Working together to improve health care quality, outcomes, and affordability in Washington State.

Opioid Prescribing Metrics

July 2017

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Background

In response to the increased number of deaths from opioid overdoses, the medical directors of the Washington State Agencies developed Guidelines on Prescribing Opioids for Pain[1] in 2007. These guidelines were revised in 2010 and again in 2015. The Centers for Disease Control and Prevention (CDC) developed and disseminated similar national guidelines in 2016.[2] However, understanding opioid prescribing practices and the impact of the opioid epidemic on a population is necessary for a state, region, health plan, clinic, or provider to effectively implement the guidelines. The Dr. Robert Bree Collaborative (Bree Collaborative) convened a workgroup that developed the following metrics to help implement the guidelines and standardize comparisons between populations.

The Bree Collaborative was established in 2011 by the Washington State Legislature so that public and private health care stakeholders can work together to improve quality, health outcomes, and the cost effectiveness of care in Washington State. The Bree Collaborative selects health care services with high variation, high cost and poor outcomes, or patient safety issues and develops recommendations to improve quality and reduce variation in practice.

See **Appendix A** for a list of current Bree Collaborative members.
For more information about the Bree Collaborative, please visit: www.breecollaborative.org.

In 2016, the Bree Collaborative endorsed the 2015 Agency Medical Directors Group Guidelines on Prescribing Opioids for Pain, convened a workgroup to develop implementation strategies, and elected to develop opioid prescribing metrics aligned with both the Washington State and CDC guidelines. The metrics were designed to be limited in number, have a strategic focus, and to be used for quality improvement. The first six metrics focus on guideline-concordant prescribing including chronic opioid use, opioid dose, concurrent chronic sedative use and transition from short-term to long-term opioid use. The last three metrics focus on mortality, overdose morbidity, and prevalence of opioid use disorder.

See **Appendix B** for the AMDG Opioid Prescribing Guideline Implementation workgroup charter and a list of members.

How to Use the Metrics

We strongly recommend using all the metrics as a full **set**. This allows tracking of the full picture of opioid prescribing practices as well as morbidity and mortality in your population. The metrics can be calculated from data from the Washington State Prescription Monitoring Program (PMP), medical claims or electronic medical records and used by individual health plans, individual health systems, hospitals, and clinics. Because individual patients may change health plans multiple times during a year, we worked to keep the time period required to calculate the metrics as short as possible rather than require a full calendar year. The workgroup also discussed excluding patients with a cancer diagnosis or those who are on hospice. The PMP does not include patient diagnoses so these populations cannot be

[1] Washington State Agency Medical Directors Group. Interagency Guideline on Prescribing Opioids for Pain. 3rd Edition, June 2015. Available: www.agencymeddirectors.wa.gov/Files/2015AMDGOpioidGuideline.pdf
[2] Dowell D, Haegerich TM, Chou R. CDC Guideline for Prescribing Opioids for Chronic Pain - United States, 2016. MMWR Recomm Rep. 2016 Mar 18;65(1):1-49. Available: www.cdc.gov/mmwr/volumes/65/rr/pdfs/rr6501e1.pdf

excluded when using this data source. However, we recommend that health plans or other entities exclude these patients if possible.

Several of the prescribing metrics are calculated using the number of patients who have been prescribed an opioid as the denominator rather than the size of a total population. This was done for two reasons. First, we recognize that some hospitals and clinics may not know the size of the total population they serve. Second, we believe providers may be more motivated to take action on prescribing practices as illustrated through the metrics based on the number of patients who have been prescribed opioids. One drawback to using metrics defined in this way is that trends can result from changes in the numerator, denominator, or both. In order to address this, we have also provided metrics using the total population as the denominator. Metrics 2, 3, 4, and 6 are differentiated by A for a percent per number of patients prescribed opioids and B for a rate per total population. We recommend calculating these metrics using both denominators if possible. In addition, if metrics are being compared across systems or regions, it is best to adjust the rates by age and sex since variability in the demographics of the population can greatly impact the metrics.

Future Steps

One of the primary goals of this metric set is to be short and actionable. The Opioid Prescribing Guideline Implementation workgroup discussed other potential metrics (e.g., tracking buprenorphine use for medication assisted treatment, use of non-pharmacologic alternatives to opioid use). These other, important metrics are of high interest but are not yet ready for specification and implementation and are out of the scope of a workgroup focused on prescribing practices. These and other metrics may be developed at a future date.

Definitions

- **Days Supply in Quarter**: The number of days each prescription should last (days supply) is generally provided for each prescription. Days supply is calculated at the pharmacy by dividing the number of units (e.g., tablets, capsules, patches) dispensed by the maximum number of units to be used in one day. For these metrics, the total days supply is the sum of the days supply from all opioid prescriptions prescribed during the calendar quarter, including overlapping prescriptions (and includes days that may extend into the next calendar quarter).
- **New Opioid Patient**: Patients with at least one opioid prescription in the current quarter (e.g., Oct-Dec), who have no opioids prescribed in the prior quarter (e.g., July-Sep) among patients in the population during both quarters.
- **Chronic Opioid Prescription**: ≥60 days supply of opioids prescribed in the calendar quarter.
- **Chronic Concurrent Opioid and Sedative Hypnotics, Benzodiazepines, Carisoprodol, and/or Barbiturate Prescription**: ≥60 days supply of opioids prescribed and ≥60 days supply of sedatives prescribed in the same calendar quarter.

- **Average morphine equivalent dose (MED) per day inclusive of overlapping opioid prescriptions**: The MED for each prescription is calculated by multiplying the number of units prescribed by the strength per unit and then multiplying by the conversion factor (see list of conversion factors in Metric 3). The total MED is the sum of the MED from all opioid prescriptions prescribed during the calendar quarter, including overlapping prescriptions (and includes MED that may extend into the next calendar quarter). The total MED of all opioids is divided by 90 days.

Morphine Equivalent Dose Calculation

For example, if a patient filled 180 tablets of hydrocodone 5 mg / acetaminophen 500 mg and 180 tablets of oxycodone extended release 20mg during the calendar quarter, the average MED per day is calculated as follows:

1. Find hydrocodone dose for prescription: Hydrocodone 5 mg x 180 tablets = 900 mg
2. Convert hydrocodone dose to MED: 900 mg x 1 (conversion factor in Metric 3) = 900 mg MED
3. Find oxycodone dose for prescription: Oxycodone 20 mg x 180 tablets = 3600 mg
4. Convert oxycodone dose to MED: 3600 mg x 1.5 (conversion factor in Metric 3) = 5400 mg MED
5. Add MEDs from all prescriptions: 900 mg + 5400 mg = 6300 mg total MED
6. Calculate average MED per day: 6300 mg MED ÷ 90 days = **70 mg per day MED**

Inclusions

- Opioid and sedative prescription data for all patients in the population pulled in calendar quarters (e.g., three month intervals of Jan-Mar, Apr-June, Jul-Sep, Oct-Dec).
- The number of calendar quarters of data needed is indicated for each metric, ranging from one calendar quarter in metric 1 to four calendar quarters for metric 9.
- See **Appendix C** for full list of included and excluded opioids
- See **Appendix D** for list of included benzodiazepines, sedative-hypnotics, and anxiolytics.

Exclusions

- All patients with a cancer diagnosis or those who are on hospice, if possible.
- All prescriptions for buprenorphine.
- Prescriptions for opioid not typically used in outpatient settings or when used as part of cough and cold formulations including elixirs, and combination products containing antitussives, decongestants, antihistamines, and expectorants.

Metric 1	**Patients prescribed any opioid** Percent of the population prescribed opioids, overall and by age group Primary: All ages Secondary: Age-specific (≤11, 11-20, 21-34, 35-64, ≥65 years old)
Rationale	To track trends in opioid prescribing overall and by age group. Age is defined as the age on the first day of the quarter of analysis. AMDG 2015 Guideline: *Reserve opioids for acute pain resulting from severe injury or medical conditions, surgical procedures, or when alternatives are ineffective or contraindicated.* (Page 22) *The goal of opioid therapy is to prescribe the briefest, least invasive and lowest dose regimen that minimizes pain and avoids dangerous side effects.* (Page 26) CDC 2016 Guideline: *Long-term opioid use often begins with treatment of acute pain. When opioids are used for acute pain, clinicians should prescribe the lowest effective dose of immediate-release opioids and should prescribe no greater quantity than needed for the expected duration of pain severe enough to require opioids. Three days or less will often be sufficient; more than seven days will rarely be needed (recommendation category: A, evidence type: 4).* (Page 24)
Number of Quarters of Data Needed	One calendar quarter (e.g., current (Oct-Dec))
Numerator	Number of patients in the population with at least one opioid prescription prescribed in the calendar quarter
Denominator	Number of patients in the population in the calendar quarter (e.g., health plan population, Washington State population)*
Frequency	Quarterly
Level of Analysis	State/Region System/Health Plan Clinic/Provider
Inclusions	Opioid prescription data for all patients in the population pulled the calendar quarter (e.g., Oct-Dec) See **Appendix C** for full list of included and excluded opioids
Exclusions	All patients with a cancer diagnosis or those who are on hospice, if possible All prescriptions for buprenorphine Prescriptions for opioid not typically used in outpatient settings or when used as part of cough and cold formulations including elixirs, and combination products containing antitussives, decongestants, antihistamines, and expectorants

* If total population denominator data is not available, report the number of patients with at least one opioid prescription filled in the quarter.

Metric 2	**Patients prescribed chronic opioids** Metric 2A: Percent of patients prescribed chronic opioids among patients with at least one opioid prescription prescribed in the quarter Metric 2B: Prevalence of patients prescribed chronic opioids (optional)
Rationale	To track trends in long-term (chronic) prescriptions of opioids among all patients using prescribed opioids and among the population (state population, county, health plan, etc.) AMDG 2015 Guideline: *The overall data on effectiveness of opioids for longer term use, especially for improved function, and for routine conditions such as non-specific low back pain, headaches, and fibromyalgia is weak, and the evidence of potential harm is strong.* (Page 24) *Prescribe chronic opioid analgesic therapy only if there is sustained clinically meaningful improvement in function and no serious adverse outcomes or contraindications.* (Page 32) CDC 2016 Guideline: *Non-pharmacologic therapy and non-opioid pharmacologic therapy are preferred for chronic pain. Clinicians should consider opioid therapy only if expected benefits for both pain and function are anticipated to outweigh risks to the patient. If opioids are used, they should be combined with non-pharmacologic therapy and non-opioid pharmacologic therapy, as appropriate. (recommendation category: A, evidence type: 3).* (Page 17)
Number of Quarters of Data Needed	One calendar quarter (e.g., current (Oct-Dec)).
Numerator	Number of patients in the population prescribed ≥60 days supply of opioids in the calendar quarter
Denominator	A: Number of patients in the population with at least one opioid prescription in the calendar quarter B: Number of patients in the population in the calendar quarter (e.g., health plan population, Washington State population)
Days Supply	The total days supply is the sum of the days supply from all opioid prescriptions prescribed during the calendar quarter, including overlapping prescriptions (and includes days that may extend into the next calendar quarter). Divide the number of units (e.g., tablets, capsules, patches) dispensed by the maximum number of units to be used in one day.
Frequency	Quarterly
Level of Analysis	State/Region System/Health Plan Clinic/Provider

Inclusions	Opioid prescription data for all patients in the population pulled the calendar quarter (e.g., Oct-Dec) See **Appendix C** for full list of included and excluded opioids
Exclusions	All patients with a cancer diagnosis or those who are on hospice, if possible All prescriptions for buprenorphine Prescriptions for opioid not typically used in outpatient settings or when used as part of cough and cold formulations including elixirs, and combination products containing antitussives, decongestants, antihistamines, and expectorants

Metric 3	**Patients prescribed high-dose chronic opioid therapy** Metric 3A: Percent of patients at high doses among patients prescribed chronic opioids Metric 3B: Prevalence of patients prescribed opioids at high doses (optional)
Rationale	To track trends in high-dose opioid prescribing (e.g., ≥50 mg/day MED, ≥90 mg/day MED) among those being prescribed chronic opioid therapy and among the population (state, county, health plan, etc.) AMDG 2016 Guideline: *There is no completely safe opioid dose. Chronic opioid analgesic therapy patients should be routinely assessed for risk as medical conditions and life circumstances may change during treatment.* (Page 12) *Prescribe opioids at the lowest possible effective dose. If the dose is increased but does not result in clinically meaningful improvement in function, then significant tolerance or adverse effects to opioids may be developing and opioids should be tapered back to the previous dose or possibly discontinued.* (Page 32) CDC 2016 Guideline: *When opioids are started, clinicians should prescribe the lowest effective dosage. Clinicians should use caution when prescribing opioids at any dosage, should carefully reassess evidence of individual benefits and risks when considering increasing dosage to ≥50 morphine milligram equivalents (MME)/day, and should avoid increasing dosage to ≥90 MME/day or carefully justify a decision to titrate dosage to ≥90 MME/day (recommendation category: A, evidence type: 3).* (Page 22)
Number of Quarters of Data Needed	One calendar quarter (e.g., current (Oct-Dec)).
Numerator	Number of patients in the population prescribed ≥60 days supply of opioids at ≥50 mg/day MED in the calendar quarter Number of patients in the population prescribed ≥60 days supply of opioids at ≥90 mg/day MED in the calendar quarter
Denominator	A: Number of patients in the population prescribed ≥60 days supply of opioids in the calendar quarter B: Number of patients in the population in the calendar quarter (e.g., health plan population, Washington State population)
Days Supply	The total days supply is the sum of the days supply from all opioid prescriptions prescribed during the calendar quarter, including overlapping prescriptions (and includes days that may extend into the next calendar quarter). Divide the number of units (e.g., tablets, capsules, patches) dispensed by the maximum number of units to be used in one day.
Frequency	Quarterly
Level of Analysis	State/Region System/Health Plan Clinic/Provider

Inclusions	Opioid prescription data for all patients in the population pulled the calendar quarter (e.g., Oct-Dec) See **Appendix C** for full list of included and excluded opioids
Exclusions	All patients with a cancer diagnosis or those who are on hospice, if possible All prescriptions for buprenorphine Prescriptions for opioid not typically used in outpatient settings or when used as part of cough and cold formulations including elixirs, and combination products containing antitussives, decongestants, antihistamines, and expectorants

Conversion Factors for Commonly Prescribed Opioids

Non-Parenteral Opioid	Conversion factor*
Codeine	0.15
Dihydrocodeine	0.25
Fentanyl buccal, sublingual or lozenge/	0.13
Fentanyl film or oral spray	0.18
Fentanyl nasal spray	0.16
Fentanyl transdermal	2.4
Hydrocodone	1
Hydromorphone	4
Levorphanol tartrate	11
Meperidine hydrochloride	0.1
Methadone	
1–20 mg/day	4
21–40 mg/day	8
41–60 mg/day	10
≥61–80 mg/day	12
Morphine	1
Oxycodone	1.5
Oxymorphone	3
Pentazocine	0.37
Propoxyphene	0.23
Tapentadol	0.4
Tramadol	0.1

Calculation of Average MED per Day	The MED for each prescription is calculated by multiplying the number of units prescribed by the strength per unit and then multiplying by the conversion factor. The total MED is the sum of the MED from all opioid prescriptions prescribed during the calendar quarter, including overlapping prescriptions (and includes MED that may extend into the next calendar quarter). The total MED of all opioids is divided by 90 days. Note: Some guidelines refer to MED as morphine milligram equivalent or MME.

Morphine Equivalent Dose Calculation

For example, if a patient filled 180 tablets of hydrocodone 5 mg / acetaminophen 500 mg and 180 tablets of oxycodone extended release 20mg during the calendar quarter, the average MED per day is calculated as follows:

1. Find hydrocodone dose for prescription: Hydrocodone 5 mg x 180 tablets = 900 mg
2. Convert hydrocodone dose to MED: 900 mg hydrocodone x 1 (conversion factor in Metric 3) = 900 mg MED
3. Find oxycodone dose for prescription: Oxycodone 20 mg x 180 tablets = 3600 mg
4. Convert oxycodone dose to MED: 3600 mg oxycodone x 1.5 (conversion factor in Metric 3) = 5400 mg MED
5. Add MEDs from all prescriptions: 900 mg + 5400 mg = 6300 mg total MED
6. Calculate average MED per day: 6300 mg MED ÷ 90 days = **70 mg per day MED**

Metric 4	**Patients prescribed chronic concurrent opioids and sedatives** Metric 4A: Percent of patients with concurrent chronic opioid and sedative prescriptions, among patients prescribed chronic opioids Metric 4B: Prevalence of patients with concurrent chronic opioid and sedative prescriptions (optional)
Rationale	To track concurrent chronic opioid and sedative prescriptions in those with chronic opioid use and among the population (state, county, health plan, etc.) AMDG 2015 Guideline: *High-risk chronic opioid analgesic therapy prescribing practices (high opioid dose, extended chronic opioid analgesic therapy duration, concurrent use of sedatives/hypnotics) are associated with increased risks of opioid overdose and serious fractures*. Acute: "*Avoid new prescriptions of benzodiazepines and sedative-hypnotics. Consider tapering or discontinuing benzodiazepines and/or sedative-hypnotics*." Chronic: "*Do not combine opioids with benzodiazepines, sedative-hypnotics or barbiturates*." (Page 24-5, 26, 27, 28, 32, 33) CDC 2016 Guideline: *Clinicians should avoid prescribing opioid pain medication and benzodiazepines concurrently whenever possible (recommendation category: A, evidence type: 3)* (Page 32)
Number of Quarters of Data Needed	One calendar quarter (e.g., current (Oct-Dec))
Numerator	Number of patients in the population prescribed ≥60 days supply of opioids and prescribed ≥60 days supply of sedative hypnotics, benzodiazepines, carisoprodol, and/or barbiturates in the same calendar quarter
Denominator	A: Number of patients in the population prescribed ≥60 days supply of opioids in the calendar quarter B: Number of patients in the population in the calendar quarter (e.g., health plan population, Washington State population)
Days Supply	The total days supply is the sum of the days supply from all opioid prescriptions prescribed during the calendar quarter, including overlapping prescriptions (and includes days that may extend into the next calendar quarter). Divide the number of units (e.g., tablets, capsules, patches) dispensed by the maximum number of units to be used in one day.
Frequency	Quarterly
Level of Analysis	State/Region System/Health Plan Clinic/Provider

Codes to identify sedatives	**Generic names**	• Benzodiazepines o Alprazolam o Chlordiazepoxide o Clonazepam o Clorazepate o Diazepam o Estazolam o Flurazepam o Lorazepam o Midazolam o Oxazepam o Quazepam o Temazepam o Triazolam	• Barbiturates o Butabarbital o Butalbital o Mephobarbital o Phenobarbital o Secobarbital • Skeletal muscle relaxants o Carisoprodol • Non-benzodiazepine hypnotics o Chloral Hydrate o Eszopiclone o Meprobamate o Suvorexant o Zaleplon o Zolpidem
Inclusions	Opioid prescription data for all patients in the population pulled the calendar quarter (e.g., Oct-Dec) See **Appendix C** for full list of included and excluded opioids See **Appendix D** for list of included benzodiazepines, sedative-hypnotics, and anxiolytics.		
Exclusions	All patients with a cancer diagnosis or those who are on hospice, if possible All prescriptions for buprenorphine Prescriptions for opioid not typically used in outpatient settings or when used as part of cough and cold formulations including elixirs, and combination products containing antitussives, decongestants, antihistamines, and expectorants		

Metric 5	**New opioid patients days supply of first opioid prescription** Among new opioid patients, distribution of days supply on first prescription
Rationale	CDC guidelines recommend initial opioid prescriptions should generally be for 3 days or less. Among new opioid patients in a quarter this metric tracks the percent of first prescriptions with days supply of ≤3, 4-7, 8-13, and ≥14. AMDG 2015 Guideline: *If opioids are prescribed, it should be at the lowest necessary dose and for the shortest duration (usually less than 14 days).* (Page 22) CDC 2016 Guideline: *Long-term opioid use often begins with treatment of acute pain. When opioids are used for acute pain, clinicians should prescribe the lowest effective dose of immediate-release opioids and should prescribe no greater quantity than needed for the expected duration of pain severe enough to require opioids. Three days or less will often be sufficient; more than seven days will rarely be needed (recommendation category: A, evidence type: 4).* (Page 24)
Number of Quarters of Data Needed	Two subsequent calendar quarters (e.g., current (Oct-Dec) and previous (July-Sep)).
Numerator	Number of patients with at least one opioid prescription in the current quarter (e.g., Oct-Dec), who have no opioids prescribed in the prior quarter (e.g., July-Sep) among patients in the population during both quarters by days supply (i.e., ≤3, 4-7, 8-13, and ≥14) in the current quarter
Denominator	Patients with at least one opioid prescription in the current quarter (e.g., Oct-Dec), who have no opioids prescribed in the prior quarter (e.g., July-Sep) in the population during both quarters.
Frequency	Quarterly
Level of Analysis	Region/State System/Health Plan Clinic/Provider
Definition of new opioid patient	Patients with at least one opioid prescription in the current quarter (e.g., Oct-Dec), who have no opioids prescribed in the prior quarter (e.g., July-Sep) among patients in the population during both quarters.
Inclusions	Opioid prescription data for all patients in the population pulled in two subsequent calendar quarters (e.g., Jul-Sep, Oct-Dec). See **Appendix C** for full list of included and excluded opioids
Exclusions	All patients with a cancer diagnosis or those who are on hospice, if possible All prescriptions for buprenorphine Prescriptions for opioid not typically used in outpatient settings or when used as part of cough and cold formulations including elixirs, and combination products containing antitussives, decongestants, antihistamines, and expectorants

Metric 6	**New opioid patients subsequently prescribed chronic opioids** Metric 6A: Among new opioid patients, percent who then transition to chronic opioids in the next quarter Metric 6B: Rate of new opioid users transitioning to chronic opioid use in the current quarter (optional)
Rationale	To track the transition from new to chronic opioid prescription AMDG 2015 Guideline: *Because there is little evidence to support long term efficacy of chronic opioid analgesic therapy in improving function and pain, and there is ample evidence of its risk for harm, prescribers should proceed with caution when considering whether to initiate opioids or transition to chronic opioid analgesic therapy.* (Page 7) *Patients who used opioids for at least 90 days were greater than 60% more likely to still be on chronic opioids in 5 years.* (Page 11) *Do not discharge the patient with more than a two week supply of opioids, and many surgeries may require less. Continued opioid therapy will require appropriate reevaluation by the surgeon*. (Page 28) CDC 2016 Guideline: *Long-term opioid use often begins with treatment of acute pain. When opioids are used for acute pain, clinicians should prescribe the lowest effective dose of immediate-release opioids and should prescribe no greater quantity than needed for the expected duration of pain severe enough to require opioids. Three days or less will often be sufficient; more than seven days will rarely be needed (recommendation category: A, evidence type: 4)*. (Page 24)
Number of Quarters of Data Needed	Three subsequent quarters (e.g., current calendar quarter (Oct-Dec) and the two subsequent previous calendar quarters (April-June, July-Sep))
Numerator	Number of patients who are prescribed ≥60 days supply of opioids in the current calendar quarter (e.g., Oct-Dec) with at least one opioid prescription in the previous quarter (e.g., Jul-Sep) and no opioid prescription in the prior quarter (e.g., Apr-June)
Denominator	A: Number of patients with at least one opioid prescription in the previous quarter (e.g., July-Sep), who have no opioids prescribed in the prior quarter (e.g., April-June) B: Number of patients in the population in the calendar quarter (e.g., health plan population, Washington State population)
Frequency	Quarterly
Level of Analysis	State/Region System/Health Plan Clinic/Provider
Definition of new opioid patient	Patients with at least one opioid prescription in the current quarter (e.g., Oct-Dec), who have no opioids prescribed in the prior quarter (e.g., July-Sep) among patients in the population during both quarters.

Inclusions	Opioid prescription data for all patients in the population pulled in three subsequent calendar quarters (e.g., Apr-June, Jul-Sep, Oct-Dec). See **Appendix C** for full list of included and excluded opioids
Exclusions	All patients with a cancer diagnosis or those who are on hospice, if possible All prescriptions for buprenorphine Prescriptions for opioid not typically used in outpatient settings or when used as part of cough and cold formulations including elixirs, and combination products containing antitussives, decongestants, antihistamines, and expectorants

Metric 7	Opioid overdose deaths
Rationale	To track deaths from both prescription opioids and heroin
Number of Quarters of Data Needed	One calendar quarter (e.g., current (Oct-Dec))
Numerator	Number of deaths from prescription opioids Number of deaths from heroin
Denominator	Number of people in the population (e.g., health plan population, Washington State population)
Frequency	Quarterly
Level of Analysis	State/Region
Definitions	Deaths with any of the following codes as principal diagnosis or first-listed external cause-of-injury: **ICD-9** 965.00: Poisoning by opium 965.01: Poisoning by heroin 965.02: Poisoning by methadone 965.09: Poisoning by other opiates and related narcotics E850.0: Accidental poisoning by heroin E850.1: Accidental poisoning by methadone E850.2: Accidental poisoning by other opiates and related narcotics **ICD-10** X40-X44: Accidental poisonings by drugs X60-X64: Intentional self-poisoning by drugs X85: Assault by drug poisoning Y10-Y14: Drug poisoning of undetermined intent **AND with any of the following ICD-10 contributing cause-of-death codes:** T40.0: Opium T40.1: Heroin T40.2: Natural and semisynthetic opioids T40.3: Methadone T40.4: Synthetic opioids, other than methadone T40.6: Other and unspecified narcotics
Inclusions	Medical or billing record for all patients in the population pulled in the calendar quarter (e.g., Oct-Dec)

Metric 8	**Non-fatal overdose involving prescription opioids** Primary: All ages Secondary: Age-specific: ≤11, 11-20, 21-34, 35-64, ≥65
Rationale	To track the non-fatal overdoses from prescription opioids
Number of Quarters of Data Needed	One calendar quarter (e.g., current (Oct-Dec))
Numerator	Number of non-fatal overdoses involving prescription opioids presenting to the Emergency Department Number of non-fatal overdoses involving prescription opioids resulting in hospitalization
Denominator	Total number of people in the population (e.g., health plan population, Washington State population)
Frequency	Quarterly
Level of Analysis	State/Region System/Health Plan
Definitions	Rate of non-fatal overdoses in at least one quarter in the year with any of the following codes from hospitalization and emergency department (ED) by age: **ED visits or hospitalizations for all opioid overdose excluding heroin (ICD-9)** 965.00 Poisoning by Opium 965.02 Poisoning by Methadone 965.09 Poisoning by Other Opiates and Related Narcotics E850.1 Accidental Poisoning by Methadone E850.2 Accidental Poisoning by Other Opiates and Related Narcotics **ED visits or hospitalizations for all opioid overdose excluding heroin (ICD-10)** T40.0 (T40.0X – T40.0X4): Opium T40.2 (T40.2X – T40.2X4): Natural and semisynthetic opioids T40.3 (T40.3X – T40.3X4): Methadone T40.4 (T40.4X – T40.4X4): Synthetic opioids, other than methadone T40.6 (T40.60 – T40.604): Other and unspecified narcotics
Inclusions	Medical or billing record for all patients in the population pulled in the calendar quarter (e.g., Oct-Dec)

Metric 9	Patients prescribed chronic opioids who receive a diagnosis of opioid use disorder
Rationale	To track the number of patients receiving opioids chronically who also receive a diagnosis of opioid use disorder
Number of Quarters of Data Needed	Four subsequent quarters (e.g., current calendar quarter (Oct-Dec) and the three subsequent previous calendar quarters (Jan-Mar, April-June, July-Sep))
Numerator	Number of patients diagnosed with an opioid use disorder and ≥60 days supply of opioids in at least 3 of 4 quarters in a year
Denominator	Number of patients in a population with ≥60 days supply of opioids in at least 3 of 4 calendar quarters in a year
Frequency	Annually
Level of Analysis	State/Region System/Health Plan
Definitions	Rate of patients prescribed chronic opioids in at least 3 of 4 quarters in a year with any of the following codes in the same year**:** **ICD-9** diagnosis of an opioid use disorder 304.00 – 304.03 Opioid type dependence 304.7 Combinations of opioid type drug with any other 305.50 – 305.53 Opioid abuse **DSM-IV** for an opioid use disorder 304.0 Opioid type dependence 305.5 Opioid abuse **ICD-10** diagnosis of an opioid use disorder F11 (F11.1 – F11.99) Opioid related disorders **DSM5** for an opioid use disorder 305.50 Opioid use disorder, mild 304.00 Opioid use disorder, moderate 304.00 Opioid use disorder, severe
Inclusions	Opioid prescription data and medical or billing record for all patients in the population pulled in four subsequent calendar quarters (e.g., three month intervals of Jan-Mar, Apr-June, Jul-Sep, Oct-Dec). See **Appendix C** for full list of included and excluded opioids
Exclusions	All patients with a cancer diagnosis or those who are on hospice, if possible All prescriptions for buprenorphine Prescriptions for opioid not typically used in outpatient settings or when used as part of cough and cold formulations including elixirs, and combination products containing antitussives, decongestants, antihistamines, and expectorants

Appendix A: Bree Collaborative Members

Member	Title	Organization
Susie Dade MS	Deputy Director	Washington Health Alliance
John Espinola MD, MPH	Executive Vice President, Health Care Services	Premera Blue Cross
Gary Franklin MD, MPH	Medical Director	Washington State Department of Labor and Industries
Stuart Freed MD	Chief Medical Officer	Confluence Health
Richard Goss MD	Medical Director	Harborview Medical Center – University of Washington
Christopher Kodama MD	President, MultiCare Connected Care	MultiCare Health System
Daniel Lessler MD, MHA	Chief Medical Officer	Washington State Health Care Authority
Paula Lozano MD, MPH	Associate Medical Director, Research and Translation	Group Health Cooperative
Wm. Richard Ludwig MD	Chief Medical Officer, Accountable Care Organization	Providence Health and Services
Greg Marchand	Director, Benefits & Policy and Strategy	The Boeing Company
Robert Mecklenburg MD	Medical Director, Center for Health Care Solutions	Virginia Mason Medical Center
Kimberly Moore MD	Associate Chief Medical Officer	Franciscan Health System
Carl Olden MD	Family Physician	Pacific Crest Family Medicine, Yakima
Mary Kay O'Neill MD, MBA	Partner	Mercer
John Robinson MD, SM	Chief Medical Officer	First Choice Health
Terry Rogers MD (Vice Chair)	Chief Executive Officer	Foundation for Health Care Quality
Jeanne Rupert DO, PhD	Medical Director, Community Health Services	Public Health – Seattle and King County
Kerry Schaefer	Strategic Planner for Employee Health	King County
Bruce Smith MD	Medical Director	Regence Blue Shield
Lani Spencer RN, MHA	Vice President, Health Care Management Services	Amerigroup
Hugh Straley MD (Chair)	Retired	Medical Director, Group Health Cooperative; President, Group Health Physicians
Shawn West MD	Family Physician	Edmonds Family Medicine

Appendix B: AMDG Opioid Prescribing Guidelines Implementation Workgroup Charter

Background

The Washington State Agency Medical Directors Group (AMDG) developed a comprehensive Guideline on Prescribing Opioids for Pain in June 2015. The Guidelines were subsequently adopted by the Bree Collaborative at the July 2015 meeting with the goal of developing implementation strategies.

Aim

To facilitate implementation of the Agency Medical Directors Opioid Prescribing Guidelines.

Purpose

To design and carry out strategies to implement the Agency Medical Directors Opioid Prescribing Guidelines.

Duties & Functions

The Opioid Implementation workgroup will:

- Consult members of stakeholder organizations and subject matter experts for feedback, as appropriate.
- Recommend evidence-based implementation strategies.
- Define intended outcomes, targets, metrics, and data collection methods.
- Develop change strategies as needed.
- Enlist the assistance of other Bree members as well as non-Bree members to pursue the implementation of workgroup recommendations.
- Meet as needed.
- Provide updates at Bree Collaborative meetings.
- Create and oversee subsequent subgroups to help carry out the work, as needed.

Structure

The workgroup will consist of individuals appointed by the chair of the Bree Collaborative or the workgroup chair and confirmed by Bree Collaborative members.

The chair of the workgroup will be appointed by the chair of the Bree Collaborative.

The Bree Collaborative project director will staff and provide management and support services for the workgroup.

Less than the full workgroup may convene to: gather and discuss information; conduct research; analyze relevant issues and facts; or draft recommendations for the deliberation of the full workgroup. A quorum shall be a simple majority and shall be required to accept and approve recommendations to send to the Bree Collaborative.

Meetings

The workgroup will hold meetings as necessary. The program director will conduct meetings along with the chair, arrange for the recording of each meeting, and distribute meeting agendas and other materials prior to each meeting.

Name	Title	Organization
Chris Baumgartner	Director Prescription Monitoring Program	Washington State Department of Health
David Buchholz, MD	Medical Director of Provider Engagement	Premera
Gary Franklin, MD, MPH (Chair)	Medical Director	Washington State Department of Labor and Industries
Charissa Fotinos, MD	Deputy Chief Medical Officer	Washington State Health Care Authority
Deborah Fulton-Kehoe, PhD, MPH	Research Scientist	Department of Environmental and Occupational Health Sciences, School of Public Health, University of Washington
Frances Gough, MD	Chief Medical Officer	Molina Healthcare
Dan Kent, MD	Chief Medical Officer	UnitedHealthcare
Kathy Lofy, MD	Chief Science Officer	Washington State Department of Health
Jaymie Mai, PharmD	Pharmacy Manager	Washington State Department of Labor and Industries
Shirley Reitz, PharmD	Clinical Pharmacist Client Manager	OmedaRx, Cambia
Gregory Rudolph, MD	Addiction Medicine	Swedish Pain Services
Michael Schiesser, MD	Addiction Medicine	EvergreenHealth Medical Center
Mark Stephens	President	Change Management Consulting
David Tauben, MD	Chief of Pain Medicine	University of Washington Medical Center
Gregory Terman MD, PhD	Professor	Department of Anesthesiology and Pain Medicine and the Graduate Program in Neurobiology and Behavior, University of Washington
Michael Von Korff, ScD	Senior Investigator	Kaiser Permanente Washington Research Institute

Appendix C: Included and Excluded Opioids

For complete list including NDC codes see:
www.qualityhealth.org/bree/wp-content/uploads/sites/8/2023/04/Opioid-NDC-2017-include.xls
www.qualityhealth.org/bree/wp-content/uploads/sites/8/2023/04/Opioid-NDC-2017-exclude.xls

Therapeutic class codes: 'H30', 'H3A', 'H3N', 'H3U', 'H3X', 'H3Z'

Generic Names:

- Codeine
- Dihydrocodeine
- Fentanyl
- Hydrocodone
- Hydromorphone
- Levorphanol
- Meperidine
- Methadone
- Morphine
- Oxycodone
- Oxymorphone
- Pentazocine
- Propoxyphene HCL
- Propoxyphene Napsylate
- Tapentadol
- Tramadol

Appendix D: Sedative Hypnotics, Benzodiazepines, Carisoprodol, and/or Barbiturates

For complete list including NDC codes see: www.breecollaborative.org/wp-content/uploads/Sedative-NDC-2017-include.pdf

- **Benzodiazepines**
  - Alprazolam
  - Chlordiazepoxide
  - Clonazepam
  - Clorazepate
  - Diazepam
  - Estazolam
  - Flurazepam
  - Lorazepam
  - Midazolam
  - Oxazepam
  - Quazepam
  - Temazepam
  - Triazolam
- **Barbiturates**
  - Butabarbital
  - Butalbital
  - Mephobarbital
  - Phenobarbital
  - Secobarbital
- **Skeletal muscle relaxants**
  - Carisoprodol
- **Non-benzodiazepine hypnotics**
  - Chloral Hydrate
  - Eszopiclone
  - Meprobamate
  - Suvorexant
  - Zaleplon
  - Zolpidem