tapered off of high dose opioids during the measurement year still appear in the numerator, and the intervention success won't be evident until the following measurement year data collection.
- Members might be included in the numerator because of administrative reasons (one day overlap in prescriptions) that do not reflect the member's ongoing opioid use. However, this PIP is focused on opioid safety, and even one day at 120mg MED or 90mg MED puts members at risk. Their inclusion in the numerator, therefore, is appropriate.
- The topic of opioid safety is a complex one, and the study metrics address only one safety aspect (high dosages and chronic high use). CCO efforts around other and equally important opioid safety issues, such as co-prescribing and the transition from naïve to chronic use, are not reflected in the study metrics.

#### Possible confounding factors:

- Other organizations (see Standard 1) will be implementing interventions as part of their own strategies to address opioid misuse and abuse, independent of the CCO-initiated interventions, which could have contribute to a decrease in the first remeasurement study indicator results.
- The delay in the implementation of the OHA back pain guidelines (originally scheduled to begin January 1, 2016 was implemented July 1, 2016) disrupted CCOs' plans to develop and fund non-opioid therapies, and probable negative impact on improvement in the study indicators.
- On December 14, 2015, the CDC released a draft of the first national guidelines on prescribing opioids for pain (the finalized version is pending at the time of this report). The draft guidelines and media attention surrounding their release could have influenced provider prescribing practices, separate from any local CCO-initiated interventions.

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<sup>&</sup>lt;sup>22</sup> The CDC. Draft CDC Guideline for Prescribing Opioids for Chronic Pain. http://www.cdc.gov/drugoverdose/prescribing/guideline.html.

In July 2016, Congress passed the Comprehensive Addiction and Recovery Act (CARA), which increases access to naloxone by expanding prescribing authority to physician assistants and nurse practitioners. In addition, CARA allowed the federal government to distribute grants to assist communities in developing prevention, treatment and recovery programs.<sup>23</sup>

# **Standard 8: Improvement Strategies**

Standard 8 describes and documents the implementation of the intervention(s) and discusses the basis for adopting the intervention; how the intervention can be reasonably expected to result in measurable improvement; the cultural and linguistic appropriateness of the intervention; a tracking and monitoring plan (providing evidence of how the intervention was or will be implemented as planned); barriers encountered during implementation of the intervention and how they were addressed; and how the intervention will be adapted, adopted, or abandoned.

Each CCO has been tasked with developing, implementing, and documenting an improvement strategy to address the overarching, statewide study topic of improving the safety of opioid management. Because they differ significantly in terms of geography, level of integration of physical, mental and oral health systems, previous attempts in addressing this topic, and population size, the CCOs were advised to develop strategies for this PIP in a manner that met the needs of their local communities. HealthInsight Oregon provided the CCOs with the criteria and scoring matrix for this standard, as well as ongoing technical assistance.

OHA required that CCOs submit quarterly reports documenting their progress on the Statewide PIP, beginning with the January 2016 quarterly report.

#### Standard 9: Repeated Measurement of the Study Indicator

Standard 9 provides study results for two measurement periods, including the study indicator, original data used to compute the indicator, and a statistical test of group differences; provides any other data analyses for factors that may affect the study results; and discusses how the intervention, consistency of methodology, and any confounding factors affected the study results in the second remeasurement period.

This standard will not be completed until after the second remeasurement.

# **Standard 10: Sustained Improvement**

Standard 10 discusses whether or not goals were met and sustained; whether improvement in the study indicator, as well as in enrollee health, functional status, or satisfaction was achieved; discusses lessons learned for the PIP and the system as a whole; and reports next steps.

This standard will not be completed until after the second remeasurement.

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<sup>&</sup>lt;sup>23</sup> Text of the Comprehensive Addiction and Recovery Act of 2016. https://www.govtrack.us/congress/bills/114/s524/text. Accessed on July 14, 2016

# Statewide PIP, Attachment A: Denominator Exclusion Codes

| Diagnose | es and CPT codes related to: en               | d-of-life care, palliative care, or hospice care  |
|----------|---|---|
| DX       |   |   |
| V66      | Convalescence and palliative care             |   |
| V667     | Encounter for palliative care                 |   |
| Z515     | Encounter for palliative care                 |   |
| СРТ      |   |   |
| 4350F    | Cnslng Provided Symp Mngmnt                   | Counseling Provided On Symptom Management, End Of Life Decisions, And Palliation (Dem)                      |
| 4553F    | Pt Asst Re End Life Issues                    | Patient Offered Assistance In Planning For End Of Life Issues (Als)   |
| 99377    | Hospice Care Supervision                      | Physician Supervision Of Patient Hospice Services, 15-29 Minutes Per Month                                  |
| 99378    | Hospice Care Supervision                      | Physician Supervision Of Patient Hospice Services, 30 Minutes Or More Per Month                             |
| D9110    | Tx Dental Pain Minor Proc                     | Palliative (Emergency) Treatment Of Dental Pain-Minor Procedures  |
| G0065    | Physician Supervision Of A<br>Hospice Patient | Physician Supervision Of A Hospice Patient  |
| G0151    | Hhcp-Serv Of Pt,Ea 15 Min                     | Services Performed By A Qualified Physical Therapist In The Home Health Or Hospice Setting, Each 15 minutes |
| G0152    | Hhcp-Serv Of Ot,Ea 15 Min                     | Services Performed By A Qualified Occupational Therapist In The Home Health Or Hospice Setting, Each        |
| G0153    | Hhcp-Svs Of S/L Path,Ea 15mn                  | Services Performed By A Qualified Speech-Language Pathologist In The Home Health Or Hospice Setting,        |
| G0154    | Hhcp-Svs Of Rn,Ea 15 Min                      | Direct Skilled Nursing Services Of A Licensed Nurse (Lpn Or Rn) In The Home Health Or Hospice Setting       |

| G0155 | Hhcp-Svs Of Csw,Ea 15 Min    | Services Of Clinical Social Worker In Home Health Or Hospice Settings, Each 15 Minutes               |
|-------|------------------------------|--|
| G0156 | Hhcp-Svs Of Aide,Ea 15 Min   | Services Of Home Health/Hospice Aide In Home Health Or Hospice Settings, Each 15 Minutes             |
| G0157 | Hhc Pt Assistant Ea 15       | Services Performed By A Qualified Physical Therapist Assistant In The Home Health Or Hospice Setting |
| G0158 | Hhc Ot Assistant Ea 15       | Services Performed By A Qualified Occupational Therapist Assistant In The Home Health Or Hospice Set |
| G0182 | Hospice Care Supervision     | Physician Supervision Of A Patient Under A Medicare-Approved Hospice (Patient Not Present) Requiring |
| G0337 | Hospice Evaluation Preelecti | Hospice Evaluation And Counseling Services, Pre-Election   |
| G8768 | Doc Med Reas No Lipid Profle | Documentation Of Medical Reason(S) For Not Performing Lipid Profile (E.G., Patients With Palliative  |
| G8892 | Doc Med Reas No Ldl-C Test   | Documentation Of Medical Reason(S) For Not Performing Ldl-C Test (E.G. Patients With Palliative Goal |
| G9380 | Off Assis Eol Iss            | Patient Offered Assistance With End Of Life Issues During The Measurement Period                     |
| G9381 | Doc Med Reas No Offer Eol    | Documentation Of Medical Reason(S) For Not Offering Assistance With End Of Life Issues (Eg, Patient  |
| G9382 | No Off Assis Eol             | Patient Not Offered Assistance With End Of Life Issues During The Measurement Period                 |
| G9433 | Death, Nhres, Hospice        | Death, Permanent Nursing Home Resident Or Receiving Hospice Or Palliative Care Any Time During The M |
| G9433 | Death, Nhres, Hospice        | Death, Permanent Nursing Home Resident Or Receiving Hospice Or Palliative Care Any Time During The M |
| HC100 | Omap: Nf Hospice Care        | Omap: Nf Hospice Care  |
| Q5001 | Hospice Or Home Hlth In Home | Hospice Or Home Health Care Provided In Patient'S Home/Residence                                     |
| Q5002 | Hospice/Home Hlth In Asst Lv | Hospice Or Home Health Care Provided In Assisted Living Facility                                     |
| Q5003 | Hospice In Lt/Non-Skilled Nf | Hospice Care Provided In Nursing Long Term Care Facility (Ltc) Or Non-Skilled Nursing Facility (Nf)  |
| Q5004 | Hospice In Snf               | Hospice Care Provided In Skilled Nursing Facility (Snf)  |

| Q5005 | Hospice, Inpatient Hospital  | Hospice Care Provided In Inpatient Hospital  |
|-------|------------------------------|--|
| Q5006 | Hospice In Hospice Facility  | Hospice Care Provided In Inpatient Hospice Facility  |
| Q5007 | Hospice In Ltch              | Hospice Care Provided In Long Term Care Facility   |
| Q5008 | Hospice In Inpatient Psych   | Hospice Care Provided In Inpatient Psychiatric Facility  |
| Q5009 | Hospice/Home Hlth, Place Nos | Hospice Or Home Health Care Provided In Place Not Otherwise Specified (Nos)                          |
| Q5010 | Hospice Home Care In Hospice | Hospice Home Care Provided In A Hospice Facility   |
| S0255 | Hospice Refer Visit Nonmd    | Hospice Referral Visit (Advising Patient And Family Of Care Options) Performed By Nurse, Social Work |
| S0257 | End Of Life Counseling       | Counseling And Discussion Regarding Advance Directives Or End Of Life Care Planning And Decisions, W |
| S0271 | Home Hospice Case 30 Days    | Physician Management Of Patient Home Care, Hospice Monthly Case Rate (Per 30 Days)                   |
| S5150 | Unskilled Respite Care /15m  | Unskilled Respite Care, Not Hospice; Per 15 Minutes  |
| S5151 | Unskilled Respitecare /Diem  | Unskilled Respite Care, Not Hospice; Per Diem  |
| S9126 | Hospice Care, In The Home, P | Hospice Care, In The Home, Per Diem  |
| T2042 | Hospice Routine Home Care    | Hospice Routine Home Care; Per Diem  |
| T2043 | Hospice Continuous Home Care | Hospice Continuous Home Care; Per Hour   |
| T2044 | Hospice Respite Care         | Hospice Inpatient Respite Care; Per Diem   |
| T2045 | Hospice General Care         | Hospice General Inpatient Care; Per Diem   |
| T2046 | Hospice Long Term Care, R&B  | Hospice Long Term Care, Room And Board Only; Per Diem  |

# Statewide PIP, Attachment B: Baseline Measurement Period Results

Among OHP enrollees aged 12 years and older who had at least one prescription for an opioid pain reliever, the percentage who filled prescriptions totaling ≥ 120mg morphine equivalent dose (MED) on at least one day within the measurement year. Measurement year: 1/1/2014 – 12/31/2014.

| ,            | deno:     | num:      | rate: 12–17 | deno:   | num:    | rate: 18+ | deno:  |            | rate: |
|--------------|-----------|-----------|-------------|---------|---------|-----------|--------|------------|-------|
| CCO          | 12–17 y/o | 12–17 y/o | y/o         | 18+ y/o | 18+ y/o | y/o       | Total  | num: Total | Total |
| ALLCARE      | 331       | 6         | 1.8%        | 6240    | 396     | 6.3%      | 6571   | 402        | 6.1%  |
| CHA          | 95        | 7         | 7.4%        | 1167    | 80      | 6.9%      | 1262   | 87         | 6.9%  |
| CPCCO        | 209       | 7         | 3.3%        | 3792    | 593     | 15.6%     | 4001   | 600        | 15.0% |
| EOCCO        | 431       | 10        | 2.3%        | 5512    | 855     | 15.5%     | 5943   | 865        | 14.6% |
| FAMILYCARE   | 621       | 10        | 1.6%        | 11,058  | 906     | 8.2%      | 11679  | 916        | 7.8%  |
| FFS          | 497       | 4         | 0.8%        | 8638    | 894     | 10.3%     | 9136   | 898        | 9.8%  |
| HEALTH SHARE | 1538      | 40        | 2.6%        | 26,218  | 3301    | 12.6%     | 27752  | 3340       | 12.0% |
| IHN          | 480       | 10        | 2.1%        | 7820    | 911     | 11.6%     | 8299   | 921        | 11.1% |
| JCC          | 240       | 7         | 2.9%        | 3488    | 616     | 17.7%     | 3728   | 623        | 16.7% |
| PSCS - CO    | 475       | 8         | 1.7%        | 6993    | 545     | 7.8%      | 7468   | 553        | 7.4%  |
| PSCS - CG    | 82        | 1         | 1.2%        | 1143    | 121     | 10.6%     | 1225   | 122        | 10.0% |
| PHJC         | 68        | 0         | 0.0%        | 1391    | 122     | 8.8%      | 1459   | 122        | 8.4%  |
| TRILLIUM     | 665       | 14        | 2.1%        | 12,861  | 1726    | 13.4%     | 13526  | 1740       | 12.9% |
| UHA          | 189       | 3         | 1.6%        | 3711    | 228     | 6.1%      | 3900   | 231        | 5.9%  |
| WOAH         | 144       | 3         | 2.1%        | 2986    | 198     | 6.6%      | 3130   | 201        | 6.4%  |
| WVCH         | 643       | 10        | 1.6%        | 9313    | 937     | 10.1%     | 9956   | 947        | 9.5%  |
| YCCO         | 242       | 6         | 2.5%        | 2627    | 269     | 10.2%     | 2869   | 275        | 9.6%  |
| SUM OF CCOs  | 6453      | 142       | 2.2%        | 106,320 | 11804   | 11.1%     | 112768 | 11945      | 10.6% |

<sup>&</sup>quot;deno" = denominator; "num" = numerator; "Total" = ages 12-17 plus ages 18+

Data extraction date: 12/28/2015, Office of Health Analytics, OHA

Note: Physician-assisted opioid injection claims do not have days of supply, or quantity of dispensed units. Therefore, MED cannot be calculated and these claims are not included in denominator calculation.

Among OHP enrollees aged 12 years and older who had at least one prescription for an opioid pain reliever, the percentage who filled prescriptions totaling ≥ 90mg MED on at least one day within the measurement year.

Measurement year: 1/1/2014 - 12/31/2014

| ссо          | deno: 12-<br>17 y/o | num: 12–<br>17 y/o | rate: 12-<br>17 y/o | deno:<br>18+ y/o | num:<br>18+ y/o | rate: 18+<br>years old | deno:<br>Total | num: Total | rate:<br>Total |
|--------------|---------------------|--------------------|---------------------|------------------|-----------------|------------------------|----------------|------------|----------------|
| ALLCARE      | 331                 | 7                  | 2.1%                | 6240             | 739             | 11.8%                  | 6571           | 746        | 11.4%          |
| СНА          | 95                  | 13                 | 13.7%               | 1167             | 202             | 17.3%                  | 1262           | 215        | 17.0%          |
| CPCCO        | 209                 | 16                 | 7.7%                | 3792             | 915             | 24.1%                  | 4001           | 931        | 23.3%          |
| EOCCO        | 431                 | 32                 | 7.4%                | 5512             | 1258            | 22.8%                  | 5943           | 1290       | 21.7%          |
| FAMILYCARE   | 621                 | 40                 | 6.4%                | 11058            | 1846            | 16.7%                  | 11679          | 1886       | 16.1%          |
| FFS          | 497                 | 25                 | 5.0%                | 8638             | 1574            | 18.2%                  | 9135           | 1599       | 17.5%          |
| HEALTH SHARE | 1538                | 89                 | 5.8%                | 26218            | 5560            | 21.2%                  | 27756          | 5648       | 20.4%          |
| IHN          | 480                 | 21                 | 4.4%                | 7820             | 1372            | 17.5%                  | 8300           | 1393       | 16.8%          |
| JCC          | 240                 | 12                 | 5.0%                | 3488             | 824             | 23.6%                  | 3728           | 836        | 22.4%          |
| PSCS - CO    | 475                 | 26                 | 5.5%                | 6993             | 1063            | 15.2%                  | 7468           | 1089       | 14.6%          |
| PSCS - CG    | 82                  | 2                  | 2.4%                | 1143             | 200             | 17.5%                  | 1225           | 202        | 16.5%          |
| PHJC         | 68                  | 1                  | 1.5%                | 1391             | 210             | 15.1%                  | 1459           | 211        | 14.5%          |
| TRILLIUM     | 665                 | 39                 | 5.9%                | 12861            | 2744            | 21.3%                  | 13526          | 2783       | 20.6%          |
| UHA          | 189                 | 6                  | 3.2%                | 3711             | 480             | 12.9%                  | 3900           | 486        | 12.5%          |
| WOAH         | 144                 | 7                  | 4.9%                | 2986             | 414             | 13.9%                  | 3130           | 421        | 13.5%          |
| WVCH         | 643                 | 27                 | 4.2%                | 9313             | 1593            | 17.1%                  | 9956           | 1620       | 16.3%          |
| YCCO         | 242                 | 16                 | 6.6%                | 2627             | 462             | 17.6%                  | 2869           | 478        | 16.7%          |
| SUM OF CCOs  | 6453                | 354                | 5.5%                | 106320           | 19882           | 18.7%                  | 112773         | 20235      | 17.9%          |

<sup>&</sup>quot;deno" = denominator; "num" = numerator; "Total" = ages 12-17 plus ages 18+

Data extraction date 12/28/2015, Office of Health Analytics, OHA.

Note: Physician-assisted opioid injection claims do not have days of supply, or quantity of dispensed units. Therefore, MED cannot be calculated and these claims are not included in denominator calculation.

# Statewide PIP, Attachment C: Chronic High Opioid Users

Percentage of patients on opioid doses ≥ 120mg Morphine Equivalent Dosage (MED) per day for 30 consecutive days or more. Measurement year: 1/1/2014 – 12/31/2014.

| weasurement yea | ai. 1/1/20            | 14 - 12/31           | 72017.              |           |             |              |                             |               |                |                                    |   |
|-----------------|-----------------------|----------------------|---------------------|-----------|-------------|--------------|-----------------------------|---------------|----------------|------------------------------------|---|
| ссо             | deno:<br>12–17<br>y/o | num:<br>12–17<br>y/o | rate: 12-<br>17 y/o | deno: 18+ | num:<br>18+ | rate:<br>18+ | deno:<br>total <sup>1</sup> | num:<br>total | rate:<br>total | 120 MED<br>metric num <sup>2</sup> | rate: ≥ 30d in<br>120 mg MED<br>population <sup>3</sup> |
| ALLCARE         | 331                   | 0                    | 0.0%                | 6240      | 83          | 1.3%         | 6571                        | 83            | 1.3%           | 402                                | 20.7%   |
| СНА             | 95                    | 0                    | 0.0%                | 1167      | 4           | 0.3%         | 1262                        | 4             | 0.3%           | 87                                 | 5.0%  |
| CPCCO           | 209                   | 0                    | 0.0%                | 3792      | 183         | 4.8%         | 4001                        | 183           | 4.6%           | 600                                | 30.5%   |
| EOCCO           | 431                   | 1                    | 0.2%                | 5512      | 245         | 4.4%         | 5943                        | 246           | 4.1%           | 865                                | 28.4%   |
| FAMILYCARE      | 621                   | 0                    | 0.0%                | 11,058    | 120         | 1.1%         | 11679                       | 120           | 1.0%           | 916                                | 13.1%   |
| FFS             | 498                   | 0                    | 0.0%                | 8638      | 258         | 3.0%         | 9136                        | 258           | 2.8%           | 898                                | 28.7%   |
| HEALTH SHARE    | 1538                  | 0                    | 0.0%                | 26,214    | 766         | 2.9%         | 27752                       | 766           | 2.8%           | 3341                               | 22.9%   |
| IHN             | 480                   | 0                    | 0.0%                | 7819      | 301         | 3.8%         | 8299                        | 301           | 3.6%           | 921                                | 32.7%   |
| JCC             | 240                   | 0                    | 0.0%                | 3488      | 273         | 7.8%         | 3728                        | 273           | 7.3%           | 623                                | 43.8%   |
| PSCS - CO       | 475                   | 0                    | 0.0%                | 6993      | 110         | 1.6%         | 7468                        | 110           | 1.5%           | 553                                | 19.9%   |
| PSCS - CG       | 82                    | 0                    | 0.0%                | 1143      | 36          | 3.1%         | 1225                        | 36            | 2.9%           | 122                                | 29.5%   |
| PHJC            | 68                    | 0                    | 0.0%                | 1391      | 46          | 3.3%         | 1459                        | 46            | 3.2%           | 122                                | 37.7%   |
| TRILLIUM        | 665                   | 0                    | 0.0%                | 12,861    | 554         | 4.3%         | 13526                       | 554           | 4.1%           | 1740                               | 31.8%   |
| UHA             | 189                   | 0                    | 0.0%                | 3711      | 45          | 1.2%         | 3900                        | 45            | 1.2%           | 231                                | 19.5%   |
| WOAH            | 144                   | 0                    | 0.0%                | 2986      | 40          | 1.3%         | 3130                        | 40            | 1.3%           | 201                                | 19.9%   |
| WVCH            | 643                   | 0                    | 0.0%                | 9313      | 259         | 2.8%         | 9956                        | 259           | 2.6%           | 947                                | 27.3%   |
| YCCO            | 242                   | 0                    | 0.0%                | 2627      | 63          | 2.4%         | 2869                        | 63            | 2.2%           | 275                                | 22.9%   |
| Sum of CCOs     | 6453                  | 1                    | 0.0%                | 106,315   | 3128        | 2.9%         | 112,768                     | 3129          | 2.8%           | 11946                              | 26.2%   |

<sup>&</sup>quot;deno" = denominator; "num" = numerator; "Total" = ages 12-17 plus ages 18+

Data extraction date: 12/28/2015, Office of Health Analytics, OHA

Note: Physician-assisted opioid injection claims do not have days of supply, or quantity of dispensed units. Therefore, MED cannot be calculated and these claims are not included in denominator calculation.

<sup>&</sup>lt;sup>1</sup> Among enrollees with at least one opioid prescription in the measurement year (study denominator), the percentage of people who had ≥120mg MED/day for 30 days or more.

<sup>&</sup>lt;sup>2</sup> Number of enrollees with opioid prescriptions of ≥120mg MED/day for at least one day during the measurement year (study metric #1 numerator).

<sup>&</sup>lt;sup>3</sup> Among enrollees with at least one day of ≥120mg MED/day (study numerator #1), the percentage of chronic high users (≥ 30 days at 120mg MED).

# Percentage of patients on opioid doses ≥ 90mg Morphine Equivalent Dosage (MED) per day for 30 consecutive days

or more. Measurement year: 1/1/2014 - 12/31/2014

|              | deno:<br>12-17 | num:<br>12–17 | rate:<br>12–17 | deno:   | num:    | rate:   | deno:   | num:  | rate:              | 90MED<br>metric  | rate: ≥30d<br>in 90mg |
|--------------|----------------|---------------|----------------|---------|---------|---------|---------|-------|--------------------|------------------|-----------------------|
| CCO          | y/o            | y/o           | y/o            | 18+ y/o | 18+ y/o | 18+ y/o | Total   | Total | Total <sup>1</sup> | num <sup>2</sup> | MED pop <sup>3</sup>  |
| ALLCARE      | 331            | 0             | 0.0%           | 6240    | 120     | 1.9%    | 6571    | 120   | 1.8%               | 746              | 16.1%                 |
| CHA          | 95             | 0             | 0.0%           | 1167    | 9       | 0.8%    | 1262    | 9     | 0.7%               | 215              | 4.2%                  |
| CPCCO        | 209            | 0             | 0.0%           | 3792    | 252     | 6.6%    | 4001    | 252   | 6.3%               | 931              | 27.1%                 |
| EOCCO        | 431            | 1             | 0.2%           | 5512    | 350     | 6.3%    | 5943    | 351   | 5.9%               | 1290             | 27.2%                 |
| FAMILYCARE   | 621            | 0             | 0.0%           | 11,058  | 200     | 1.8%    | 11,679  | 200   | 1.7%               | 1886             | 10.6%                 |
| FFS          | 498            | 0             | 0.0%           | 8638    | 412     | 4.8%    | 9136    | 412   | 4.5%               | 1599             | 25.8%                 |
| HEALTH SHARE | 1538           | 0             | 0.0%           | 26,214  | 1114    | 4.2%    | 27,752  | 1114  | 4.0%               | 5648             | 19.7%                 |
| IHN          | 480            | 0             | 0.0%           | 7819    | 427     | 5.5%    | 8299    | 427   | 5.1%               | 1393             | 30.7%                 |
| JCC          | 240            | 0             | 0.0%           | 3488    | 342     | 9.8%    | 3728    | 342   | 9.2%               | 836              | 40.9%                 |
| PSCS - CO    | 475            | 0             | 0.0%           | 6993    | 166     | 2.4%    | 7468    | 166   | 2.2%               | 1089             | 15.2%                 |
| PSCS - CG    | 82             | 0             | 0.0%           | 1143    | 51      | 4.5%    | 1225    | 51    | 4.2%               | 202              | 25.2%                 |
| PHJC         | 68             | 0             | 0.0%           | 1391    | 61      | 4.4%    | 1459    | 61    | 4.2%               | 211              | 28.9%                 |
| TRILLIUM     | 665            | 0             | 0.0%           | 12,861  | 756     | 5.9%    | 13,526  | 756   | 5.6%               | 2783             | 27.2%                 |
| UHA          | 189            | 0             | 0.0%           | 3711    | 61      | 1.6%    | 3900    | 61    | 1.6%               | 486              | 12.6%                 |
| WOAH         | 144            | 0             | 0.0%           | 2986    | 57      | 1.9%    | 3130    | 57    | 1.8%               | 421              | 13.5%                 |
| WVCH         | 643            | 0             | 0.0%           | 9313    | 384     | 4.1%    | 9956    | 384   | 3.9%               | 1620             | 23.7%                 |
| YCCO         | 242            | 0             | 0.0%           | 2627    | 97      | 3.7%    | 2869    | 97    | 3.4%               | 478              | 20.3%                 |
| SUM OF CCOS  | 6453           | 1             | 0.0%           | 106,315 | 4447    | 4.2%    | 112,768 | 4448  | 3.9%               | 20235            | 22.0%                 |

<sup>&</sup>quot;deno" = denominator; "num" = numerator; "Total" = ages 12-17 plus ages 18+

Data extraction date: 12/28/2015; Last two columns on the right calculated by HealthInsight Oregon 1/20/2016.

Note: Physician-assisted opioid injection claims do not have days of supply, or quantity of dispensed units. Therefore, MED cannot be calculated and these claims are not included in denominator calculation.

<sup>&</sup>lt;sup>1</sup> Among enrollees with at least one opioid prescription in the measurement year (study denominator), the percentage of people who had ≥ 90mg MED/day for 30 days or more.

<sup>&</sup>lt;sup>2</sup> Number of enrollees with opioid prescriptions of ≥ 90mg MED/day for at least one day during the measurement year (study metric #2 numerator).

<sup>&</sup>lt;sup>3</sup> Among enrollees with at least one day of ≥ 90mg MED/da (study numerator #2), the percentage of chronic high users (≥ 30 days at 90mg MED).

# Statewide PIP, Attachment D: Study Demographics

Number of enrollees 12+ years and older who had least one prescription for an opioid pain reliever filled within the baseline measurement year by race and ethnicity.

Hispanic/ Non-Hispanic/ Non-Hispanic/

| Denominator                       | Hispanic/<br>Latino | Non-Hispanic/<br>Non-Latino | Unknown | Cross Ethnicity | % of denominator |
|-----------------------------------|---------------------|-----------------------------|---------|-----------------|------------------|
| African American                  | 162                 | 4589                        | 46      | 4797            | 4.25%            |
| American Indian or Alaskan Native | 122                 | 1414                        | 24      | 1560            | 1.38%            |
| Asian                             | 120                 | 1566                        | 23      | 1709            | 1.52%            |
| Caucasian/White                   | 4943                | 80,800                      | 1326    | 87,069          | 77.21%           |
| Native Hawaiian/Pacific Islander  | 27                  | 248                         | 0       | 275             | 0.24%            |
| Hispanic                          | 25                  | 0                           | 18      | 43              |                  |
| Other Race or Ethnicity           | 874                 | 1826                        | 37      | 2737            | 2.43%            |
| Unknown                           | 4611                | 9827                        | 140     | 14,578          | 12.93%           |
| Total                             | 10,884              | 10,0270                     | 1614    | 112,768         |                  |

Percentage of denominator who are Hispanic = 9.65%.

Data extraction date: 12/28/2015, Office of Health Analytics, OHA.

Number of enrollees in the study baseline denominator with at least 30 consecutive days or more with ≥ 120 mg MED/day by race and ethnicity. Non-Hispanic/ Numerator: ≥ 120mg MED/day for Hispanic/ % of Latino Non-Latino 30 days or more Unknown **Cross Ethnicity** numerator 2 90 92 African American 0 2.94% American Indian or Alaskan Native 4 51 0 55 1.76% 10 10 0.32% Asian 0 0 Caucasian/White 61 18 2688 2609 85.91% Native Hawaiian/Pacific Islander 0 5 0.16% 0 5 0 0 0 0.0% Hispanic 0 25 Other Race or Ethnicity 20 46 1.47% 1 233 Unknown 40 191 2 7.45% 21 127 2981 3129 **Total** 

Percentage of denominator who are Hispanic = 4.10%.

Data extraction date: 12/28/2015, Office of Health Analytics, OHA.

| Number of enrollees in the study baseline denominator with at least 30 consecutive days or more with ≥ 90 mg MED/day by race and ethnicity. |                     |                             |         |                 |                |  |  |  |  |  |
|---|---------------------|-----------------------------|---------|-----------------|----------------|--|--|--|--|--|
| Numerator: ≥ 90mg MED/day for 30 days or more   | Hispanic/<br>Latino | Non-Hispanic/<br>Non-Latino | Unknown | Cross Ethnicity | % of numerator |  |  |  |  |  |
| African American  | 3                   | 156                         | 1       | 160             | 3.60%          |  |  |  |  |  |
| American Indian or Alaskan Native   | 5                   | 69                          | 0       | 74              | 1.66%          |  |  |  |  |  |
| Asian   | 0                   | 12                          | 0       | 12              | 0.27%          |  |  |  |  |  |
| Caucasian/White   | 94                  | 3689                        | 25      | 3808            | 85.61%         |  |  |  |  |  |
| Native Hawaiian/Pacific Islander  | 0                   | 5                           | 0       | 5               | 0.11%          |  |  |  |  |  |
| Hispanic  | 0                   | 0                           | 0       | 0               | 0.0%           |  |  |  |  |  |
| Other Race or Ethnicity   | 20                  | 45                          | 2       | 73              | 1.64%          |  |  |  |  |  |
| Unknown   | 40                  | 257                         | 3       | 316             | 7.10%          |  |  |  |  |  |
| Total   | 127                 | 4233                        | 31      | 4448            |                |  |  |  |  |  |

Percentage of total denominator who are Hispanic = 2.86%.

Data extraction date: 12/28/2015, Office of Health Analytics, OHA.