

State of Alaska
Controlled Substances Advisory Committee

White Paper

**Increasing the Effectiveness of
Alaska's Prescription Drug Monitoring Program
(Alaska's PDMP)**

January 29, 2016

1. Deaths from opiates and heroin are increasing in the U.S.

- Since 1990, the annual death rate from drug overdose has more than tripled.¹
- Since 2000, the age-adjusted death rate from drug overdose has more than doubled.²
- From 2000 to 2014, almost 500,000 people have died from drug overdoses.²
- Opiates, primarily prescription pain relievers and heroin, are the main drugs associated with overdose deaths.²
- In 2006, the total cost of nonmedical use of prescription opiates was \$53.4 billion.³
- Between 2007 and 2013, the prevalence of heroin addiction almost doubled.⁴
- In 2010, drug related poisoning was the leading cause of unintentional death.³
- Since 2010, heroin death rates have more than tripled.²
- Between 2011 and 2013, 45% of people who used heroin were addicted to prescription opiates.⁴
- From 2013 to 2014, heroin overdose death rates increased 26%.²
- In 2014, 61% of drug overdose deaths involved some type of opiate, including heroin.²
- In 2014, more persons died from drug overdoses than during any previous year on record.²
- In 2014, there were approximately one and a half times more deaths from drug overdoses than deaths from motor vehicle accidents.²
- Forty-four (44) people die every day from prescription opiate overdoses.⁵

2. Deaths from opiates and heroin are increasing in Alaska

- In 2008, Alaska ranked 5th for highest rate of drug overdose death (18.1 per 100,000).¹
- Between 2002 and 2013, the Substance Abuse and Mental Health Services Administration (SAMHSA) estimated that the annual average number of people using heroin increased four-fold (4x) and the annual average number of people with heroin addiction doubled (2x).⁶
- Between 2008 and 2013, the incidence of heroin-associated deaths more than tripled.⁶
- Between 2008 and 2013, there were more deaths by prescription opiate overdose and heroin overdose than by motor vehicle accident.⁷

3. Other public health evidence of opiate and heroin use increasing in Alaska

- Between 2004 to 2013, Alaska Medicaid payment requests for heroin poisoning increased almost ten-fold (10x).⁶
- From 2009 to 2013, substance treatment admissions for Alaskans 21-29 years of age with primary heroin use disorders increased 74% and heroin arrests increased 140%.^{6,8}
- Between 2010 and 2012, inpatient hospital discharge rates for heroin poisoning increased almost six-fold (6x).⁶

4. Outbreak of HIV and Hepatitis C in Indiana

Sharing syringes and injection paraphernalia increase the risk of being exposed to HIV and viral hepatitis.⁹ Austin, Indiana (population 4,300) experienced an outbreak of HIV and Hepatitis C in 2015.⁷ The majority of new cases (more than 170) were due to syringe sharing among individual who had injected the prescription oral opiate oxymorphone.¹⁰ The lifelong medical care costs for treating the new cases of HIV and Hepatitis C will be more than \$80 million (more than \$470,000/new case).¹⁰

5. What is the link between heroin and prescription opiates?¹¹

- Ninety-six percent (96%) of people who use heroin use at least one other drug in the past year with sixty-one percent (61%) using at least three other drugs.
- Misusing a prescription opiate is the strongest risk factor for a heroin use disorder.
- People who abuse or are dependent on prescription opiates are forty times (40x) more likely to use heroin than people who do not misuse prescription opiates.
- People who abuse or are dependent on:
 - alcohol are two times (2x) more likely to use heroin.
 - marijuana are three times (3x) more likely to use heroin.
 - cocaine are fifteen times (15x) more likely to use heroin.

6. How do people who misuse prescription opiates obtain prescription opiates?¹

- Less than five percent (5%) obtain them from a stranger or “drug dealer.”
- More than seventeen percent (17%) obtain them from one health care provider.
- More than seventy percent (70%) obtain them from a friend or relative.

7. Who is at highest risk for prescription opiate overdose?¹

People at highest risk for prescription opiate overdose include:

- People who obtain multiple controlled substance prescriptions from multiple providers.
- People who take high daily doses of prescription opiates.
- People who misuse multiple abuse-prone prescription medications.
- People with substance use disorders or a history of substance use disorders.
- People with mental illness.
- People on Medicaid.

8. What can be done to reduce hospitalizations and deaths from prescription opiate and heroin overdose?

Several public health measures reduce the risk of opiate prescription misuse, heroin use, and overdose death:

- Increase medical professional training regarding pain management and the risks associated with opiate medications.
- Increase screening for and access to treatment for opiate and heroin addiction, including medication-assisted treatment (MAT).
- Improve recognition and management of acute opiate and heroin overdoses: the physical effects of these overdoses can be reversed with the drug naloxone (Narcan). Increasing the availability of naloxone can reduce the risk of death after overdose.

- Maximize PDMP database utilization to identify:
 - Prescription opiate misuse such as high dose opiate prescribing without medical justification.
 - Prescription opiate misuse such as long-term opiate therapy that may be inappropriate or outside commonly recognized standards of care.
 - Prescription opiate abuse.
 - Prescription opiate diversion.
 - Prescriptions for other controlled substances (medications) that may be inappropriate or outside commonly recognized standards of care.

9. What is a prescription drug-monitoring program (PDMP)?

- A PDMP is a state public health effort to facilitate appropriate prescribing and dispensing of controlled substances. A PDMP includes a centralized electronic database of prescribed and dispensed controlled substances (medications).
- PDMPs improve clinical decision-making, reduce “doctor shopping,” reduce controlled substance (medication) misuse, and help identify controlled substance (medication) diversion.³
- Several states established PDMPs beginning in the 1990s. Currently, forty-nine (49) states have operational PDMPs.³
- In an impact survey of the Indiana PDMP, ninety percent (90%) of medical professionals who responded, prescribed fewer controlled substances (medications) and fifty percent (50%) reported the PDMP was the primary reason for the decrease.³
- In an impact survey of the Maine PDMP, ninety-seven percent (97%) of prescribers and dispensers who responded, rated the PDMP useful in monitoring medication prescriptions and identifying and reducing doctor shopping.³
- Kentucky, Florida, Oklahoma, and Washington all reported decreased opiate overdose death rates, at least partially attributable to requiring prescriber PDMP registration and utilization.³

10. Does Alaska have a PDMP?

Yes, the Alaska Prescription Drug Monitoring Program (Alaska PDMP) was established in 2008 (AS 17.30.200). The Board of Pharmacy manages the Alaska PDMP. Alaska’s PDMP goals are to identify:

1. Prescribing and dispensing practices and patterns regarding controlled substances (Alaska Schedule IA-VA and Federal Schedule I-V medications).*

* Pursuant to AS 17.30.200, Alaska’s PDMP gathers prescription information for every prescription for a “schedule I, II, III, IV, or V controlled substance under federal law.” The committee recognizes that federal schedule I controlled substances are defined as drugs with “no currently accepted medical use in treatment” and have “a high potential for abuse.” Accordingly, such drugs are not monitored within the PDMP. However, in an effort to ensure consistency with the enabling statute, the committee has mirrored the language of AS 17.30.200 with regard to the monitored controlled substances.

2. Practitioners who prescribe controlled substances in an unprofessional or unlawful manner.
3. Individuals who receive prescriptions from licensed practitioners and who obtain controlled substances from a dispenser or pharmacy in quantities or frequencies inconsistent with generally recognized standards.
4. Individuals who present forged, false, or altered prescriptions for controlled substances.

Alaska's PDMP has a centralized electronic database containing the following information:

1. Name and federal Drug Enforcement Administration (DEA) registration number of the prescriber (MD, DO, ANP, RNA, PA, DDS, DVM, and DPM).
2. Date the prescription was ordered.
3. Date the prescription was filled and dispensed.
4. Name, address, and date of birth of the person for whom the prescription was ordered.
5. Name, strength, and quantity of the controlled substance dispensed.
6. Dispensing practitioner (most commonly RPh) and the location where dispensed.
7. The patient's method of payment.

All pharmacies and dispensing practitioners are required to report the controlled substance dispensing information to the PDMP by no later than the fifth day of each month. The Board of Pharmacy or licensing board may take disciplinary action against a dispenser failing to submit information to the PDMP database as required.

Federal funding from the Substance Abuse and Mental Health Services Administration (SAMHSA) began supporting the Alaska PDMP in 2015. Federal funding may increase if PDMP utilization increases.

11. Who uses Alaska PDMP data?

- Only licensed prescribers (most commonly MD, DO, ANP, PA, DDS) and licensed dispensers (most commonly Pharmacists) who have registered with the Alaska PDMP may access the Alaska PDMP database. Both registering and reviewing controlled substance prescription information within the Alaska PDMP is voluntary.
- Approximately 13.5% of prescribers are registered with the PDMP. These prescribers review the database regarding specific patients in their care.
- Approximately 40% of dispensers (pharmacists) are registered with PDMP. These dispensers (pharmacists) review the PDMP database regarding patient specific prescriptions for controlled substance (medication) before dispensing.
- Information in the database is confidential and not subject to public disclosure. Unauthorized access and disclosure of PDMP database information is unlawful.
- Federal, state, and local law enforcement authorities must obtain a search warrant, subpoena, or court order prior to obtaining Alaska PDMP data.
- The Alaska Legislature receives non-clinical Alaska PDMP performance measures annually.

Dispensers and practitioners may not be held civilly liable for damages for accessing or not accessing information in the PDMP database.

A person with authority to access the PDMP database who knowingly accesses information in the database beyond the scope of that person's authority commits a class A misdemeanor. A person with authority to access the PDMP database who knowingly accesses information in the database and recklessly discloses the information to a person not entitled to access or to receive the information commits a class C felony. A person who knowingly allows another person who is not authorized to access the PDMP database to access the database commits a class C felony. A person without authority to access the PDMP database who knowingly accesses the database or knowingly receives database information from another person commits a class C felony.

12. What is the Controlled Substances Advisory Committee (CSAC)?

The CSAC was established in 1982 (AS 11.71.100-11.71.120). CSAC goals are to:

1. Advise the governor about adding, deleting, and rescheduling controlled substances.
2. Recommend regulations to the Board of Pharmacy regarding the prevention of excessive prescribing and the diversion of controlled substances.
3. Evaluate the effectiveness of treatment resources for persons with controlled substance use disorders.
4. Evaluate the enforcement policies and practices regarding crimes involving controlled substances.
5. Review budget requests and recommend appropriations regarding:
 - a. Enforcing criminal laws pertaining to controlled substances.
 - b. Providing treatment and counseling of persons who abuse controlled substances.
 - c. Regulating the legitimate handling of controlled substances.

13. How could Alaska's PDMP be more effective?

Alaska's PDMP was created to improve patient care and reduce misuse, abuse, and diversion of controlled substances. Alaska PDMP effectiveness is limited by:

1. Registering with the Alaska PDMP is voluntary. Only 13.5% of prescribers and 40% of dispensers have registered with the PDMP.
2. Prescribers and dispensers are not permitted to delegate PDMP access to an employee.
3. The Alaska PDMP is not permitted to notify prescribers or dispensers regarding specific patients who may be at high risk of controlled substance prescription misuse, addiction, or diversion (i.e., unsolicited notification).
4. The Alaska PDMP database is not updated in real time. Database updates may be delayed for up to one month.
5. The director of the State of Alaska Medicaid Pharmacy Program is not permitted access the PDMP database.
6. The State of Alaska Medicaid Drug Utilization Review Committee is not permitted access to the PDMP database.
7. The State of Alaska Medical Examiner is not permitted access to the PDMP database.

8. No State of Alaska public health agency is permitted access to the PDMP database.

The CSAC believes increasing PDMP utilization will increase PDMP effectiveness.

Greater PDMP utilization has reduced prescription opiate misuse, addiction, overdose, and death in states with higher PDMP utilization.

Research shows that there is a direct correlation between heroin use and prescription opiate addiction. The CSAC believes increasing PDMP utilization will reduce prescription opiate addiction and will reduce the number of people switching from prescription opiate use to heroin use.

14. The CSAC recommends the following modifications to Alaska’s PDMP:

1. Require all prescribers and all pharmacists to register with the Alaska PDMP.
2. Require prescribers and pharmacists to review the PDMP database when prescribing or dispensing a controlled substance to a patient.
3. Authorize prescribers and pharmacists to delegate database access to supervised employees or clinical staff.
4. Authorize the Board of Pharmacy to forward unsolicited notifications to prescribers and dispensers database information about patients who may be obtaining controlled substances inconsistent with generally recognized standards of care.
5. Collect dispensing data and updating the PDMP database weekly.
6. Authorize PDMP database access to the State of Alaska Medicaid Pharmacy Program.
7. Authorize PDMP database access to the State of Alaska Medicaid Drug Utilization Review Committee.
8. Authorize PDMP database access to the State of Alaska Medical Examiner.
9. Authorize de-identified PDMP data access to the State of Alaska Department of Health and Social Services (Alaska DHSS) Division of Public Health.

The American Medical Association Task Force to Reduce Opioid Abuse urges states and providers to utilize prescription drug monitoring programs to reduce prescription drug misuse, overdose, and death.¹²

A partial list of Task Force members includes:

- American Academy of Family Physicians
- American Academy of Hospice and Palliative Medicine
- American Academy of Orthopaedic Surgeons
- American Academy of Pain Medicine
- American Academy of Pediatrics
- American College of Emergency Physicians
- American Dental Association
- American Medical Association
- American Osteopathic Association
- American Psychiatric Association
- American Society of Addiction Medicine

- American Society of Anesthesiologists

Each modification requires a statutory change to AS 17.30.200.

15. Require all prescribers and all dispensers register with the Alaska PDMP

The Alaska PDMP cannot meet its mandate or reach its full potential if underutilized.

Forty-nine (49) states have operational PDMPs.³ When prescriber and dispenser registration is voluntary, less than fifty percent (50%) of possible prescribers and dispensers register.¹³

As of June 2014, all prescribers are required to register for their state PDMP in twenty (20) states.¹³

Registering for Alaska's PDMP is voluntary. 13.5% of Alaska prescribers and 40% of Alaska dispensers have registered with the PDMP. Requiring PDMP registration will increase registration to one hundred percent (100%).

Registering for Alaska's PDMP may be done on line. Linking PDMP registration with state professional licensing application or renewal would facilitate PDMP registration.

Some prescribers may oppose mandatory PDMP registration believing it an intrusion into clinical practice, workflow, and threaten patient privacy and confidentiality. Evidence supports the benefits of a state PDMP with high utilization. Reaching out to the medical community and other stakeholders will increase awareness and support for PDMP utilization.

16. Require prescribers and dispensers review the PDMP database¹³

Twenty-two (22) states require PDMP database review by prescribers and sometimes dispensers.¹³

Nevada requires prescribers review the PDMP database when "the practitioner has a reasonable belief that the patient may be seeking the controlled substance, in whole or in part, for any reason other than the treatment of an existing medical condition."

Oklahoma requires prescribers and dispensers review the PDMP database when prescribing, administering, or dispensing methadone.

Kentucky requires prescribers review the PDMP database before prescribing any Federal Schedule II drug and any Federal Schedule III drug containing hydrocodone and then every three months before prescribing refills. Between 2012 and 2013 prescriptions for controlled substances (medications) decreased more than eight percent (8.5%).

Tennessee requires prescribers review the PDMP database when first prescribing opiates and benzodiazepines for more than seven days and at least annually thereafter if prescribing

continues. Between 2012 and 2013 there was a thirty-six percent (36%) decrease in patients going to multiple prescribers and seeking the same prescription medications.

Some prescribers may oppose requiring PDMP database review believing that it as an intrusion into clinical practice and workflow. Permitting prescribers to delegate PDMP access to supervised employees may reduce concerns about the impact on clinical practice and workflow.

The CSAC believes communicating and coordinating with the medical community and other stakeholders before implementing any change is recommended. PDMP education, negotiation, and consensus building will improve Alaska PDMP awareness, utilization, and effectiveness.

The CSAC believes this will reduce controlled substance misuse, addiction, and diversion. The CSAC believes this will reduce opiate overdose deaths and the incidence of patients switching from prescription opiate use to heroin use.

17. Authorize PDMP database access to supervised employees (delegates)

Prescribers and dispensers may be concerned that reviewing the PDMP database will negatively impact clinical practice and workflow. Accessing and reviewing PDMP data may be perceived as time consuming.

Thirty-six (36) states authorize prescribers and dispensers to delegate PDMP database access to employees.¹⁴ Employees (delegated users) input patient names to download PDMP data for prescribers and dispensers. Prescribers and dispensers are responsible for their employees' (the delegated users) use of PDMP information.

"Delegate accounts, properly supervised and maintained..., are a secure and effective means to increase PDMP utilization."¹⁴

At some point in the future, the PDMP database will likely be automatically incorporated into electronic health records.

18. Authorize the PDMP to forward unsolicited reports to prescribers and dispensers

A solicited report is a report initiated by a query from a prescriber or dispenser registered with the PDMP. The registered prescriber or dispenser is seeking PDMP database information about a specific patient. Solicited reports are most commonly on-line queries. The specific patient's PDMP information is most commonly provided instantaneously on-line.

An unsolicited report is a report initiated by the PDMP in response to specific patient prescription and dispensing patterns, specific prescriber patterns, and specific dispenser patterns. Possible end users of unsolicited reports include prescribers, dispensers, licensing boards, law enforcement, and public health agencies.

Thirty-eight (38) states authorize PDMPs to forward unsolicited notifications to one or more end users.¹⁵

Beginning in 2005, the Maine PDMP began sending prescribers written quarterly reports via the U.S. Postal Service.¹⁵ The Maine PDMP reports are sent to prescribers who are prescribing for specific patients when the patient:

- Receives multiple prescriptions from multiple prescribers and uses multiple dispensing pharmacies.
- Is prescribed an unusually high average daily dose of an opiate.
- Is prescribed buprenorphine concurrent with another opiate.

The Maine PDMP report lists all providers, all pharmacies, and the details of all prescriptions during the prior three-month period.

In a 2009 survey¹⁵ of Maine prescribers, a “substantial proportion” of those who had received a PDMP report took action because of the notification. The action taken was one or more of the following:

- Checking the PDMP database regarding that patient’s prescription history.
- Calling other prescribers who had prescribed for the patient.
- Talking to the patient.
- Conducting a substance abuse screen and providing a brief intervention.

Between 2011 and 2012, the number of suspected “doctor shoppers” in Maine declined thirty-two percent (32%).¹⁵

19. Real Time Data Collection

The Alaska PDMP currently requires all dispensers (primarily pharmacies) to monthly report controlled substances dispensed. This means that the Alaska PDMP database may be up to four weeks out of date.

Most state PDMPs receive dispenser (primarily pharmacy) updates every 1-2 weeks.¹⁶ Real time data collection and database updating may need to wait until health information technology facilitates this process. The CSAC recommends updating the PDMP database weekly.

20. Permit database access by the State of Alaska Medicaid Program

The State of Alaska Medicaid program currently has a Pharmacist Director and one supporting staff Pharmacist. The Medicaid Pharmacist Director:

1. Coordinates the Pharmacy & Therapeutics Committee.
2. Assists in coordinating the Drug Utilization Review Committee.
3. Supervises the prior authorization process.

Granting access to the PDMP for the State of Alaska Medicaid Pharmacy program would:

- Improve awareness of prescribing patterns and dispensing by prescribers and dispensers for patients in Alaska Medicaid.

- Increase awareness of those paying cash (not using their Medicaid benefits) for acquiring controlled substances.

National data indicate that people on Medicaid are prescribed opiates at twice the rate of non-Medicaid patients and are at six times the risk of prescription opiate overdose.¹

21. Permit database access by the State of Alaska Medicaid Drug Utilization Review Committee

The Alaska Medicaid Drug Utilization Review Committee (Medicaid DUR) was created in 1990. The Medicaid DUR Committee conducts prospective and retrospective analyses to address safety, fraud, waste, abuse, misuse, and medically unnecessary care. The Medicaid DUR Committee is limited to prescribing and dispensing activities paid by Alaska Medicaid.

PDMP database access by the Medicaid DUR Committee would improve the ability to identify:

- Medicaid beneficiaries paying cash for controlled substances (medications).
- Medicaid beneficiaries obtaining possibly unnecessary medical care paid by Medicaid to obtain possibly unnecessary prescriptions for controlled substances paid by cash.

22. Permit database access by the State of Alaska Medical Examiner

The Alaska Medical Examiner investigates unexplained and/or unexpected deaths, and currently, the Medical Examiner (and/or staff) must obtain a search warrant, subpoena, or court order prior to receiving Alaska PDMP data.

Alaska's death rate from opiates and heroin is increasing. Between 2008 and 2013, there were more deaths in Alaska by prescription opioid and heroin overdoses than by motor vehicle accident.⁷ Permitting access to the PDMP database is consistent with the Alaska Medical Examiner's role in investigating unexplained and/or unexpected deaths.

23. Permit database access by the State of Alaska Department of Health and Social Services Division of Public Health

The Alaska Department of Health and Social Services (DHSS) Division of Public Health does not have access to the Alaska PDMP database.

State PDMPs differ on their use of PDMP data to meet public health objectives. Common public health objectives regarding controlled substances (prescription medications) include:

- Epidemiological surveillance to measure and track the incidence and prevalence of nonmedical use of prescription medications.
- Education about prescribing trends and raising awareness regarding the misuse of prescription medications.
- Early recognition and intervention of the possible misuse of prescription medications.
- Prevention of circumstances that increase the risk of prescription medication misuse, addiction, and overdose.
- Coordinate with federal and multistate efforts to prevent and reduce prescription medication misuse, addiction, and overdose.

The Division of Public Health could use de-identified data to meet public health objectives regarding controlled substances including prescription opiates. De-identified data could be similar to Medicaid DUR Committee data in that it is not identifiable data (de-identified regarding patient identity, prescriber identity, dispenser identity, and dispenser location).

24. Summary and Suggestions

PDMPs are increasingly utilized by states to improve clinical care and outcomes and to reduce controlled substances misuse, addiction, and overdose fatalities. Alaska has had a PDMP since 2008. But, only 13.5% of prescribers and only 40% of dispensers have registered with the Alaska PDMP. The Alaska PDMP permits access and review of the PDMP database only to providers who are registered with the Alaska PDMP. Providers who have registered with the Alaska PDMP must then query the system about specific patients.

The Alaska PDMP will be more useful and effective if database utilization is higher by:

- ✓ Requiring prescribers and dispensers to register for the PDMP.
- ✓ Requiring prescribers and dispensers to access and review the PDMP database.
- ✓ Permitting prescribers and dispensers to delegate PDMP database access by employees.
- ✓ Permitting the PDMP to alert providers of patients who may be at risk of misusing controlled substances (prescription medications).
- ✓ Updating the PDMP database weekly.
- ✓ Permitting PDMP database access by the Alaska Medicaid Pharmacists.
- ✓ Permitting PDMP database access by the Alaska Medicaid Drug Utilization Review Committee.
- ✓ Permitting PDMP database access by the Alaska Medical Examiner.
- ✓ Permitting access to de-identified PDMP data by the Alaska Department of Health and Social Services Division of Public Health.

The CSAC does not have recommendations regarding negative consequences for prescribers, dispensers, or pharmacies not adhering to the recommended PDMP changes should they be enacted.

Finally, Alaska's PDMP does not replace the necessity of evaluating and treating substance use disorders and does not replace controlled substances law enforcement.

Cited References

1. Centers for Disease Control and Prevention. (2011). Policy Impact Prescription Painkiller Overdoses. Retrieved Sept 1, 2015, from <http://www.cdc.gov/drugoverdose/pdf/policyimpact-prescriptionpainkillero-d-a.pdf>.
2. Center for Disease Control and Prevention. Morbidity and Mortality Weekly Report (December 18, 2015). Increases in Drug and Opioid Overdose Deaths – United States, 2000-2014. 2015;64:1-5. See <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm64e1218a1.html>.

3. Prescription Drug Monitoring Program Center of Excellence. (2014). Briefing on PDMP Effectiveness. Heller School for Social Policy and Management, Brandeis University. Waltham, MA. Retrieved on Sept 1, 2015 from <http://www.pdmpexcellence.org/sites/all/pdfs/Briefing%20on%20PDMP%20Effectiveness%203rd%20revision.pdf>.
4. Centers for Disease Control and Prevention. (July 2015). Vitalsigns. Today's Heroin Epidemic. www.cdc.gov/vitalsigns/heroin.
5. Centers for Disease Control and Prevention. (2015). What the Public Needs to Know about the Epidemic. Retrieved Sept 6, 2015, from <http://www.cdc.gov/drugoverdose/epidemic/public.html>.
6. State of Alaska Department of Health and social Services. Epidemiology Bulletin. Health Impacts of Heroin Use in Alaska. (July 13, 2015).
7. Butler, Jay (2015) Health Effects of Heroin Use in Alaska. Controlled Substances Advisory Committee Presentation (August 4, 2015).
8. Heroin Use Is On the Rise In the Last Frontier. Distributed at the Controlled Substances Advisory Committee (August 4, 2015).
9. National Institute on Drug Abuse. Why does heroin use create special risk for contracting HIV/AIDS and hepatitis B and C? Retrieved Dec 10 2015 from <http://www.drugabuse.gov/publications/research-reports/heroin/why-are-heroin-users-special-risk-contracting-hiv-aids-hepatitis-b-c>.
10. The HIV/HCV Outbreak in Indiana: Could It Happen in Your State? Medscape. August 24, 2015. Retrieved Dec 10 2015 from <http://www.medscape.com/viewarticle/849406>.
11. Center For Disease Control. New Research Reveals the Trends and Risk Factors Behind America's Growing Heroin Epidemic. (July 7, 2015).
12. American Medical Association. Opioid abuse is a public health crisis. Is your state's prescription drug monitoring program up to par? The AMA Task Force to Reduce Opioid Abuse. Retrieved Sept 1, 2015 from <https://download.ama-assn.org/resources/doc/washington/15-0398-opioid-one-lawmaker.pdf>.
13. Prescription Drug Monitoring Program Center of Excellence. (2014). Mandating PDMP participation by medical providers: current status and experience in selected states. Heller School for Social Policy and Management, Brandeis University. Waltham, MA. Retrieved on Sept 3, 2015 from http://www.pdmpexcellence.org/sites/all/pdfs/COE_briefing_mandates_2nd_rev.pdf.

14. Prescription Drug Monitoring Program Center of Excellence. (2015). PDMP Delegate Account Systems. Heller School for Social Policy and Management, Brandeis University. Waltham, MA. Retrieved Sept 1, 2015 from <http://www.pdmpexcellence.org/sites/all/pdfs/COE%20Briefing%20on%20Delegate%20Account%20Systems.pdf>.

15. Prescription Drug Monitoring Program Center of Excellence. (2014). Guidance on PDMP Best Practices - Options for Unsolicited Reporting. Heller School for Social Policy and Management, Brandeis University. Waltham, MA. Retrieved on Sept 4, 2015 from http://www.pdmpexcellence.org/sites/all/pdfs/Brandeis_COE_Guidance_on_Unsolicited_Reporting_final.pdf.

16. Prescription Drug Monitoring Program Center of Excellence. (2012). Prescription Drug Monitoring Programs: An Assessment of the Evidence for Best Practices. Heller School for Social Policy and Management, Brandeis University. Waltham, MA. Retrieved on Sept 1 2015 from http://pdmpexcellence.org/sites/all/pdfs/Brandeis_PDMP_Report.pdf.

Additional References

American Medical Association. Thinking of prescribing an opioid? Did you check your state prescription drug monitoring program? The AMA Task Force to Reduce Opioid Abuse. Retrieved Sept 1, 2015 from <https://download.ama-assn.org/resources/doc/washington/15-0398-opioid-one-physician.pdf?cb=1441580311&retrieve=yes>.

Association of State and Territorial Health Officials. Prescription Drug Monitoring Programs: Tools for Education, Epidemiological Surveillance, Prevention, and Early Intervention. Retrieved Sept 1, 2015 from <http://www.astho.org/Rx/Brandeis-PDMP-Report/>.

Centers for Disease Control and Prevention. (2015). Outbreak of Recent HIV and HCV Infections among Persons Who Inject Drugs. Retrieved Dec 10, 2015 from <http://emergency.cdc.gov/han/han00377.asp>.

Centers for Disease Control and Prevention. (2015). Prescription Drug Monitoring Programs (PDMPs). Retrieved Sept 1, 2015 from <http://www.cdc.gov/drugoverdose/pdmp/index.html>.

Centers for Disease Control and Prevention. (2015). State Successes. Retrieved Sept 6, 2015, from <http://www.cdc.gov/drugoverdose/policy/successes.html>.

Centers for Disease Control and Prevention. (2015). What States Need to Know about PDMPs. Retrieved Sept 1, 2015, from <http://www.cdc.gov/drugoverdose/pdmp/states.html>.

Centers for Disease Control and Prevention. (2015). What States Need to Know about the Epidemic. Retrieved Sept 1, 2015, from <http://www.cdc.gov/drugoverdose/epidemic/states.html>

Haffajee, R., Jena, A., & Weiner, S. (2015). Mandatory Use of Prescription Drug Monitoring Programs. *Journal of the American Medical Association*, 313(9), 891-892.

National Institute of Drug Abuse. (2014). How is heroin is linked to prescription drug use? Retrieved Dec 10, 2015 from <http://www.drugabuse.gov/publications/research-reports/heroin/how-heroin-linked-to-prescription-drug-abuse>.

Prescription Drug Monitoring Program Center of Excellence. (2014). Prescription Drug Monitoring Program Performance Measures Report: January 2009 through June 2012. Heller School for Social Policy and Management, Brandeis University. Waltham, MA. Retrieved on Sept 1, 2015 from http://www.pdmpexcellence.org/sites/all/pdfs/BJA%20PDMP%20Performance%20Measures%20Report%20Jan%202009%20to%20June%202012%20Final_with%20feedback.pdf.

Prescription Drug Monitoring Program Center of Excellence. (2015). Use of PDMP Data by Opioid Addiction Treatment Programs. Heller School for Social Policy and Management, Brandeis University. Waltham, MA. Retrieved Sept 1, 2015 from <http://www.pdmpexcellence.org/sites/all/pdfs/Use%20of%20PDMP%20data%20by%20opioid%20treatment%20programs.pdf>.