



Prescription Drug Dispensing in Oregon

October 1, 2011 – March 31, 2012

Schedules II-IV Medications Dispensed in Oregon
Statewide

Oregon
Health
Authority

PUBLIC HEALTH DIVISION
Prescription Drug Monitoring Program

Prescription Controlled Substance Dispensing in Oregon: October 1, 2011 – March 31, 2012

Selected Schedule II – IV Medications

Statewide Data Report

Prescription Drug Monitoring Program

Center for Prevention and Health Promotion

Oregon Public Health Division

Oregon Health Authority

Technical Contact: Heidi Murphy, Heidi.R.Murphy@state.or.us

PDMP Program Contact: Todd Beran, Todd.Beran@state.or.us

October 2012

Acknowledgements

The following people serve on the data workgroup that guided the development of this report.

Dagan Wright, PhD, MSPH
Center for Prevention & Health Promotion,
Oregon Health Authority

Wayne Wakeland, PhD, Associate Professor,
Systems Science Program, Portland State
University

Heidi Murphy, MPH
Center for Prevention & Health Promotion,
Oregon Health Authority

Ted Williams, Clinical Pharmacist, Oregon
State University/Oregon Health Sciences
University College of Pharmacy Drug Use
Research & Management Group

Todd Beran, MA
Center for Prevention and Health Promotion,
Oregon Health Authority

Rick Deyo, MD, Professor, Department of
Family Medicine, Oregon Health Sciences
University

Gary Schnabel, RN, RPh, Executive Director,
Oregon Board of Pharmacy Faculty

Sally Logan, RPh, Kaiser Permanente,
Outpatient Pharmacy Quality Coordinator

Brad Anderson, MD, Kaiser Permanente Chief,
Department of Addiction Medicine

The following staff contributed to the development of this report.

Lisa Millet, MSH
Injury & Violence Prevention Programs
Center for Prevention & Health Promotion,
Oregon Health Authority

Samantha Greene
Center for Prevention & Health Promotion,
Oregon Health Authority

Bruce Gutelius, MD, MPH
Deputy State Epidemiologist, Interim
Administrator for the Center for Prevention &
Health Promotion, Oregon Health Authority

Mary Yang
Center for Prevention & Health Promotion,
Oregon Health Authority

Katrina Hedberg, MD, MPH
State Epidemiologist, Chief Science Officer,
Oregon Public Health Division, Oregon Health
Authority

Table of Contents

List of Tables	2
List of Figures	2
Executive Summary	3
Data	7
Statewide Population	7
Opiate Narcotic Analgesics	8
Benzodiazepines	15
Other Drugs	22
Prescription Drug Combinations	27
Prescribers Using the System	29
Patients with High Use Profiles	32
Discussion	33
Recommendations	33
Glossary of Terms	34

List of Tables

Table 1. Statewide, Oregon. Population, 2011	7
Table 2. Unique Recipient Count for Opioids by Age Group	8
Table 3. HYDROCODONE by Age Group.....	9
Table 4. OXYCODONE by Age Group	10
Table 5. MORPHINE by Age Group.....	11
Table 6. METHADONE by Age Group	12
Table 7. FENTANYL by Age Group	13
Table 8. HYDROMORPHONE by Age Group.....	14
Table 9. Unique Recipient Count for Benzodiazepines by Age Group.....	15
Table 10. ALPRAZOLAM by Age Group,	16
Table 11. CLONAZEPAM by Age Group	17
Table 12. DIAZEPAM by Age Group.....	18
Table 13. LORAZEPAM by Age Group	19
Table 14. TEMAZEPAM by Age Group.....	20
Table 15. ZOLPIDEM by Age Group	21
Table 16. AMPHET by Age Group	22
Table 17. METHYLPHENIDATE by Age Group	23
Table 18. ACETAMINOPHEN WITH CODEINE by Age Group	24
Table 19. TESTOSTERONE by Age Group	25
Table 20. CARISOPRODOL by Age Group.....	26
Table 21. OPIOID and BENZODIAZEPINE Combination by Age Group.....	27
Table 22. OPIOID and ZOLPIDEM/ZALEPLON Combination by Age Group	28
Table 23. Number of opioid prescriptions per 1,000 residents, by type, county & statewide.....	29
Table 24. Estimated number of providers registered for a PDMP account by county	31
Table 25. Count of patients filling prescriptions from multiple prescribers and pharmacies.....	32

List of Figures

Figure 1. Percentage of total CS II-IV prescriptions written by prescriber cohort.....	30
--	----

Executive Summary

In 2009, the Oregon Legislature passed Senate Bill 355 mandating the Oregon Health Authority to develop a Prescription Drug Monitoring Program (PDMP). The program became operational in September 2011. The PDMP is an electronic Web-based data system that collects data on the controlled prescription medications dispensed in the state by retail pharmacies.

Controlled substance prescription information collected by the PDMP includes opioids, sedative hypnotics, benzodiazepines, stimulants, and other drugs. Opioids are the most frequently prescribed controlled substance. Opioids are prescribed to control pain – pain that is the result of injury, ambulatory surgery, inpatient surgery, cancer care, pain that is a chronic problem, and end-of-life care. It is helpful to keep in mind the variety of conditions that these medicines are prescribed for when examining the PDMP data because the PDMP data do not include clinical diagnostic information. The following information can provide the reader with a frame of reference to use when considering the magnitude of medically necessary prescription of controlled substances:

- Twenty percent of Oregonians (about 760,000 people) live with chronic pain,¹
- More than 100,000 injuries are treated in emergency departments each year,²
- About 5.5 percent of Oregonians (213,000 people) had surgical visits,³
- An estimated 18 percent of adults ages 18 and older (about 500,000 people) have an anxiety disorder,⁴ and
- About 8,000 Oregonians die due to cancer each year and about 20,000 new cases of cancer are diagnosed among Oregonians each year.⁵

The statewide PDMP data provided below – and additional 36 county-level reports – are the first to examine the dispensing of the most-often prescribed controlled substances and selected prescription drugs.

Statewide Findings

Between Oct. 1, 2011, and March 31, 2012:

More than 3.4 million prescriptions for Schedules II-IV controlled substances were dispensed by retail pharmacies to Oregonians; of these, more than 1.8 million prescriptions were for opioids.

¹ Institute of Medicine, 2011. *Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education, and Research*. Washington D.C.: The National Academies Press http://www.nap.edu/catalog.php?record_id=13172

² Estimate from unpublished analysis of Oregon All Payer All Claims healthcare data, 2010, Oregon Health Authority, Injury and Violence Prevention Program, Portland.

³ Russo, C.A. (Thomson Reuters), Elixhauser, A. (AHRQ), Steiner, C. (AHRQ), and Wier, L. (Thomson Reuters). *Hospital-Based Ambulatory Surgery, 2007*. HCUP Statistical Brief #86. February 2010. Agency for Healthcare Research and Quality, Rockville, MD. <http://www.hcup-us.ahrq.gov/reports/statbriefs/sb86.pdf>.

⁴ Kessler RC, Chiu WT, Demler O, Walters EE. Prevalence, severity, and comorbidity of twelve-month DSM-IV disorders in the National Comorbidity Survey Replication (NCS-R). *Archives of General Psychiatry*, 2005 Jun;62(6):617-27.

⁵ Oregon Cancer Registry

More than 600,000 Oregonians received at least one prescription opiate. These patients received an average of three opiate prescriptions -- 159 people per 1,000 residents received an opiate prescription (Table 2).

More than 975,000 prescriptions for benzodiazepines were dispensed by retail pharmacies to more than 300,000 people (Table 9).

Almost 109,000 Oregonians received prescriptions for both an opiate and a benzodiazepine (Table 21).

Sixty percent of the total Schedule II-IV controlled substance prescriptions dispensed were prescribed by 2,000 prescribers (Figure 1). Among those 2,000 prescribers, 55 percent are registered PDMP system users.

Threshold measures that indicate potential drug seeking indicate: 1,746 patients filled prescriptions from at least 5 different prescribers and at 5 different pharmacies; 69 patients filled prescriptions from at least 10 different prescribers and at 10 different pharmacies; and 18 patients filled prescriptions from at least 15 different prescribers and at 15 different pharmacies (Table 25).

Background

Oregon-licensed retail pharmacies are required to submit prescription information to the PDMP system for all Schedule II – IV controlled substances dispensed. Prescribers are permitted to access PDMP information on their patients. Pharmacists are permitted to access PDMP information on their customers. The intent of the PDMP is to help healthcare providers improve care for their patients and prevent some of the problems associated with controlled substances.

The Oregon PDMP provides authenticated system users who are licensed to prescribe schedule II, III, and IV drugs electronic 24-hour, seven-day-a-week access to patient level data on controlled substances dispensed to the patient by licensed pharmacies. The PDMP data allow a health care provider to see a report of the medicines that are dispensed to his or her patient and prescribed by any additional health care providers who serve his or her patient.

Health care providers can examine the purchasing history of a patient to monitor and discuss controlled substance use as part of pain management and screen for substance misuse and abuse. Opioids are the class of medicines that has the highest potential for overdose, misuse, dependence, and abuse. Other classes of controlled substance medicines are commonly prescribed in combination with opioids. The PDMP is a useful tool for health care providers who prescribe controlled substances as part of a patient treatment plan. The evaluation results of health care provider use of the system in the early implementation of the PDMP are not the topic of this report. Information on health care provider system use is the topic of an upcoming report.

Introduction

Patient use of controlled prescribed medications is an important part of medically necessary treatment plans for many health problems. Patient use is monitored by health care providers because these medicines place patients at risk for overdose, side effects, potentiation when combined with alcohol and/or other drugs, risk for physical dependence, and risk for developing patterns of drug abuse.

Controlled substance prescription information collected by the PDMP includes opioids, sedative hypnotics, benzodiazepines, stimulants, and other drugs. Opioids are the most frequently prescribed controlled substance. Opioids are prescribed to control pain – pain that is the result of injury, ambulatory surgery, inpatient surgery, cancer care, pain that is a chronic problem, and end-of-life care. It is helpful to keep in mind the variety of conditions that these medicines are prescribed for when examining the PDMP data because the PDMP data do not include diagnostic information. The following information can provide the reader with a frame of reference to use when considering the magnitude of medically necessary prescribing of controlled substances:

- Twenty percent of Oregonians (about 760,000 people) live with chronic pain,⁶
- More than 100,000 injuries are treated in emergency departments each year,⁷
- About 5.5 percent of Oregonians (213,000 people) had surgical visits,⁸
- About 18 percent of adults ages 18 and older (about 500,000 people) have an anxiety disorder,⁹ and
- About 8,000 Oregonians die due to cancer each year and about 20,000 new cases of cancer are diagnosed among Oregonians each year.¹⁰

Certainly, not all of the individuals experiencing these and other conditions receive controlled substances throughout an entire year. However, many patients rely on controlled substances to heal from injury and surgery, to endure cancer and end-of-life pain, to mitigate symptoms of mental disorders, and to control chronic pain.

The statewide aggregated data report – and 36 county level reports – can be used to inform, develop, and implement population-based prevention approaches to reduce prescription drug overdose, such as public information campaigns and clinical guidance.

⁶ Institute of Medicine, 2011. *Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education, and Research*. Washington D.C.: The National Academies Press http://www.nap.edu/catalog.php?record_id=13172

⁷ Estimate from unpublished analysis of Oregon All Payer All Claims healthcare data, 2010, Oregon Health Authority, Injury and Violence Prevention Program, Portland.

⁸ Russo, C.A. (Thomson Reuters), Elixhauser, A. (AHRQ), Steiner, C. (AHRQ), and Wier, L. (Thomson Reuters). *Hospital-Based Ambulatory Surgery, 2007*. HCUP Statistical Brief #86. February 2010. Agency for Healthcare Research and Quality, Rockville, MD. <http://www.hcup-us.ahrq.gov/reports/statbriefs/sb86.pdf>.

⁹ Kessler RC, Chiu WT, Demler O, Walters EE. Prevalence, severity, and comorbidity of twelve-month DSM-IV disorders in the National Comorbidity Survey Replication (NCS-R). *Archives of General Psychiatry*, 2005 Jun;62(6):617-27.

¹⁰ Oregon Cancer Registry

Data Limitations

Diagnosis information is not included with the prescription information in the PDMP data. This limits any conclusions that could be drawn with respect to the underlying problems that medicines are prescribed to address.

The PDMP statute directs retail pharmacies dispensing schedule II-IV drugs to submit prescription data to the Oregon Health Authority within seven days of dispensing. Pharmacies began submitting data in June 2011. By October 2011, 76 percent of all pharmacies were submitting data. The compliance with data submission increased to 97 percent by the end of March 2012.

Data submitted by pharmacies can contain errors. Each data submission is checked for errors and if the data contains errors it is sent back to the pharmacy to be corrected and resubmitted. However, not all errors are found or corrected.

The sex of the patient, method of payment, diagnosis, days supplied, and refill information are not collected as they are not included in the data variables allowed in statute.

The system is not able to convert prescriptions to morphine equivalent doses (MEDs), so dosage information is omitted from these reports to avoid possible confusion.

Data in table cells containing counts of less than ten are suppressed. This is done to protect the privacy of individuals when reporting county-specific data for each of Oregon's 36 counties.

Discussion

Prescription drug overdose, dependence, and addiction are serious public health problems. The PDMP provides health care providers with a tool to identify and address these problems. The PDMP mission is to use data to improve health care by offering health care providers and pharmacists information about prescription controlled substances, reduce prescription overdose, decrease “doctor shopping” – a patient obtaining controlled substances from multiple health care providers without the prescribers’ knowledge of the other prescriptions – and decrease misuse of prescription controlled substances. A balanced approach to this work includes an understanding of the need to preserve access to medicines for the management of pain while decreasing the misuse of prescription controlled substances. The PDMP data group welcomes input and questions.

Recommendations

- Assure that the top 2,000 prescribers have system accounts.
- Produce and disseminate a tool for system users on how to use a PDMP report with a patient.
- Disseminate information about the PDMP system and helpful resources through licensing boards and health care provider associations.

Data

Statewide Population

Table 1. Statewide, Oregon. Population, 2011*

Age (in years)	Population
0 – 14	716,384
15 – 24	507,315
25 – 34	528,317
35 – 44	505,962
45 - 54	534,643
55 - 64	512,814
65 - 74	304,927
75 - 84	169,325
85+	77,938
TOTAL	3,857,625
<i>*2011 population estimates, Population Research Center, Portland State University.</i>	

Opiate Narcotic Analgesics

Table 2. Unique Recipient Count for Opioids by Age Group, Statewide, OR, 10/01/11 to 03/31/12

Age (in years)	Prescription Recipient Count in 6 months	Number of prescriptions dispensed in 6 months	Number of prescriptions dispensed per prescription recipient in 6 months	Number of people receiving prescription, per 1,000 residents	Number of prescriptions dispensed per 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.

Notes on Table Information

Column 2 includes data for: Prescription recipients – these are number of **unique individuals who received prescriptions** in six months

Column 3 includes data for: Number of **prescriptions dispensed in the area** – either state or county in six months

Column 4 includes data for: Number of **prescriptions dispensed per prescription recipient** (original and refills) in six months

Column 5 includes data for: A rate for prescription recipients – this rate is the number of **people** who received a prescription per 1,000 residents.

Column 6 includes data for: A rate for prescriptions dispensed – this rate is the number of **prescriptions that individuals** received per 1,000 residents.

Table 3. HYDROCODONE by Age Group, Statewide, OR, 10/01/11 to 03/31/12

Age (in years)	Prescription Recipient Count in 6 months	Number of prescriptions dispensed in 6 months	Number of prescriptions dispensed per prescription recipient in 6 months	Number of people receiving prescriptions, per 1,000 residents	Number of prescriptions dispensed per 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

Hydrocodone Hydrocodone is available only in combination with other ingredients, and different combination products are prescribed for different uses. Some hydrocodone products are used to relieve moderate to severe pain. Other hydrocodone products are used to relieve cough. Hydrocodone is in a class of medications called opiate narcotic analgesics and in a class of medications called antitussives. Hydrocodone relieves pain by changing the way the brain and nervous system respond to pain. Hydrocodone relieves cough by decreasing activity in the part of the brain that causes coughing.

Brand names: Vicodin, Lorcet, Lortab, Norco

Table 4. OXYCODONE by Age Group, Statewide, OR, 10/01/11 to 03/31/12

Age (in years)	Prescription Recipient Count in 6 months	Number of prescriptions dispensed in 6 months	Number of prescriptions dispensed per prescription recipient in 6 months	Number of people receiving prescriptions, per 1,000 residents	Number of prescriptions dispensed per 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

Oxycodone Oxycodone is used to relieve moderate to severe pain. Oxycodone is in a class of medications called opiate narcotic analgesics. It works by changing the way the brain and nervous system respond to pain.

Brand names: Dazidox, Endocet, ETH-Oxydose, Endocodone, Oxecta, Oxy IR, Oxycontin, Oxyfast, Percocet, Percolone, Roxicodone

Table 5. MORPHINE by Age Group, Statewide, OR, 10/01/11 to 03/31/12

Age (in years)	Prescription Recipient Count in 6 months	Number of prescriptions dispensed in 6 months	Number of prescriptions dispensed per prescription recipient in 6 months	Number of people receiving prescriptions, per 1,000 residents	Number of prescriptions dispensed per 1,000 residents
1 - 14	49	94	1.9	0.1	0.1
15 - 24	305	779	2.6	0.6	1.5
25 - 34	1,462	5,928	4.1	2.8	11.2
35 - 44	3,151	14,575	4.6	6.2	28.8
45 - 54	6,560	31,859	4.9	12.3	59.6
55 - 64	7,737	36,011	4.7	15.1	70.2
65 - 74	4,436	16,868	3.8	14.5	55.3
75 - 84	2,839	8,316	2.9	16.8	49.1
85+	2,621	4,801	1.8	33.6	61.6
TOTAL	29,160	119,231	4.1	7.6	30.9

Morphine Morphine is used to relieve moderate to severe pain. Morphine long-acting tablets and capsules are only used by patients who are expected to need medication to relieve moderate to severe pain around-the-clock for longer than a few days. Morphine is in a class of medications called opiate narcotic analgesics. It works by changing the way the body senses pain.

Brand names: Avinza, Kadian, MS Contin, Oramorph, Roxanol

Table 6. METHADONE* by Age Group, Statewide, OR, 10/01/11 to 03/31/12

Age (in years)	Prescription Recipient Count in 6 months	Number of prescriptions dispensed in 6 months	Number of prescriptions dispensed per prescription recipient in 6 months	Number of people receiving prescriptions, per 1,000 residents	Number of prescriptions dispensed per 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.*

Methadone Methadone is used to relieve moderate to severe pain that has not been relieved by non-narcotic pain relievers. It also is used to prevent withdrawal symptoms in patients who were addicted to opiate drugs and are enrolled in treatment programs in order to stop taking or continue not taking the drugs. Methadone is in a class of medications called opiate narcotic analgesics. Methadone works to treat pain by changing the way the brain and nervous system respond to pain. It also works as a substitute for opiate drugs of abuse by producing similar effects and preventing withdrawal symptoms in people who have stopped using these drugs. Methadone has a very long half-life (stays in the body a long time).

Brand names: Dolophine, Methadose

Table 7. FENTANYL by Age Group, Statewide, OR, 10/01/11 to 03/31/12

Age (in years)	Prescription Recipient Count in 6 months	Number of prescriptions dispensed in 6 months	Number of prescriptions dispensed per prescription recipient in 6 months	Number of people receiving prescriptions, per 1,000 residents	Number of prescriptions dispensed per 1,000 residents
1 - 14	76	144	1.9	0.1	0.2
15 - 24	84	256	3.0	0.2	0.5
25 - 34	472	1,906	4.0	0.9	3.6
35 - 44	1,071	4,811	4.5	2.1	9.5
45 - 54	2,090	9,406	4.5	3.9	17.6
55 - 64	2,585	10,877	4.2	5.0	21.2
65 - 74	1,806	6,706	3.7	5.9	22.0
75 - 84	1,567	5,728	3.7	9.3	33.8
85+	1,258	4,431	3.5	16.1	56.9
TOTAL	11,009	44,265	4.0	2.9	11.5

Fentanyl Fentanyl is a powerful synthetic opiate analgesic similar to but more potent than morphine. It is typically used to treat patients with severe pain, or to manage pain after surgery. It is also sometimes used to treat people with chronic pain who are physically tolerant to opiates. Fentanyl is in a class of medications called opiate narcotic analgesics. It works by changing the way the brain and nervous system respond to pain.

Brand names: Abstral, Actiq, Duragesic, Fentora, Onsolis, Sublimaze

Table 8. HYDROMORPHONE by Age Group, Statewide, OR, 10/01/11 to 03/31/12

Age (in years)	Prescription Recipient Count in 6 months	Number of prescriptions dispensed in 6 months	Number of prescriptions dispensed per prescription recipient in 6 months	Number of people receiving prescriptions, per 1,000 residents	Number of prescriptions dispensed per 1,000 residents
1 - 14	33	50	1.5	0.0	0.1
15 - 24	679	1,242	1.8	1.3	2.4
25 - 34	1,718	3,908	2.3	3.3	7.4
35 - 44	2,415	5,806	2.4	4.8	11.5
45 - 54	3,303	8,664	2.6	6.2	16.2
55 - 64	3,401	8,792	2.6	6.6	17.1
65 - 74	1,832	4,020	2.2	6.0	13.2
75 - 84	755	1,671	2.2	4.5	9.9
85+	230	511	2.2	3.0	6.6
TOTAL	14,366	34,664	2.4	3.7	9.0

Hydromorphone Hydromorphone is used to relieve moderate to severe pain. It also may be used to decrease coughing. Hydromorphone is in a class of medications called opiate narcotic analgesics and in a class of medications called antitussives.

Brand names: Dilaudid, Exalgo, Hydrostat, Palladone

Benzodiazepines

Table 9. Unique Recipient Count for Benzodiazepines by Age Group, Statewide, OR, 10/01/11 to 03/31/12

Age (in years)	Prescription Recipient Count in 6 months	Number of prescriptions dispensed in 6 months	Number of prescriptions dispensed per prescription recipient in 6 months	Number of people receiving prescription, per 1,000 residents	Number of prescriptions dispensed per 1,000 residents
1 - 14	3,042	5,576	1.8	4.2	7.8
15 - 24	14,747	34,050	2.3	29.1	67.1
25 - 34	36,491	104,792	2.9	69.1	198.4
35 - 44	49,029	154,875	3.2	96.9	306.1
45 - 54	66,365	228,140	3.4	124.1	426.7
55 - 64	71,431	239,665	3.4	139.3	467.4
65 - 74	41,518	125,315	3.0	136.2	411.0
75 - 84	22,173	64,585	2.9	130.9	381.4
85+	10,758	28,823	2.7	138.0	369.8
TOTAL	315,554	985,821	3.1	81.8	255.6
<p><i>Benzodiazepines include: Alprazolam, Clonazepam, Diazepam, Lorazepam, Temazepam, and Zolpidem.</i></p> <p><i>*Cell sizes less than 10 for prescription recipient count have been suppressed.</i></p>					

Table 10. ALPRAZOLAM by Age Group, Statewide, OR, 10/01/11 to 03/31/12

Age (in years)	Prescription Recipient Count in 6 months	Number of prescriptions dispensed in 6 months	Number of prescriptions dispensed per prescription recipient in 6 months	Number of people receiving prescriptions, per 1,000 residents	Number of prescriptions dispensed per 1,000 residents
1 - 14	457	734	1.6	0.6	1.0
15 - 24	3,327	7,120	2.1	6.6	14.0
25 - 34	9,589	24,384	2.5	18.2	46.2
35 - 44	12,367	33,280	2.7	24.4	65.8
45 - 54	15,653	45,428	2.9	29.3	85.0
55 - 64	15,757	44,856	2.8	30.7	87.5
65 - 74	8,413	21,804	2.6	27.6	71.5
75 - 84	4,243	11,219	2.6	25.1	66.3
85+	1,859	4,583	2.5	23.9	58.8
TOTAL	71,665	193,408	2.7	18.6	50.1

Alprazolam Alprazolam is used to treat anxiety disorders and panic disorder (sudden, unexpected attacks of extreme fear and worry about these attacks). Alprazolam is in a class of medications called benzodiazepines. It works by decreasing abnormal excitement in the brain.

Brand names: Xanax

Table 11. CLONAZEPAM by Age Group, Statewide, OR, 10/01/11 to 03/31/12

Age (in years)	Prescription Recipient Count in 6 months	Number of prescriptions dispensed in 6 months	Number of prescriptions dispensed per prescription recipient in 6 months	Number of people receiving prescriptions, per 1,000 residents	Number of prescriptions dispensed per 1,000 residents
1 - 14	416	1,232	3.0	0.6	1.7
15 - 24	2,933	8,084	2.8	5.8	15.9
25 - 34	7,063	22,286	3.2	13.4	42.2
35 - 44	8,756	29,975	3.4	17.3	59.2
45 - 54	11,532	42,089	3.6	21.6	78.7
55 - 64	11,002	38,341	3.5	21.5	74.8
65 - 74	5,391	16,991	3.2	17.7	55.7
75 - 84	2,381	6,970	2.9	14.1	41.2
85+	793	2,318	2.9	10.2	29.7
TOTAL	50,267	168,286	3.3	13.0	43.6

Clonazepam Clonazepam is used alone or in combination with other medications to control certain types of seizures. It is also used to relieve panic attacks. Clonazepam is in a class of medications called benzodiazepines. It works by decreasing abnormal electrical activity in the brain.

Brand names: Klonopin, Klonopin Wafer

Table 12. DIAZEPAM by Age Group, Statewide, OR, 10/01/11 to 03/31/12

Age (in years)	Prescription Recipient Count in 6 months	Number of prescriptions dispensed in 6 months	Number of prescriptions dispensed per prescription recipient in 6 months	Number of people receiving prescriptions, per 1,000 residents	Number of prescriptions dispensed per 1,000 residents
1 - 14	1,496	2,265	1.5	2.1	3.2
15 - 24	2,340	3,573	1.5	4.6	7.0
25 - 34	5,809	10,850	1.9	11.0	20.5
35 - 44	7,286	14,966	2.1	14.4	29.6
45 - 54	9,862	23,560	2.4	18.4	44.1
55 - 64	9,889	23,351	2.4	19.3	45.5
65 - 74	5,210	10,838	2.1	17.1	35.5
75 - 84	2,364	4,731	2.0	14.0	27.9
85+	789	1,590	2.0	10.1	20.4
TOTAL	45,045	95,724	2.1	11.7	24.8

Diazepam Diazepam is used to relieve anxiety, muscle spasms, and seizures and to control agitation caused by alcohol withdrawal. Diazepam is also used to treat irritable bowel syndrome and panic attacks. Diazepam is in a class of medications called benzodiazepines.

Brand names: Valium

Table 13. LORAZEPAM by Age Group, Statewide, OR, 10/01/11 to 03/31/12

Age (in years)	Prescription Recipient Count in 6 months	Number of prescriptions dispensed in 6 months	Number of prescriptions dispensed per prescription recipient in 6 months	Number of people receiving prescriptions, per 1,000 residents	Number of prescriptions dispensed per 1,000 residents
1 - 14	730	1,162	1.6	1.0	1.6
15 - 24	5,052	8,765	1.7	10.0	17.3
25 - 34	10,559	22,071	2.1	20.0	41.8
35 - 44	13,131	30,683	2.3	26.0	60.6
45 - 54	17,042	44,837	2.6	31.9	83.9
55 - 64	18,128	47,925	2.6	35.4	93.5
65 - 74	11,628	28,596	2.5	38.1	93.8
75 - 84	7,458	17,791	2.4	44.0	105.1
85+	4,973	10,563	2.1	63.8	135.5
TOTAL	88,701	212,393	2.4	23.0	55.1

Lorazepam Lorazepam is used to relieve anxiety. It is also used to treat irritable bowel syndrome, epilepsy, insomnia, and nausea and vomiting from cancer treatment and to control agitation caused by alcohol withdrawal. Lorazepam is in a class of medications called benzodiazepines. It works by slowing activity in the brain to allow for relaxation.

Brand names: Ativan

Table 14. TEMAZEPAM by Age Group, Statewide, OR, 10/01/11 to 03/31/12

Age (in years)	Prescription Recipient Count in 6 months	Number of prescriptions dispensed in 6 months	Number of prescriptions dispensed per prescription recipient in 6 months	Number of people receiving prescriptions, per 1,000 residents	Number of prescriptions dispensed per 1,000 residents
1 - 14	15	29	1.9	0.0	0.0
15 - 24	233	473	2.0	0.5	0.9
25 - 34	652	1,612	2.5	1.2	3.1
35 - 44	1,252	3,335	2.7	2.5	6.6
45 - 54	2,289	6,946	3.0	4.3	13.0
55 - 64	3,288	10,163	3.1	6.4	19.8
65 - 74	2,369	6,920	2.9	7.8	22.7
75 - 84	1,713	4,984	2.9	10.1	29.4
85+	937	2,830	3.0	12.0	36.3
TOTAL	12,748	37,292	2.9	3.3	9.7

Temazepam Temazepam is used on a short-term basis to treat insomnia. Temazepam is in a class of medications called benzodiazepines. It works by slowing activity in the brain to allow sleep.

Brand names: Restoril

Table 15. ZOLPIDEM by Age Group, Statewide, OR, 10/01/11 to 03/31/12

Age (in years)	Prescription Recipient Count in 6 months	Number of prescriptions dispensed in 6 months	Number of prescriptions dispensed per prescription recipient in 6 months	Number of people receiving prescriptions, per 1,000 residents	Number of prescriptions dispensed per 1,000 residents
1 - 14	85	154	1.8	0.1	0.2
15 - 24	2,783	6,032	2.2	5.5	11.9
25 - 34	8,974	23,575	2.6	17.0	44.6
35 - 44	14,966	42,619	2.8	29.6	84.2
45 - 54	21,852	65,244	3.0	40.9	122.0
55 - 64	25,243	74,999	3.0	49.2	146.2
65 - 74	14,353	40,147	2.8	47.1	131.7
75 - 84	6,639	18,885	2.8	39.2	111.5
85+	2,456	6,936	2.8	31.5	89.0
TOTAL	97,351	278,591	2.9	25.2	72.2

Zolpidem Zolpidem is used to treat insomnia. Zolpidem belongs to a class of medications called sedative-hypnotics. It works by slowing activity in the brain to allow sleep.

Brand names: Ambien, Zolpimist

Other Drugs

Table 16. AMPHET by Age Group, Statewide, OR, 10/01/11 to 03/31/12

Age (in years)	Prescription Recipient Count in 6 months	Number of prescriptions dispensed in 6 months	Number of prescriptions dispensed per prescription recipient in 6 months	Number of people receiving prescriptions, per 1,000 residents	Number of prescriptions dispensed per 1,000 residents
1 - 14	7,203	25,845	3.6	10.1	36.1
15 - 24	8,697	27,620	3.2	17.1	54.4
25 - 34	7,208	24,901	3.5	13.6	47.1
35 - 44	5,280	19,249	3.6	10.4	38.0
45 - 54	4,307	15,748	3.7	8.1	29.5
55 - 64	3,097	11,347	3.7	6.0	22.1
65 - 74	664	2,299	3.5	2.2	7.5
75 - 84	115	390	3.4	0.7	2.3
85+	26	86	3.3	0.3	1.1
TOTAL	36,597	127,485	3.5	9.5	33.0

Amphet Amphet is identified as amphetamine and dextroamphetamine extended release and is commonly used to treat ADHD, fatigue and narcolepsy. Amphet is in a class of medications called central nervous system (CNS) stimulants.

Brand names: Adderall

Table 17. METHYLPHENIDATE by Age Group, Statewide, OR, 10/01/11 to 03/31/12

Age (in years)	Prescription Recipient Count in 6 months	Number of prescriptions dispensed in 6 months	Number of prescriptions dispensed per prescription recipient in 6 months	Number of people receiving prescriptions, per 1,000 residents	Number of prescriptions dispensed per 1,000 residents
1 - 14	14,753	59,596	4.0	20.6	83.2
15 - 24	6,550	21,251	3.2	12.9	41.9
25 - 34	2,675	8,504	3.2	5.1	16.1
35 - 44	2,714	9,246	3.4	5.4	18.3
45 - 54	2,811	9,781	3.5	5.3	18.3
55 - 64	2,645	9,456	3.6	5.2	18.4
65 - 74	869	2,855	3.3	2.8	9.4
75 - 84	259	733	2.8	1.5	4.3
85+	109	307	2.8	1.4	3.9
TOTAL	33,385	121,729	3.6	8.7	31.6

Methylphenidate Methylphenidate is used as part of a treatment program to control symptoms of ADHD in adults and children. It is also used to treat narcolepsy. Methylphenidate is in a class of medications called central nervous system (CNS) stimulants. It works by changing the amounts of certain natural substances in the brain.

Brand names: Concerta, Metadate, Methylin, Ritalin

Table 18. ACETAMINOPHEN WITH CODEINE by Age Group, Statewide, OR, 10/01/11 to 03/31/12

Age (in years)	Prescription Recipient Count in 6 months	Number of prescriptions dispensed in 6 months	Number of prescriptions dispensed per prescription recipient in 6 months	Number of people receiving prescriptions, per 1,000 residents	Number of prescriptions dispensed per 1,000 residents
1 - 14	2,212	2,462	1.1	3.1	3.4
15 - 24	3,984	4,779	1.2	7.9	9.4
25 - 34	4,265	5,822	1.4	8.1	11.0
35 - 44	3,842	6,040	1.6	7.6	11.9
45 - 54	4,493	8,441	1.9	8.4	15.8
55 - 64	5,380	11,647	2.2	10.5	22.7
65 - 74	4,095	8,841	2.2	13.4	29.0
75 - 84	2,809	6,006	2.1	16.6	35.5
85+	1,474	3,048	2.1	18.9	39.1
TOTAL	32,554	57,086	1.8	8.4	14.8

Acetaminophen Acetaminophen is used to relieve mild to moderate pain and to reduce fever. It may also be used to relieve the pain of osteoarthritis (arthritis caused by the breakdown of the lining of the joints). It is often combined with opiates to increase their pain relieving properties. Acetaminophen has liver toxicity at higher doses. Acetaminophen is in a class of medications called analgesics (pain relievers) and antipyretics (fever reducers). It works by changing the way the body senses pain and by cooling the body.

Brand Names: Tylenol

Table 19. TESTOSTERONE by Age Group, Statewide, OR, 10/01/11 to 03/31/12

Age (in years)	Prescription Recipient Count in 6 months	Number of prescriptions dispensed in 6 months	Number of prescriptions dispensed per prescription recipient in 6 months	Number of people receiving prescriptions, per 1,000 residents	Number of prescriptions dispensed per 1,000 residents
1 - 14	41	100	2.4	0.1	0.1
15 - 24	304	596	2.0	0.6	1.2
25 - 34	1,062	2,348	2.2	2.0	4.4
35 - 44	2,929	6,984	2.4	5.8	13.8
45 - 54	6,457	15,161	2.3	12.1	28.4
55 - 64	8,357	19,016	2.3	16.3	37.1
65 - 74	3,548	7,587	2.1	11.6	24.9
75 - 84	954	1,918	2.0	5.6	11.3
85+	189	353	1.9	2.4	4.5
TOTAL	23,841	54,063	2.3	6.2	14.0

Testosterone Testosterone, a hormone that is usually produced by the body, contributes to the growth, development, and functioning of the male sexual organs and typical male characteristics. Symptoms of low testosterone include decreased sexual desire and ability, extreme tiredness, low energy, depression, and loss of certain male characteristics such as muscular build and deep voice. Testosterone patches work by providing a steady supply of testosterone through the skin to the body. This drug is included because it is one of the top ten drugs prescribed in some Oregon counties.

Brand names: Androderm, Androgel, Testim, Striant

Table 20. CARISOPRODOL by Age Group, Statewide, OR, 10/01/11 to 03/31/12

Age (in years)	Prescription Recipient Count in 6 months	Number of prescriptions dispensed in 6 months	Number of prescriptions dispensed per prescription recipient in 6 months	Number of people receiving prescriptions, per 1,000 residents	Number of prescriptions dispensed per 1,000 residents
1 - 14	<10	6	<10	<10	0.01
15 - 24	250	443	1.77	0.49	0.87
25 - 34	988	2,132	2.16	1.87	4.04
35 - 44	1,663	4,023	2.42	3.29	7.95
45 - 54	2,890	7,352	2.54	5.41	13.75
55 - 64	2,620	6,348	2.42	5.11	12.38
65 - 74	940	2,055	2.19	3.08	6.74
75 - 84	278	593	2.13	1.64	3.50
85+	45	89	1.98	0.58	1.14
TOTAL	9,679	23,041	2.38	2.51	5.97

Carisoprodol Carisoprodol, a muscle relaxant, is used with rest, physical therapy, and other measures to relax muscles and relieve pain and discomfort caused by strains, sprains, and other muscle injuries. It works by blocking pain sensations between the nerves and the brain and is a central nervous system (CNS) depressant.

Brand names: Soma

Prescription Drug Combinations

Table 21. OPIOID and BENZODIAZEPINE Combination by Age Group, Statewide, OR, 10/01/11 to 03/31/12

Age (in years)	Prescription Recipient Count in 6 months	Number of prescriptions dispensed in 6 months	Number of prescriptions dispensed per prescription recipient in 6 months	Number of people receiving combination, per 1,000 residents	Number of prescriptions dispensed per 1,000 residents
1 - 14	343	649	1.9	0.5	0.9
15 - 24	4,642	13,203	2.8	9.2	26.0
25 - 34	13,336	54,887	4.1	25.2	103.9
35 - 44	17,700	79,554	4.5	35.0	157.2
45 - 54	24,664	123,700	5.0	46.1	231.4
55 - 64	24,216	114,705	4.7	47.2	223.7
65 - 74	13,148	53,528	4.1	43.1	175.5
75 - 84	6,862	24,250	3.5	40.5	143.2
85+	3,855	11,270	2.9	49.5	144.6
TOTALS	108,766	475,746	4.4	28.2	123.3

~Opioids include: Hydrocodone, Oxycodone, and Morphine. Benzodiazepines include: Alprazolam, Clonazepam, Diazepam, and Lorazepam. Excludes Zolpidem that represents a chemically different class of benzodiazepine, and in which the risk of combination with opioids is thought to be somewhat lower.

Table 22. OPIOID and ZOLPIDEM/ZALEPLON Combination by Age Group, Statewide, OR, 10/01/11 to 03/31/12

Age (in years)	Prescription Recipient Count in 6 months	Number of prescriptions dispensed in 6 months	Number of prescriptions dispensed per prescription recipient in 6 months	Number of people receiving combination, per 1,000 residents	Number of prescriptions dispensed per 1,000 residents
1 - 14	12	16	1.3	0.0	0.0
15 - 24	923	2,148	2.3	1.8	4.2
25 - 34	3,633	10,802	3.0	6.9	20.4
35 - 44	6,079	19,609	3.2	12.0	38.8
45 - 54	9,252	31,263	3.4	17.3	58.5
55 - 64	10,378	34,544	3.3	20.2	67.4
65 - 74	6,020	18,747	3.1	19.7	61.5
75 - 84	2,694	8,322	3.1	15.9	49.1
85+	926	2,760	3.0	11.9	35.4
TOTALS	39,917	128,211	3.2	10.3	33.2
<p><i>~Opioids include: Hydrocodone, Oxycodone, and Morphine. Benzodiazepines include: Zolpidem and Zaleplon.</i></p>					

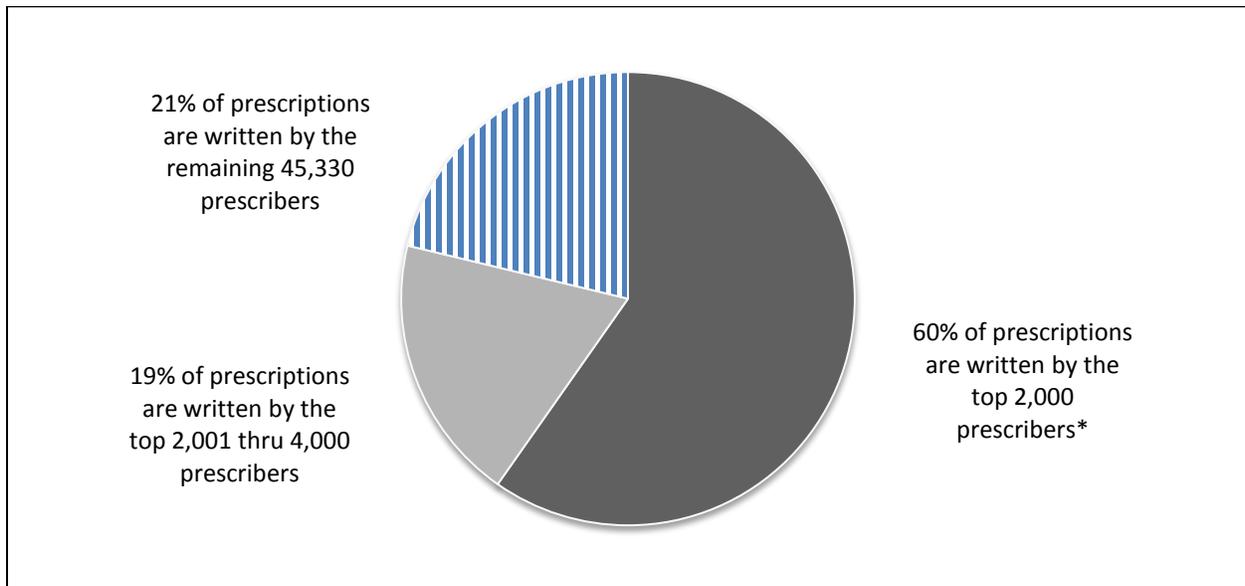
Table 23. Number of people receiving opioid prescriptions per 1,000 residents, by prescription type, county and statewide, OR, 10/01/11 to 03/31/12

	All Opioid Rate	Hydro-codone Rate	Oxy-codone Rate	Morphine Rate	Methadone Rate*	Hydro-morphone Rate	Opioid & Benzo Rate
Statewide	158.6	113.6	55.3	7.6	3.7	3.7	28.2
Baker	121.1	92.5	32.9	8.1	4.1	1.1	20.4
Benton	119.1	88.0	40.2	3.6	1.8	3.7	20.6
Clackamas	155.2	106.5	61.2	8.0	3.0	3.8	27.5
Clatsop	181.2	117.1	79.9	9.7	4.9	3.7	31.1
Columbia	160.3	109.5	63.7	8.6	4.1	3.7	28.3
Coos	174.8	141.7	39.4	9.4	5.5	4.3	32.6
Crook	178.3	139.2	56.4	6.2	4	3.4	30.1
Curry	177.7	146.4	33.8	11.1	6.1	3.3	38.3
Deschutes	153.5	118.2	51.6	6.5	2.4	4.5	31.0
Douglas	196.2	146.2	64.2	8.0	5.4	5.0	39.0
Gilliam	166.5	123.4	54.8	9.0	3.2	4.8	24.5
Grant	149.4	108.2	49.9	7.7	3.9	1.7	22.0
Harney	138.4	97.4	48.3	6.1	3.3	6.5	23.3
Hood River	120.8	91.9	35.4	5.7	5	2.3	18.7
Jackson	176.6	131.4	56.0	10.3	4.7	4.7	38.5
Jefferson	168.4	137.4	47.0	5.0	2.9	3.6	26.6
Josephine	203.0	152.5	62.7	10.1	8.5	4.1	45.9
Klamath	130.2	108.1	29.2	4.7	3.1	1.6	23.5
Lake	58.3	39.7	20.8	2.7	1.1	1.1	9.0
Lane	159.0	114.2	57.1	7.5	4.7	4.2	32.5
Lincoln	189.1	134.2	67.7	11.7	4.7	5.7	41.1
Linn	178.9	130.2	69.2	7.7	4.8	4.7	34.6
Malheur	107.1	97.3	15.5	4.0	3.7	0.7	20.7
Marion	138.0	102.9	47.1	6.1	3.4	3.6	23.5
Morrow	141.2	115.5	38.4	4.4	2.0	2.7	14.8
Multnomah	144.7	100.9	54.7	7.0	2.9	3	24.2
Polk	135.2	98.0	47.9	5.8	3.5	3.9	24.9
Sherman	189.8	153	49.9	7.9	22.7	4.0	31.7
Tillamook	156.8	107.3	54.8	11.2	7.3	4.0	27.4
Umatilla	122.6	97.4	35.8	3.6	1.8	2.5	17.0
Union	127.8	93.8	45.6	6.1	1.8	2.0	21.3
Wallowa	125.4	99.8	32.6	6.3	2.3	1	21.2
Wasco	149.8	111.3	47.4	8.3	8.0	2.4	24.9
Washington	128.4	91.8	48.1	5.7	2.1	3.1	21.2
Wheeler	131.7	99	36.9	8.4	2.8	2.8	23.7
Yamhill	153.7	108.6	55.8	8.7	3.6	3.4	24.7

*Does not include methadone used to treat addiction.

Prescribers Using the System

Figure 1. Percentage of total CS II-IV prescriptions written by prescriber cohort, OR, 1/1/12 to 9/30/12



* Fifty-five percent or 1,099 of the top 2,000 prescribers were authenticated system users as of 10/9/12.

Table 24. Estimated number of healthcare providers registered for a PDMP account by county, OR, as of March 31, 2012, n = 3,436

County	Number of providers with accounts	County	Number of providers with accounts
Baker	14	Lake	8
Benton	104	Lane	216
Clackamas	272	Lincoln	67
Clatsop	50	Linn	51
Columbia	26	Malheur	26
Coos	64	Marion	256
Crook	8	Morrow	4
Curry	21	Multnomah	979
Deschutes	162	Polk	37
Douglas	82	Sherman	0
Gilliam	3	Tillamook	31
Grant	11	Umatilla	30
Harney	14	Union	22
Hood River	38	Wallowa	5
Jackson	199	Wasco	11
Jefferson	23	Washington	410
Josephine	68	Wheeler	0
Klamath	40	Yamhill	84

Patients with High Use Profiles

Table 25. Count of patients filling prescriptions from multiple prescribers at multiple pharmacies, OR, 10/1/11 to 3/31/12

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

**A total of 897,815 patients received at least one prescription during this same timeframe.*

Discussion

Prescription drug overdose, dependence, and addiction are serious public health problems. The PDMP provides health care providers with a tool to identify and address these problems. The PDMP mission is to use data to improve health care by offering health care providers and pharmacists information about prescription controlled substances, reduce prescription overdose, decrease “doctor shopping” – a patient obtaining controlled substances from multiple health care providers without the prescribers’ knowledge of the other prescriptions – and decrease misuse of prescription controlled substances. A balanced approach to this work includes an understanding of the need to preserve access to medicines for the management of pain while decreasing the misuse of prescription controlled substances. The PDMP data group welcomes input and questions.

Recommendations

- Assure that the top 2,000 prescribers have system accounts.
- Produce and disseminate a tool for system users on how to use a PDMP report with a patient.
- Disseminate information about the PDMP system and helpful resources through licensing boards and health care provider associations.

Glossary of Terms

Acetaminophen Acetaminophen is used to relieve mild to moderate pain and to reduce fever. It may also be used to relieve the pain of osteoarthritis (arthritis caused by the breakdown of the lining of the joints). It is often combined with opiates to increase their pain relieving properties. Acetaminophen has liver toxicity at higher doses. Acetaminophen is in a class of medications called analgesics (pain relievers) and antipyretics (fever reducers). It works by changing the way the body senses pain and by cooling the body.

Brand Names: Tylenol

Alprazolam Alprazolam is used to treat anxiety disorders and panic disorder (sudden, unexpected attacks of extreme fear and worry about these attacks). Alprazolam is in a class of medications called benzodiazepines. It works by decreasing abnormal excitement in the brain.

Brand names: Xanax

Amphet Amphet is identified as amphetamine and dextroamphetamine extended release and is commonly used to treat ADHD, fatigue and narcolepsy. Amphet is in a class of medications called central nervous system (CNS) stimulants.

Brand names: Adderall

Carisoprodol Carisoprodol, a muscle relaxant, is used with rest, physical therapy, and other measures to relax muscles and relieve pain and discomfort caused by strains, sprains, and other muscle injuries. It works by blocking pain sensations between the nerves and the brain and is a central nervous system (CNS) depressant.

Brand names: Soma

Clonazepam Clonazepam is used alone or in combination with other medications to control certain types of seizures. It is also used to relieve panic attacks. Clonazepam is in a class of medications called benzodiazepines. It works by decreasing abnormal electrical activity in the brain.

Brand names: Klonopin, Klonopin Wafer

Diazepam Diazepam is used to relieve anxiety, muscle spasms, and seizures and to control agitation caused by alcohol withdrawal. Diazepam is also used to treat irritable bowel syndrome and panic attacks. Diazepam is in a class of medications called benzodiazepines.

Brand names: Valium

Fentanyl Fentanyl is a powerful synthetic opiate analgesic similar to but more potent than morphine. It is typically used to treat patients with severe pain, or to manage pain after surgery. It is also sometimes used to treat people with chronic pain who are physically tolerant to opiates. Fentanyl is in a class of medications called opiate narcotic analgesics. It works by changing the way the brain and nervous system respond to pain.

Brand names: Abstral, Actiq, Duragesic, Fentora, Onsolis, Sublimaze

Hydrocodone Hydrocodone is available only in combination with other ingredients, and different combination products are prescribed for different uses. Some hydrocodone products are used to relieve moderate to severe pain. Other hydrocodone products are used to relieve cough. Hydrocodone is in a class of medications called opiate narcotic analgesics and in a class of medications called antitussives. Hydrocodone relieves pain by changing the way the brain and nervous system respond to pain. Hydrocodone relieves cough by decreasing activity in the part of the brain that causes coughing.

Brand names: Vicodin, Lorcet, Lortab, Norco

Hydromorphone Hydromorphone is used to relieve moderate to severe pain. It also may be used to decrease coughing. Hydromorphone is in a class of medications called opiate narcotic analgesics and in a class of medications called antitussives.

Brand names: Dilaudid, Exalgo, Hydrostat, Palladone

Lorazepam Lorazepam is used to relieve anxiety. It is also used to treat irritable bowel syndrome, epilepsy, insomnia, and nausea and vomiting from cancer treatment and to control agitation caused by alcohol withdrawal. Lorazepam is in a class of medications called benzodiazepines. It works by slowing activity in the brain to allow for relaxation.

Brand names: Ativan

Methadone Methadone is used to relieve moderate to severe pain that has not been relieved by non-narcotic pain relievers. It also is used to prevent withdrawal symptoms in patients who were addicted to opiate drugs and are enrolled in treatment programs in order to stop taking or continue not taking the drugs. Methadone is in a class of medications called opiate narcotic analgesics. Methadone works to treat pain by changing the way the brain and nervous system respond to pain. It also works as a substitute for opiate drugs of abuse by producing similar effects and preventing withdrawal symptoms in people who have stopped using these drugs. Methadone has a very long half-life (stays in the body a long time).

Brand names: Dolophine, Methadose

Methylphenidate Methylphenidate is used as part of a treatment program to control symptoms of ADHD in adults and children. It is also used to treat narcolepsy. Methylphenidate is in a class of medications called central nervous system (CNS) stimulants. It works by changing the amounts of certain natural substances in the brain.

Brand names: Concerta, Metadate, Methylin, Ritalin

Morphine Morphine is used to relieve moderate to severe pain. Morphine long-acting tablets and capsules are only used by patients who are expected to need medication to relieve moderate to severe pain around-the-clock for longer than a few days. Morphine is in a class of medications called opiate narcotic analgesics. It works by changing the way the body senses pain.

Brand names: Avinza, Kadian, MS Contin, Oramorph, Roxanol

Oxycodone Oxycodone is used to relieve moderate to severe pain. Oxycodone is in a class of medications called opiate narcotic analgesics. It works by changing the way the brain and nervous system respond to pain.

Brand names: Dazidox, Endocet, ETH-Oxydose, Endocodone, Oxecta, Oxy IR, Oxycontin, Oxyfast, Percocet, Percolone, Roxicodone

Temazepam Temazepam is used on a short-term basis to treat insomnia. Temazepam is in a class of medications called benzodiazepines. It works by slowing activity in the brain to allow sleep.

Brand names: Restoril

Testosterone Testosterone, a hormone that is usually produced by the body, contributes to the growth, development, and functioning of the male sexual organs and typical male characteristics. Symptoms of low testosterone include decreased sexual desire and ability, extreme tiredness, low energy, depression, and loss of certain male characteristics such as muscular build and deep voice. Testosterone patches work by providing a steady supply of testosterone through the skin to the body. This drug is included because it is one of the top ten drugs prescribed in some Oregon counties.

Brand names: Androderm, Androgel, Testim, Striant

Zolpidem Zolpidem is used to treat insomnia. Zolpidem belongs to a class of medications called sedative-hypnotics. It works by slowing activity in the brain to allow sleep.

Brand names: Ambien, Zolpimist