#### Prescription opioid overdose & misuse in Oregon



Lisa Millet, MSH Center for Prevention and Health Promotion Oregon Health Authority Governor's Workgroup on Prescription Drug Misuse December 5, 2012, Salem, Oregon



#### Acknowledgements

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### Objectives

- Describe prescription opioid overdose
- Identify some known and possible risk factors

- Describe what you can expect from prescription drug monitoring
- Describe PDMP next steps and ongoing work

Think about how many Oregonians have medically necessary treatment with controlled substances

- 760,000 live with chronic pain (20% of Oregonians)
- 100,000+ are treated for injury in ED annually
- 213,000 have surgical visits each year (5.5%)
- 8,000 die of cancer
- 20,000 new cases of cancer each year
- Uncounted dental encounters to reduce pain
- 611,000 Oregonians received an opioid prescription from 10/2011 to 3/2012

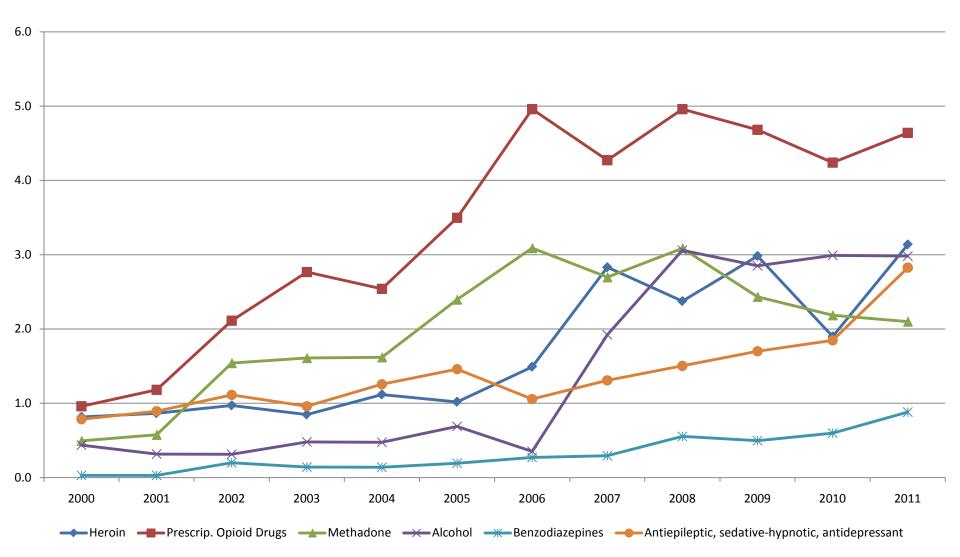
Patients filling prescriptions from multiple prescribers at multiple pharmacies, OR, 10/2011 - 3/2012

| Patients* | Providers/Pharmacies                |
|-----------|-------------------------------------|
| 1,746     | 5 - 9 providers and pharmacies      |
| 69        | 10 - 14 providers and pharmacies    |
| 18        | 15 or more providers and pharmacies |

\*A total of 897,815 patients received at least one controlled substance prescription during this timeframe (611,000 were for opiods).

#### Overdose death rate by drug type per 100,000 OR, 2000-2011

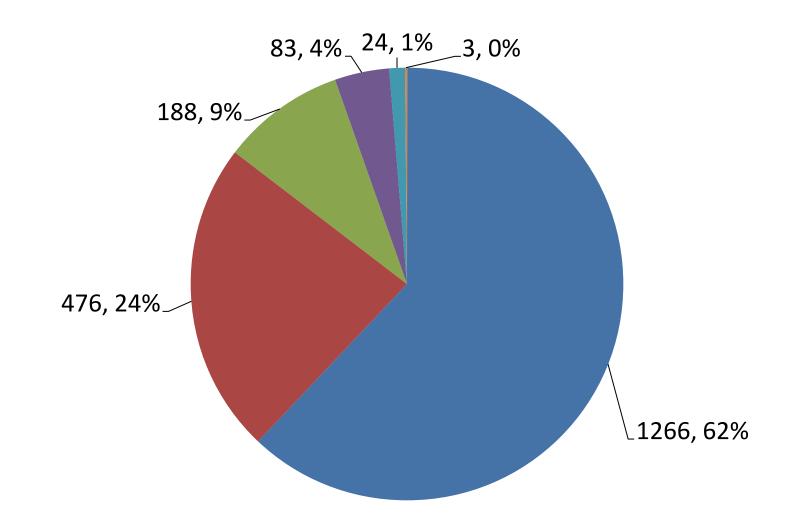
Note: a person can have more than 1 contributing drug related to their death



## Increase in overdose death & hospitalization rate per 100,000 involving selected drugs, OR, 2000 to 2011

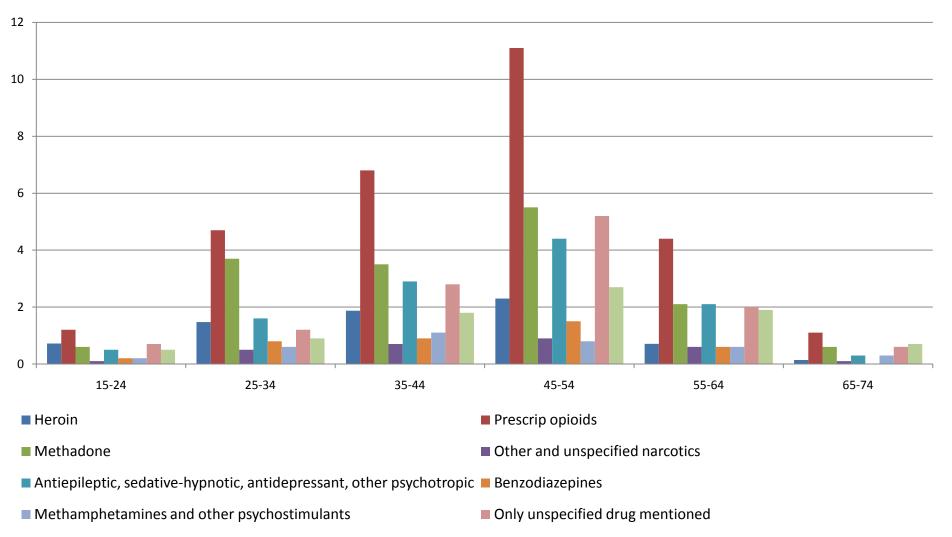
| Drug   | Deaths |      | Hospitalizations |      | ons  |     |
|--|--------|------|------------------|------|------|-----|
|  | 2000   | 2011 |                  | 2000 | 2011 |     |
| Heroin   | 0.8    | 3.1  | 3.8              | 0.6  | 1.8  | 2.8 |
| Prescription opioid drugs                        | 1.0    | 4.6  | 4.8              | 2.0  | 10.0 | 5.1 |
| Methadone  | 0.5    | 2.1  | 4.2              | 0.3  | 2.4  | 7.6 |
| Benzodiazepines                                  | 0      | 0.9  | 30.3             | 1.3  | 3.9  | 3.0 |
| Antiepileptic, sedative-hypnotic, antidepressant | 0.8    | 2.8  | 3.6              | 5.6  | 13.1 | 2.4 |
| Methamphetamines and other psychostimulants      | 0.5    | 1.4  | 3.1              | 0.8  | 2.0  | 2.5 |
| Alcohol  | 0.4    | 3.0  | 6.8              | 0.7  | 1.2  | 1.6 |

Frequency and percent of unintentional drug overdose deaths from more than one drug, OR, 2007-2011



## Overdose death rate by drug type per 100,000 among females by age group, OR, 2007-2011

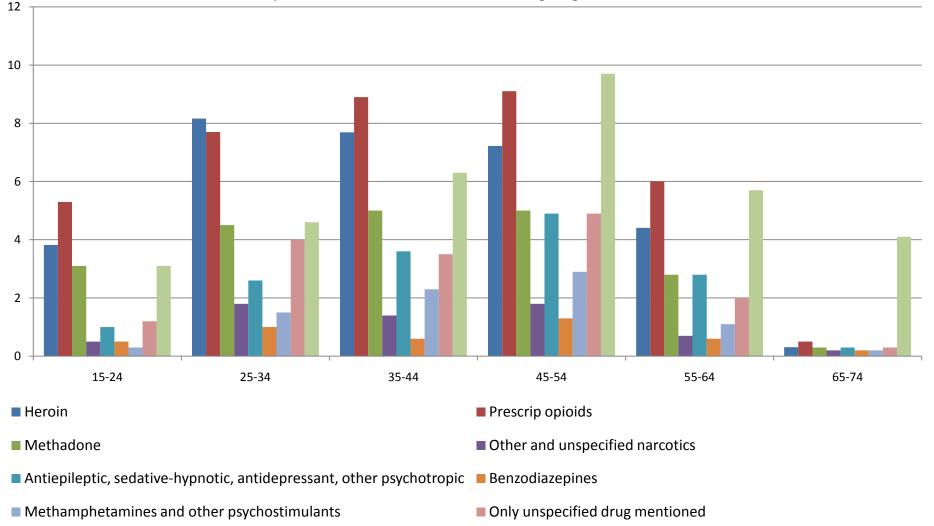
Note: a person can have more than 1 contributing drug related to their death



Alcohol

#### Overdose death rate by drug type per 100,000 among males by age group, OR, 2007-2011

Note: a person can have more than 1 contributing drug related to their death



Alcohol

# Selected drugs dispensed in Oregon, 10/2011 – 3/2012

| Drug or drug<br>type | Prescription<br>recipient<br>count in 6<br>months | Number of<br>prescription<br>s dispensed<br>to recipient<br>in 6 months | Number of<br>prescription<br>s dispensed<br>per<br>prescription<br>recipient in<br>6 months | Number of<br>people<br>receiving<br>prescriptio<br>ns per<br>1,000<br>residents | Number of<br>prescriptio<br>ns<br>dispensed<br>per 1,000<br>residents |
|----------------------|---|---|---|---|---|
|                      |   |   |   |   |   |
| Methadone            | 14,268  | 64,674  | 4.5   | 3.7   | 16.8  |
| Oxycodone            | 213,500   | 577,689   | 2.7   | 55.3  | 149.8   |
| Hydrocodone          | 438,275   | 1,030,866   | 2.4   | 113.6   | 267.2   |
| All opiods           | 611,985   | 1,872,534   | 3.1   | 158.6   | 485.4   |

### METHADONE\* by age group, statewide, OR, 10/01/11 to 03/31/12

| Age (in years) | Prescription<br>Recipient Count<br>in 6 months | Number of<br>prescriptions<br>dispensed in 6<br>months | Number of<br>prescriptions<br>dispensed per<br>prescription<br>recipient in 6<br>months | Number of<br>people receiving<br>prescriptions,<br>per 1,000<br>residents | Number of<br>prescriptions<br>dispensed per<br>1,000 residents |
|----------------|--|--|---|---|--|
| 1 - 14         | 21   | 66   | 3.1   | 0.0   | 0.1  |
| 15 - 24        | 153  | 519  | 3.4   | 0.3   | 1.0  |
| 25 - 34        | 1,298  | 5,626  | 4.3   | 2.5   | 10.6   |
| 35 - 44        | 2,333  | 10,855   | 4.7   | 4.6   | 21.5   |
| 45 - 54        | 4,086  | 19,238   | 4.7   | 7.6   | 36.0   |
| 55 - 64        | 4,083  | 19,200   | 4.7   | 8.0   | 37.4   |
| 65 - 74        | 1,437  | 6,135  | 4.3   | 4.7   | 20.1   |
| 75 - 84        | 565  | 2,052  | 3.6   | 3.3   | 12.1   |
| 85+            | 292  | 983  | 3.4   | 3.7   | 12.6   |
| TOTAL          | 14,268   | 64,674   | 4.5   | 3.7   | 16.8   |

\* Does not include methadone used to treat addiction.

### OXYCODONE by age group, statewide, OR, 10/01/11 to 03/31/12

| Age (in years) | Prescription<br>Recipient Count<br>in 6 months | Number of<br>prescriptions<br>dispensed in 6<br>months | Number of<br>prescriptions<br>dispensed per<br>prescription<br>recipient in 6<br>months | Number of<br>people receiving<br>prescriptions, per<br>1,000 residents | Number of<br>prescriptions<br>dispensed per<br>1,000 residents |
|----------------|--|--|---|--|--|
| 1 - 14         | 1,656  | 2,113  | 1.3   | 2.3  | 2.9  |
| 15 - 24        | 20,491   | 34,323   | 1.7   | 40.4   | 67.7   |
| 25 - 34        | 35,791   | 83,440   | 2.3   | 67.7   | 157.9  |
| 35 - 44        | 35,349   | 96,074   | 2.7   | 69.9   | 189.9  |
| 45 - 54        | 42,693   | 135,457  | 3.2   | 79.9   | 253.4  |
| 55 - 64        | 40,757   | 127,373  | 3.1   | 79.5   | 248.4  |
| 65 - 74        | 22,603   | 61,982   | 2.7   | 74.1   | 203.3  |
| 75 - 84        | 10,109   | 26,316   | 2.6   | 59.7   | 155.4  |
| 85+            | 4,051  | 10,611   | 2.6   | 52.0   | 136.1  |
| TOTAL          | 213,500  | 577,689  | 2.7   | 55.3   | 149.8  |

### HYDROCODONE by age group, statewide, OR, 10/01/11 to 03/31/12

| Age (in years) | Prescription<br>Recipient Count<br>in 6 months | Number of<br>prescriptions<br>dispensed in 6<br>months | Number of<br>prescriptions<br>dispensed per<br>prescription<br>recipient in 6<br>months | Number of<br>people receiving<br>prescriptions,<br>per 1,000<br>residents | Number of<br>prescriptions<br>dispensed per<br>1,000 residents |
|----------------|--|--|---|---|--|
| 1 - 14         | 8,442  | 10,490   | 1.2   | 11.8  | 14.6   |
| 15 - 24        | 47,183   | 72,590   | 1.5   | 93.0  | 143.1  |
| 25 - 34        | 68,100   | 138,192  | 2.0   | 128.9   | 261.6  |
| 35 - 44        | 67,805   | 159,488  | 2.4   | 134.0   | 315.2  |
| 45 - 54        | 81,033   | 220,199  | 2.7   | 151.6   | 411.9  |
| 55 - 64        | 80,197   | 216,647  | 2.7   | 156.4   | 422.5  |
| 65 - 74        | 48,505   | 122,290  | 2.5   | 159.1   | 401.0  |
| 75 - 84        | 25,679   | 63,739   | 2.5   | 151.7   | 376.4  |
| 85+            | 11,331   | 27,231   | 2.4   | 145.4   | 349.4  |
| TOTAL          | 438,275  | 1,030,866  | 2.4   | 113.6   | 267.2  |

### Unique recipient count for opioids by age group, statewide, OR, 10/01/11 to 03/31/12

| Age (in<br>years) | Prescription<br>Recipient Count<br>in 6 months | Number of<br>prescriptions<br>dispensed in 6<br>months | Number of<br>prescriptions<br>dispensed per<br>prescription<br>recipient in 6<br>months | Number of<br>people receiving<br>prescription, per<br>1,000 residents | Number of<br>prescriptions<br>dispensed per<br>1,000 residents |
|-------------------|--|--|---|---|--|
| 1 - 14            | 9,952  | 12,968   | 1.3   | 13.9  | 18.1   |
| 15 - 24           | 62,147   | 109,811  | 1.8   | 122.5   | 216.5  |
| 25 - 34           | 93,963   | 239,079  | 2.5   | 177.9   | 452.5  |
| 35 - 44           | 94,613   | 291,795  | 3.1   | 187.0   | 576.7  |
| 45 - 54           | 115,510  | 425,036  | 3.7   | 216.1   | 795.0  |
| 55 - 64           | 115,134  | 419,282  | 3.6   | 224.5   | 817.6  |
| 65 - 74           | 68,201   | 218,115  | 3.2   | 223.7   | 715.3  |
| 75 - 84           | 35,583   | 107,866  | 3.0   | 210.1   | 637.0  |
| 85+               | 16,882   | 48,582   | 2.9   | 216.6   | 623.3  |
| TOTAL             | 611,985  | 1,872,534  | 3.1   | 158.6   | 485.4  |

Opioids include: Hydrocodone, Oxycodone, Morphine, Methadone, Fentanyl, and Hydromorphone.

# Factors among decedents in methadone overdose, OR, N=56

- 41% had prescriptions 30% did not
- Misuse or abuse contributed to death in 77%
- Hx of substance abuse in 75%
- Hx of substance abuse treatment in 21%
- Hx of mental illness in 52%

Opioid overdose: factors among decedents

Washington:

 Medicaid population at high risk - 5.7 times higher risk of death\*

Utah:

- 40% of decedents had Hx of substance abuse;
- 49% diagnosed with mental illness\*\*

\*Centers for Disease Control and Prevention (CDC). Overdose deaths involving prescription opioids among Medicaid enrollees - Washington, 2004-2007. MMWR Morb Mortal Wkly Rep. 2009 Oct 30;58(42):1171-5

\*\*Utah Drug Overdose Mortality Project: http://www.health.utah.gov/prescription/

#### Data recap

- Over 600k Oregonians were prescribed opioids last year
- 53% of drug overdoses in Oregon associated with prescription opioids
- Over 40% of deceased have multiple drugs on board
- Patients with hx of substance abuse hx and/or mental illness have greatly increased risk for overdose
- Medicaid population over represented in overdose data
- About 30% of all drug-related deaths associated with methadone
- Misuse, abuse, and potentiating effects contribute to deaths

#### Prevention and countermeasures

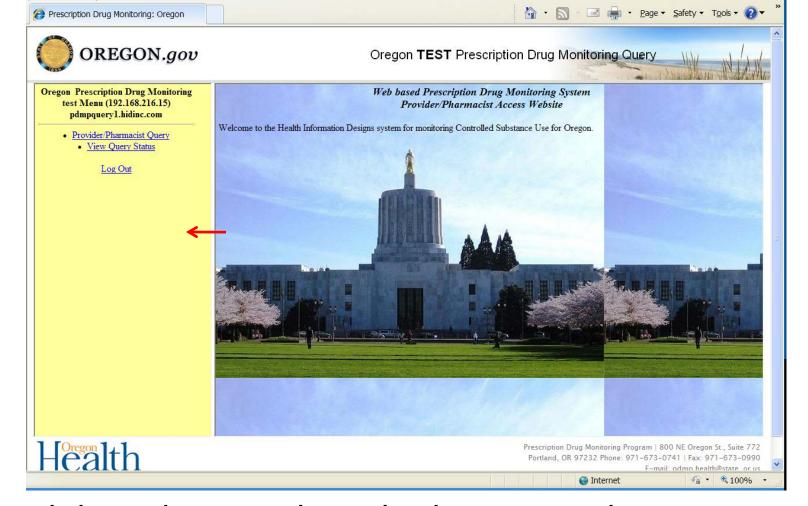
- Mandatory provider education on opioid use for pain
- Practice guidelines for dosing and patient management
- Single copy, serialized paper prescription forms
- E-prescribing
- Lock-in programs in Medicaid
- Naloxone programs
- Drug courts
- Drug Take Back events
- Prescription Drug Monitoring Programs
- Addiction treatment
- Pain management specialty clinics
- LEA efforts to combat drug crime

#### Purposes of prescription monitoring

- Support access to legitimate medical use of controlled substances
- Identify and deter or prevent drug misuse, abuse and diversion
- Facilitate and encourage the identification, intervention and treatment of persons addicted to prescription drugs
- Inform public health initiatives through use of aggregated data.
- Educate individuals about PDMPs and the use, misuse, abuse and diversion of and addiction to prescription drugs

#### Other potential benefits...

- Improve health outcomes by reducing overdose rates
- Improve pain management
- Increase public awareness of prescription drug abuse problem
- Reduce hospital emergency room visits attributed to prescription drug overdose and misuse
- Reduce drug diversion
- Reduce patient data shopping
- Reduce financial losses to health care providers, hospitals and pharmacies due to lost time and productivity
- Reduce costs due to lost productivity to employers, employee lost wages, drug rehabilitation expenses



Web based system launched in September 2011 Collects data from pharmacies Users have passed an authentication process and are allowed to access to patient data Program evaluation – Result: Overall positive - program shows promise

Providers who "strongly agreed" or "agreed" that it would....

- likely improve management of patient prescriptions for controlled substances - 92%
- likely engender interest for most providers and pharmacists for registering as users - 92%
- likely increase communication between providers 80%
- likely have an impact 82%

Result: Most registered users indicated that the program had been "very helpful" in:

 helping to monitor patients' controlled substances prescriptions (65%), and

• helping to control "doctor shopping" (64%).

#### Result: Top reasons for using the system

 Assess controlled substance use for patients who might be over using (71% of pharmacists and 86% of providers).

2. Assess controlled substance use of new patients (59% of pharmacists and 72% of providers).

#### Result: Actions taken after using system

- Spoken with a patient about controlled substance use - 78%
- Confirmed patient not misusing prescriptions 68%
- Confirmed patient was doctor shopping 59%
- Reduced or eliminated prescriptions for a patient 59%
- Contacted other providers or pharmacies 49%

**Result: Increased communication** 

About 2 in 3 system users reported communicating more as a result of using the system with...

- Clinicians and staff inside my practice (64%)
- Providers who write prescriptions (67%)
- Pharmacists (63%)
- Patients (79%)

#### Result: Suggestions

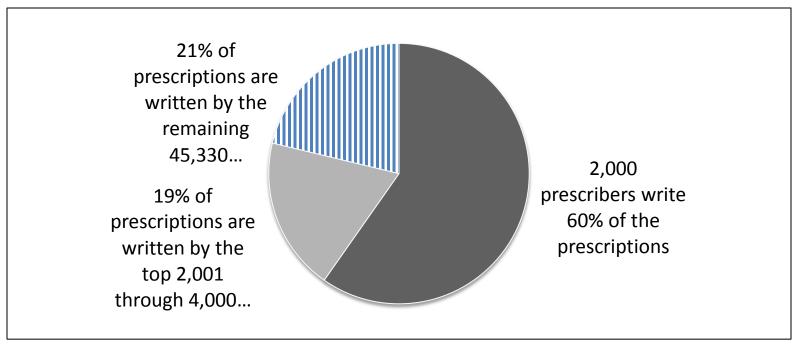
Important themes for registered providers:

- Allow for support staff to have access to the program (#1 theme)
- Encourage wider participation
- Make login and overall interface easier to use and more responsive (faster)
- Improve technical issues related to registering
- Allow for information to be more up-to-date

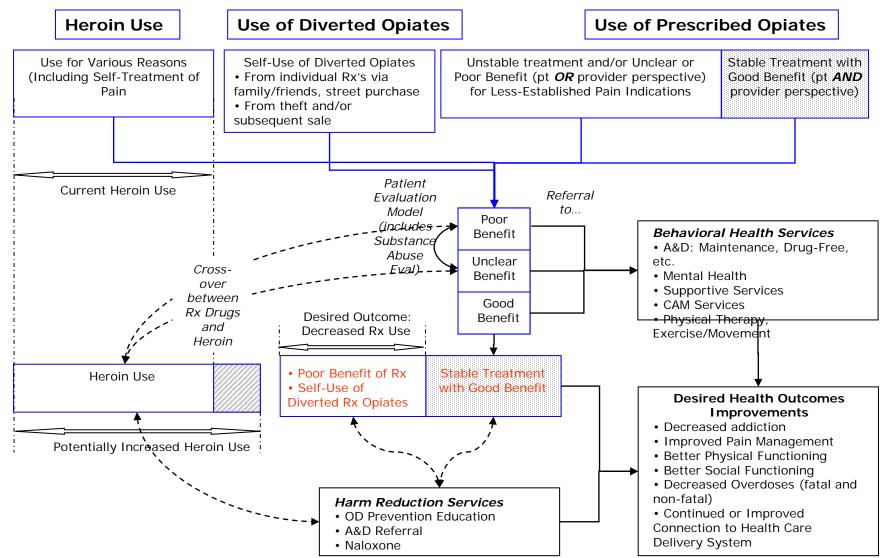
### Ongoing work aimed at prevention

1. Enroll 100% of top 2,000 prescribers.

Percentage of CS II-IV prescriptions written by prescriber cohort, OR, 1/2012 to 9/2012, n = 49,330



### 2. Engage local public health officials in efforts to increase use of prescribing guidelines & practice improvements



#### 3. Disseminate toolkit resources

#### Prescription controlled substance toolkit Health System Level Interventions

| Strategies   | Links   | References                         |
|--|---|------------------------------------|
| Integrate PDMP patient data  | Oregon Prescription Drug Monitoring Program   | Joranson et al., 2002 <sup>1</sup> |
| reviews when prescribing a<br>new controlled substance, for<br>early refill requests, and as | http://www.orpdmp.com/  | GAO 2002 <sup>2</sup>              |
| part of pain management<br>routines; enroll providers and                                    |   | Brushwood 2003 <sup>3</sup>        |
| develop system use<br>protocols.   |   | Manchikanti 2007 <sup>4</sup>      |
| protocors.   |   | MITRE 2012 <sup>5</sup>            |
| Integrate mental health and  | Screening, brief intervention, and referral to treatment  | Grattan et al., 2012 <sup>6</sup>  |
| substance abuse screening into the health care standard                                      | http://www.sbirtoregon.org/   | Nease and Maloin 2003 <sup>7</sup> |
| of care for all ages; refer to   | Depression Screening  |                                    |
| behavioral health services<br>and detoxification centers.                                    | http://www.jfponline.com/pdf/5202/5202jfp_appliedevidence1.pdf  |                                    |
|  | Clinical Drug Testing<br>http://www.kap.samhsa.gov/products/manuals/pdfs/TAP32.pdf  |                                    |
|  | SAMHSA Mental Health Treatment Locator<br><u>http://findtreatment.samhsa.gov/MHTreatmentLocator/faces/quickSearch.</u><br><u>jspx</u>       |                                    |
|  | SAMHSA Drug and Alcohol Abuse Treatment Locator   |                                    |
| Lock at-risk patients into one   | <u>http://findtreatment.samhsa.gov/TreatmentLocator/faces/quickSearch.jspx</u><br>SAMHSA TIP 54: Managing Chronic Pain in Adults With or in | Cantrill et al., 2012 <sup>8</sup> |
| prescriber and one dispenser.  | Recovery From Substance Use Disorder  | Culturi Ct un, 2012                |
|  | http://store.samhsa.gov/product/TIP-54-Managing-Chronic-Pain-in-<br>Adults-With-or-in-Recovery-From-Substance-Use-Disorders/SMA12-          |                                    |

- 4. Develop and disseminate a tool on use of PDMP report w/ patients.
- 5. Engage county substance abuse prevention specialists to disseminate public information.
- 6. Develop and test social norm change messages.
- 7. Maintain data workgroup activities.
- 8. Continue evaluation activities aimed at measuring community health outcomes.

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