POISONING AND DRUG OVERDOSE

DESCRIPTION:
The damaging physiologic effects of ingestion, inhalation, or other exposure to a broad range of chemicals, including pesticides, heavy metals, gases/vapors, drugs, and a variety of common household substances, such as bleach and ammonia. Included are accidental overdoses of drugs, a wrong drug given or taken in error, and a drug taken inadvertently.

This section is a priority area for the Washington State Department of Health.

Washington State Goal Statement

To decrease deaths and hospitalizations due to unintentional poisoning

National Healthy People 2010 Objectives

- Reduce poisoning death rate from 6.8 in 1998 to no more than 1.5 per 100,000

Statement of the Problem in Washington State

Washington State Data

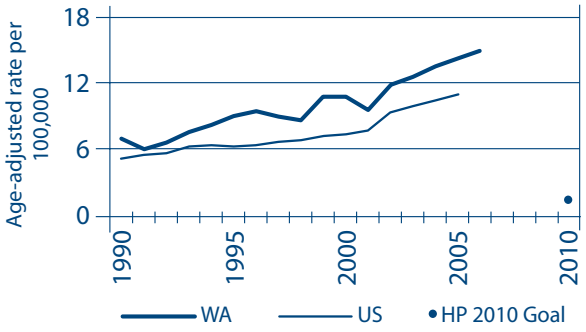
In 2005, Washington State's poisoning death rate at 14 per 100,000 was higher than the national death rate of 11 per 100,000.

Based on 2006 data in Washington State, poisoning is the first leading cause of unintentional injury-related death. It is the third leading cause of unintentional hospitalization. Over 90% of poisoning deaths in Washington State are due to drug overdoses and about 2% are due to alcohol poisoning.

From 1990-2006, unintentional poisoning death rates have increased by 395% from 2.3 to 11.3 per 100,000. Suicide, homicide, and undetermined poisoning rates have remained relatively stable. Because of these trends, the remainder of this chapter will focus on unintentional poisoning.

Opiate use and misuse appear to be driving the increase in poisoning deaths. Alcohol and other drug abuse are also important public health issues with enormous impacts on many types of injury and violence.

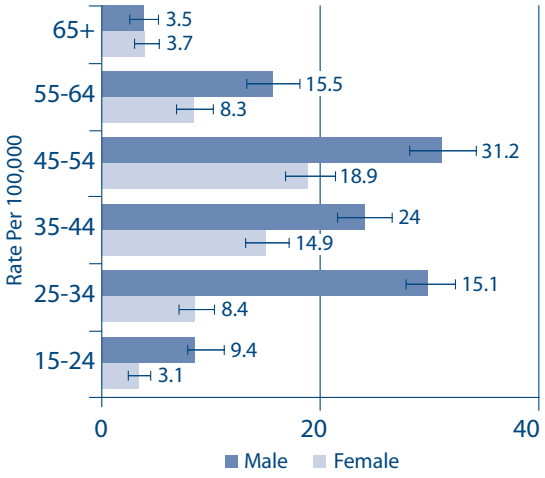
Poisoning Deaths
Washington State & United States Death Certificates, 1990-2006



Age and Gender

From 2004-2006, males had higher unintentional poisoning death rates. The highest death rates among males were for ages 45-54. However, for poisoning deaths related to prescription opiates, males and females had similar rates.

Unitentional Poisoning Deaths
Age and Gender
Death Certificates, 2004-2006



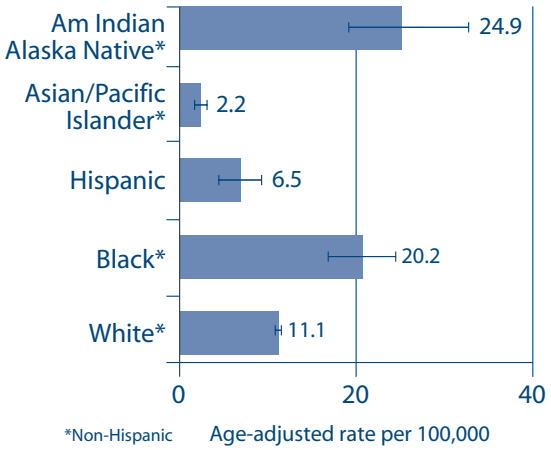
Deaths among licit and illicit drug users in Washington State have a similar age and gender pattern. In the only study available, the average age of chronic pain patients who received opiate medications was 52.[1] Children younger than 15 had fewer than 20 deaths. The chart does not include these groups.

Race and Ethnicity

For 2004-2006 combined, American Indians and Alaska Natives had the highest age-adjusted unintentional poisoning death rate. African Americans had the next highest. Death rates for whites were in the middle, followed by people of Hispanic origin. Asian and Pacific Islanders had the lowest rates.

In addition, unintentional poisoning death rates are higher in low-income neighborhoods and among those with lower education.[2] Research has not investigated the relative importance of race, Hispanic origin, poverty, and education on poisoning death rates.

Unitentional Poisoning Deaths
Race and Ethnicity
Washington State Death Certificates, 2004-2006



Drugs in Unintentional Poisoning Deaths

In 2006 in Washington State, the table below shows that for those who died of an unintentional poisoning, methadone was the most commonly listed drug on the death certificates, followed by cocaine and alcohol.

Unitentional Poisoning Deaths
Washingon State Death Certificate Data, 2006
Total Number of Death = 745

Drug Identified on Death Certificate	Number of death certificates with drug listed*
Methadone	308
Cocaine	186
Alcohol	174
Oxycodone	102
Hydrocodone	71
Methamphetamine	69
Morphine	54
Diazepam	53
Opiate, unspecified	51
Heroin†	47

*Because the average number of drugs listed on the death certificate was 2.6 per person, the number of times drugs are identified does not add up to the total number of deaths.

† Heroin-related deaths may be underestimated because many are listed as morphine, opiate, or unspecified.

Prescription or Illicit Drugs

On the death certificates for unintentional opiate-related poisoning deaths in 2005 and 2006:

- Almost two-thirds (64%) listed only a prescription drug(s).
- About 20% listed both prescription and illicit drugs.
- Only 11% listed only an illicit drug(s).

In a minority of cases, no one could determine if the drug was prescription or illicit. For example, if the generic term 'opiate' was used, no one could determine if the medical examiner or coroner meant heroin or a prescription-type opiate.

Unitentional Poisoning Deaths
Washington State Death Certificate Data, 2005-2006

Type of Drug	Number of Deaths	Percent
Prescription	709	63
Illicit	118	11
Both	243	22
Neither	46	4
Total	**1116**	

Multiple Drugs Involved

In 2006, 71% of those who died from an opiate drug overdose had taken more than one drug. The average number of drugs taken was 2.6. The average number of drugs taken was higher among those who died from prescription opiate overdose compared to illicit opiates. The other drug categories most commonly taken were antidepressants and benzodiazepines, which are anti-anxiety drugs such as valium.

Potential Causes of the Increasing Death Rate

In Washington State at the end of the 1990s, various groups, including the Medical Quality Assurance Commission, Podiatric Medical Board, and the Board of Osteopathic Medicine and Surgery recognized the important use of opiates for treating chronic, non-cancer pain and developed new policies. These new policies reflected a major shift in thinking. The policies were also based on low-grade evidence suggesting that patients suffered from an under treatment of pain and there was a low risk of addiction while taking opiates long-term. These new policies led to a change in regulatory restrictions for opiate use for chronic, non-cancer pain.

At the national level[3] and in states[4] and counties that have conducted in-depth examinations of the increase in poisoning deaths, prescription opiates accounted for much of the increase. From 1995-2004 in Washington State, there was a shift from illicit and unspecified opiate-related deaths to prescription opiate-related deaths. On death certificates, the opiate listed with the most dramatic increase was methadone.

In Washington State, the increase in death rate from unintentional poisoning coincides with a jump in prescription opiate sales and subsequent distribution from manufacturers to hospitals and pharmacies. From 1997-2005, the approximate number of methadone doses increased 1,042% from 918,004 to 10,481,780 and the approximate number of oxycodone doses increased 500% from 1,941,270 to 11,650,127.[5] Because methadone distributed through pharmacies and hospitals is only for pain management, this data does not reflect methadone dispensed in methadone maintenance treatment programs.

Besides an increase in distributed prescription opiates, there appears to be a trend toward using more potent opiates and/or a higher dose per prescription. In the Washington Workers' Compensation System, prescriptions for the most potent opiates (Schedule II) as a percentage of all scheduled opiate prescriptions (Schedules II, III & IV) increased from 19.3% in 1996 to 37.2% in 2002.[6]

Among long-acting opiates, the average daily morphine equivalent dose increased by 50% to 132 milligrams (mg) per day. As of 2005, the average daily morphine equivalent dose had further increased to 150 Mg per day. From May-July, 2006, the Washington State Medicaid Program reviewed prescription data. Of the 3,591 Medicaid clients treated for chronic, non-cancer pain with at least 90 Mg of morphine equivalent dosage per day, 2,739 (76%) received more than 180 Mg of morphine equivalent dosage per day.

Causes of Unintentional Opiate-related Poisoning Deaths

Legitimate medical treatment with opiates

Pain is very common. About 24% of U. S. adults reported moderate to extreme pain in the past month.[7] In 2005, about 19% of the 50 million United States adults who used Express Scripts, a large commercial pharmacy benefit program, received a prescription for opiates.[8]

Chronic opiate use is linked to the development of tolerance to its analgesic or pain relieving effect.[9] Tolerance is defined as a decrease in a drug's effect over time so that larger doses are required to achieve the same effect. Chronic opiate use also may be associated with hyperalgesia, an increase in abnormal pain sensitivity.[9] In an attempt to maintain pain relief, the combination of tolerance and hyperalgesia may lead to rampant dose escalation.[9]

Respiratory depression, a decrease in the rate or depth of a patient's breathing, is one of the side effects or risks of opiate use. Opiate poisoning deaths are often due to respiratory failure from respiratory depression. As with pain relief, tolerance to respiratory depression develops with chronic opiate use. However, research suggests that tolerance to respiratory depression is incomplete and may develop more slowly than tolerance to the pain relieving effect.[10]

Other risk factors for unintentional opiate-related poisoning include:

- Concurrent use of other central nervous system depressants like benzodiazepines and sedative-hypnotics.
- The existence of other medical conditions associated with compromised respiratory function such as chronic obstructive pulmonary disease, congestive heart failure, and sleep apnea.

Misuse of Prescription Opiates

In addition to legitimately prescribed opiates, prescription opiates can be obtained in various other ways:

- From a friend or relative with a prescription.
- Obtained from emergency rooms through fraudulent drug-seeking means.
- Purchased on the street or from the Internet.
- Stolen from pharmacies.

During treatment for chronic pain, prescription opiates can be misused by taking more than the prescribed dose or by combining opiates with illicit drugs or alcohol.

Nationally, the U. S. Substance Abuse and Mental Health Services Administration's Drug Abuse Warning Network tracks drug-related emergency department visits. These visits relate to both misuse and abuse of drugs. For prescription drugs, the definition of 'non-medical' use includes:

- Taking more than the prescribed dose of a prescription drug.
- Taking a drug prescribed for another individual.
- Deliberate poisoning with a drug by another person.
- Documented misuse or abuse of a prescription drug.

Opiates accounted for about one-third of all non-medical prescription drug use visits, making them the most frequently reported drugs. In 2006 in King and Snohomish counties, there were 3,529 reports of prescription opiate emergency department visits. The visits were identified as:

- Drug abuse (54%).
- Adverse reaction (18%).
- Accidental overmedication (18%).

From 1999-2006 in Washington State, addiction treatment admissions where prescription opiates were the primary drug of abuse increased from 1.0% to 4.6%. Treatment admissions included public pay clients in inpatient, outpatient, and methadone maintenance treatment. Admissions also included private pay clients entering methadone maintenance treatment.

Trends in Non-medical Use of Prescription Pain Killers

From the 2005 National Survey on Drug Use and Health data, the illicit drug category with the highest number of new users was 'non-medical,' prescription pain medication.[11] The survey defined 'non-medical' use as taking medication not prescribed or taking medication for the experience or for the feeling that it caused.

In 2005, there were 2.2 million people, ages 12 years old or older, who took prescription pain medication non-medically for the first time and about 4.7 million who were current users of prescription pain medication. The average age for first time non-medical use was 23 years. About 55% of first time, non-medical users were female. About 12% of current users met the abuse or dependence criteria. The 2005 survey estimated there were 306,000 non-medical, prescription pain medication users in Washington State.[11]

Among non-medical users of prescription pain medications, the most prevalent source for drugs (about 60%) was "from a friend, or relative, or for free." Other sources for obtaining prescription pain medications include:

- About 17% from a doctor.
- 4% from a drug dealer.
- 1% purchased from the Internet.[11]

Youth Drug Use

The 2006 Healthy Youth Survey estimated the following percentage of youth who reported using a painkiller such as oxycontin or percocet to get high in the past 30 days:

- 4% of 8th graders (about 3,600 students).
- 10% of 10th graders (about 9,300 students).
- 12% of 12th graders (about 10,900 students).

Native American students reported less abuse of painkillers compared to those in other race groups. Students who lived in rural, urban and suburban areas of the state had similar levels of painkiller abuse. The students who reported painkiller abuse tended to have lower socioeconomic status, lower quality of life, lower grades and did not enjoy school as much as their peers. They were also students who participated in other risky behaviors such as other substance abuse and drinking and driving.

There are no national surveys that ask the same question. However, according to the 2005 National Survey on Drug Use and Health, 10% of youth ages 12-17 reported using prescription pain relievers in their lifetime.[11]

Teens have access to prescription pain relievers. Nationally, according to the 2005 Partnership Attitude Tracking Study, nearly one-in-five teens (7th-12th graders) in their lifetime reported having used prescription medications that were not prescribed for them.[12]

- More than three out of five teens reported prescription pain relievers are easy to get from parents' medicine cabinets.
- Half of teens say it is easy to get prescription medications through other people's prescriptions.
- About 35% of teens believe prescription pain relievers are safer to use than illegal drugs.

- Parents are less likely to discuss the risks of prescription medicine abuse than they are to discuss the risks of marijuana abuse.

Childhood Poisoning

While the highest death rates occur among adults, the majority of reports to the Washington Poison Center (WAPC) are for non-fatal poison exposures to children under six years. In 2004, the WAPC received 69,000 calls for advice about a possible poisonous exposure to a human. The WAPC also handles possible exposures to animals.

- About 90% of the incidents occurred in a home.
- 52% of the incidents occurred to a child under six years.
- The majority of all exposure calls (83%) were handled without transfer to a health care facility.
- 94% percent of exposure calls to children ages six or under were handled without transfer to a health care facility.

The most common substances involved in possible exposures are medications. For example, the top three includes analgesics, topical preparations, and cold and cough preparations. Other common exposures include personal care products, and cosmetics.

Recommended Strategies

At present, the primary cause of the increased unintentional poisoning death rate is unclear. It is likely due to a combination of factors such as:

- Prescription drug misuse and abuse.
- The increase in use of prescription opiates with an increase in average daily dose.
- The development of tolerance.

Because no single cause has been identified, a variety of prevention strategies is recommended.

To date, no one has systematically evaluated interventions to change behaviors and risk factors associated with the epidemic of poisoning deaths among adults. However, the following promising prevention strategies are provided to address the increased unintentional poisoning death rate. These strategies are based on recommendations from the North Carolina Task Force to Prevent Deaths from Unintentional Drug Overdoses[13] and from the Centers for Disease Control and Prevention (CDC).[14]

Evidence-Based Strategies

Despite the lack of evidence-based interventions for unintentional death from prescription opiates, several prevention strategies show some impact on poisoning in a broader sense.

Increase awareness of the Washington Poison Center (WAPC)

Use of poison control centers has significantly reduced medical costs. Every call to a poison control center saves $175 in other medical spending.[15] By providing effective home management of poisoning emergencies, poison centers:

- Reduce the number of 911 calls.
- Prevent undue ambulance dispatches.
- Avoid costly hospital visits.

It is not clear how aware the public is of the WAPC's services. Efforts to increase awareness in the WAPC's services will benefit Washington State citizens.

Continue and expand the Washington State Screening, Brief Intervention, Referral and Treatment (WASBIRT) Program

The WASBIRT program screens trauma, general medical, and other patients for alcohol or drug misuse, abuse, or addiction. The majority of the screening occurs in emergency departments. Also, as appropriate, the WASBIRT program provides brief interventions or referrals for higher levels of care.

Hospitals in six counties with some of the largest emergency room patient loads are participating in the WASBIRT Project. These include: Harborview Medical Center in King County; Southwest Washington Medical Center in Clark County; Providence Everett Medical Center in Snohomish County; Tacoma General and Allenmore Hospitals in Pierce County; Toppenish Community Hospital, Yakima Regional Medical and Heart Center, and Yakima Valley Memorial Hospital in Yakima County; and Providence St. Peter Hospital in Thurston County.

Up to 50% of trauma patients seen in an emergency department (ED) had been using alcohol and other drugs prior to admission.[16] As a means to prevent unintended poisoning, EDs are ideal settings to identify and intervene in drug-seeking behaviors.

Also, studies show that psychosocial interventions delivered to ED and to trauma center patients can:

- Reduce alcohol and drug consumption.
- Prevent future injury, including overdoses.
- Help patients with more severe problems.
- Help patients access intensive, community-based chemical dependency treatment.

Of those who receive a WASBIRT screen, approximately 50% need a brief intervention and 16% need higher levels of care. The need for brief intervention and higher levels of care in this population is about four and a half times higher than in the general population. Data from the WASBIRT Evaluation Project shows a significant reduction in alcohol and other drug use and a significant increase in abstinence across all interventions.[17]

Promising or Experimental Strategies

Strategies Underway in Washington State

Implement a statewide Pharmacy Take Back Program

Pharmacy Take Back Programs allow citizens to bring back unwanted or outdated medications to the pharmacy for proper disposal. The goals of this program are to reduce water pollution, diversion to other users and unintentional poisoning. The drugs collected through the programs are incinerated.

Clark County runs a pilot program in which pharmacies can take non-controlled substances and the Sheriff's Department can take controlled substances (e.g., prescription pain relievers). Group Health Cooperative has a similar program for non-controlled substances; this program is not yet statewide.

A waiver from the U. S. Drug Enforcement Agency is required before these types of programs can accept controlled substances. Department of Health has applied for a waiver. The Governor wrote a letter to Drug Enforcement Agency in support of the waiver.

Education for health care professionals

Educational interventions are needed to raise professional awareness of the:

- Magnitude.
- Risks.
- Signs of significant tolerance.
- Signs of unintentional overdose.

In Washington State, the Interagency Workgroup on Practice Guidelines (including representatives from the Department of Corrections, Department of Health, Department of Labor and Industries, Department of Social and Health Services, and Health Care Authority) in collaboration with actively practicing physicians who specialize in pain management has released a guideline on opioid dosing for chronic non-cancer pain. These clinical and practice guidelines are part of a yearlong educational campaign to improve care and safety when treating chronic non-cancer pain with opioids.

The guidelines recommend monitoring pain and function in the medical record. If opioid doses are substantially increasing with no clear improvement in pain and function, then rampant tolerance may be developing. These guidelines recommend when to seek a specialty consultation. The guidelines specifically recommend a pain management consultation before increasing the daily dose of opiates above 120 Mg of oral morphine equivalents, if pain and function have not improved.

Since the release of these guidelines, there has been concern expressed by the American Pain Society and other pain advocates that these guidelines may add unnecessary restrictions and additional barriers to patients who experience pain.

Screening for high abuse risk patients

The Washington State Medicaid Program identifies clients who have received ten or more narcotic prescriptions per month from multiple providers. A 12-month prescription history is provided to prescribing providers. This is done to develop a comprehensive intervention strategy to improve the quality of life, reduce misuse of narcotics, and to assist providers in complex clinical decision-making. Also, to improve medical care, encourage providers to use the Medicaid-developed "toolkit" that links the medical community to resources and information. The "toolkit" gives the medical provider a comprehensive medical picture to:

- Improve care coordination.
- Review the medical treatment plan.
- Refer the patient, when appropriate, for chemical dependency screening and treatment.

For the "toolkit" Web site, see "For More Information" at the end of the chapter

The Department of Social and Health Services Patient Review and Coordination (PRC) Program

The PRC Program is a health and safety program for Medicaid clients. The PRC Program conducts utilization reviews to determine if there is inappropriate or medically unnecessary use of medical services. This includes the inappropriate use of opiates. For better coordination of medical care, PRC Program clients are restricted to one Primary Care Provider, one opiate prescriber, one pharmacy, or one hospital. The PRC Program clients have shown a:

- 33% decrease in Emergency Department use.
- 37% decrease in physician visits.
- 24% decrease in the number of prescriptions.

Increase use of case management in emergency departments for patients who frequently visit seeking pain medication

For patients who frequently visit emergency departments seeking pain medication, case management might reduce misuse of narcotics. Case management creates professional collaboration and exchange of medical information between emergency room personnel, primary care doctors, and pharmacists. Hospitals in Olympia, Spokane, and Tacoma have started such programs. Providence St. Peters, in Olympia, has seen a 50% reduction in emergency department visits and a 40% decrease in total hospital charges for patients enrolled in its program.

Strategies Underway in Other States

Electronic prescription monitoring system for controlled substances

The goals of electronic prescription monitoring systems are to:

- Limit access of controlled substances only to those with legitimate medical needs.
- Track instances in which controlled substances are being obtained from multiple prescribers for a variety of complaints.
- Identify suspected controlled substance abusers and steer them into treatment.

Prescription-monitoring programs reduce per capita supply of prescription pain relievers and stimulants, potentially reducing their abuse. In addition, states that proactively identified patients who filled multiple prescriptions from different health care providers and investigated providers whose prescribing practices were outside the standards of accepted medical practice were more effective in reducing the per capita supply than states that were reactive in their regulatory approach.[18] Researchers have not determined the effectiveness of these systems in reducing poisoning-related deaths or their impact on treating pain prevalence.

The U. S. Government Accountability Office conducted a study on state monitoring programs of prescription drugs.[19] They concluded that state monitoring programs provide a useful tool to reduce diversion. In 2005, a federal law entitled the National All Schedules Prescription Electronic Reporting, provided for the establishment of a controlled substance monitoring program in each state. The funding and implementation of this law never occurred.

The CDC recommends that states with prescription monitoring programs proactively identify and investigate patients and providers.[14] There are currently three states – Kentucky, Nevada and Utah – that have monitoring systems that provide access to prescription information to physicians to help reduce unwarranted prescribing and subsequent diversion of abused drugs in their states.

In Washington State, the Governor's Blue Ribbon Commission bill, which passed in 2007, gave the Department of Health the authority to implement an electronic prescription monitoring system. In 2008, the Legislature gave DOH partial funding for the system. DOH also applied for federal funding.

Other Promising or Experimental Strategies

Conduct research to identify the underlying cause of increased prescription opiate-related poisoning deaths

To effectively tailor prevention strategies, there is a need to determine the relative contributions of legitimate opiate medical treatment versus individual prescription opiate misuse and abuse. To further clarify the underlying causes of poisoning deaths, medical examiners need to collect information such as the opiate's source, the prescribed dose, and an estimated amount taken.

Provide educational interventions for the public

Provide broad-based educational interventions to raise awareness about:

- The magnitude and risks of unintentional overdose.
- Preventive behaviors and precautions.
- Available emergency and treatment resources.
- How to prevent substance abuse.

Target families with young children to raise awareness to:

- Eliminate potential hazards such as assure that medicines, vitamins, and household cleaners are either locked with a child safety latch or out of reach.
- Call the national poison hotline at 1-800-222-1222 if a child may have consumed a poisonous substance.

Target families with teenage children to raise awareness to:

- Lock up all prescription medicines, especially pain relievers in a lock box.
- Encourage parents to talk with their teens about the dangers of abusing prescription drugs.
- Dispose of unused prescription drugs by mixing unused drugs with coffee grounds, kitty litter, or another undesirable substance and place in a sealed container before disposing in the trash. Prescription drugs should not be flushed down the toilet unless specifically instructed to do so. Where a community prescription drug take-back program exists, they are a good way to dispose of unused pharmaceuticals.

For existing drug prevention efforts, especially directed at teens, incorporate specific education about the risks of unintentional overdose of prescription narcotics.

Increase drug abuse prevention

The single most effective way of dealing with chemical dependency is preventing it. School-based programs focusing on social influences prevent or reduce drug use among young people, including both marijuana and hard drugs such as heroin.[20] The programs are most effective with youth who are not heavy drug users. These programs include training in how to resist peer pressure and improve decision-making skills.

Increase the number and use of drug courts

'Drug Courts' integrate drug treatment services with judicial system case processing, monitoring, supervision, mandatory drug testing, sanctions and other administrative services. The primary purpose of these programs is to use the court's authority to reduce crime by changing defendants' substance abuse behavior. In exchange for the possibility of dismissed charges or reduced sentencing, eligible defendants agree to participate in the program, which includes substance abuse treatment.

The available evidence suggests that drug courts reduce drug use and re-arrest rates, at least during treatment. However, we need additional evidence to determine whether drug courts are effective.[21]

Implementation Plan

The four priority areas have a DOH Implementation Plan. These specific plans provide an outline of DOH's Injury and Violence Prevention efforts through 2010.

Goal: Increase awareness of the increasing number of opiate overdose deaths among state, local, and non-profit partners.

Objectives	Implementing Organizations	Timeline
Publish data and possible prevention strategies in the Health of Washington State.	Washington State Department of Health	Ongoing
To educate partners about the increase in opiate overdose deaths and possible prevention strategies by giving presentations.	Washington State Department of Health	Ongoing

Goal: Develop recommendations for prevention strategies collaboratively with partner agencies.

Objectives	Implementing Organizations	Timeline
Convene a DOH-led workgroup to discuss the problem of unintentional drug overdoses as a group and possible actions to reduce and ultimately prevent unintentional poisoning deaths.	Washington State Department of Health	By June, 2008 then ongoing
Develop DOH prevention strategies in collaboration with other agency partners.	Washington State Department of Health	By December 2008

Goal: Continue poisoning mortality and morbidity surveillance to continue to describe the problem and help tailor prevention strategies.

Objectives	Implementing Organizations	Timeline
To analyze annual death data to identify unintentional poisoning deaths and individual drugs involved in overdoses.	Washington State Department of Health	Ongoing
To analyze annual hospitalization data to identify unintentional poisonings and individual drugs involved in overdoses.	Washington State Department of Health	Ongoing

For More Information

Washington State

Department of Social and Health Services (DSHS) has developed a Web site and toolkit to help with resources regarding drug and alcohol issues
https://fortress.wa.gov/dshs/maa/pharmacy/ToolKit.htm

Interagency Guideline on Opioid Dosing for Chronic Non-cancer Pain
www.lni.wa.gov/news/2006/pr061003a.asp

Health of Washington State, Chapters Alcohol Abuse and Dependence and Drug Abuse and Dependence in the Major Risk and Protective Factors section, and Poisoning in Injury and Violence section
www.doh.wa.gov/HWS

Medical Quality Assurance Commission, Guidelines for Pain Management
https://fortress.wa.gov/doh/hpqa1/hps5/Medical/painmgmt.htm

Northwest Product Stewardship Council, Medicine Take Back Program
www.medicinereturn.com/coordination

Patient Review and Coordination Program
https://fortress.wa.gov/dshs/maa/PRR

Washington State Alcohol and Drug 24 Hour Help Hotline
1-800-562-1240
www.adhl.org

Washington State Attorney General's Operation Against Meth
www.atg.wa.gov/AlliedAgainstMeth/default.aspx

Washington State Board of Pharmacy
https://fortress.wa.gov/doh/hpqa1/HPS4/Pharmacy/default.htm

Washington State Childhood Injury Report
www.doh.wa.gov/hsqa/emstrauma/injury/pubs/wscir/default.htm

Washington State Division of Alcohol and Substance Abuse
www.dshs.wa.gov/dasa/

Washington State Juvenile Justice Advisory Committee
www.juvenilejustice.dshs.wa.gov/

Washington State Medical Association
www.wsma.org/index.html

Washington State Board of Osteopathic Medicine and Surgery, Guidelines for Pain Management
https://fortress.wa.gov/doh/hpqa1/hps7/Osteopath/Documents/GuidelinesForPainManagement.pdf

Washington State Podiatric Medical Board
https://fortress.wa.gov/doh/hpqa1/hps7/Podiatry/default.htm

Washington State Poison Center
www.wapc.org/

Washington State Screening, Brief Intervention, Referral and Treatment (WASBIRT)
www.dshs.wa.gov/rda/projects/wasbirt.shtm

Washington State Toxicology Laboratory
www.wsp.wa.gov/about/flsbhome.htm

National

Big Brothers Big Sisters of America
www.bbbsa.org

Communities That Care Community Planning System
http://ncadi.samhsa.gov/features/ctc/.

Drug Policy Alliance, New Mexico's 911 Good Samaritan law
www.drugpolicy.org/about/stateoffices/newmexico/911/

Life Skills Training Program
www.lifeskillstraining.com/

National Center for Injury Prevention and Control, Poisoning fact sheet
www.cdc.gov/ncipc/factsheets/poisoning.htm.

National Youth Violence Prevention Center, Substance Abuse Prevention - Program Evaluations, Best Practices and Model Programs
www.safeyouth.org/scripts/faq/substabuseprev.asp

Preventing Prescription Drug Abuse
www.samhsa.gov/rxsafety/

Project Alert
www.projectalert.best.org

Signs and symptoms of drug addiction
www.mayoclinic.com/health/drug-addiction/DS00183/DSECTION=2.

Strengthening Families Program
www.strengtheningfamilies.org

Substance Abuse in Brief Fact Sheet – Pain Management without Psychological Dependence: A Guide for Healthcare Providers
http://ncadistore.samhsa.gov/catalog/productDetails.aspx?ProductID=17500

Western Center for the Application of Prevention Technologies
http://captus.samhsa.gov/western/western.cfm

Endnotes

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[3] Paulozzi, L., Budnitz, D. S., & Xi.Y. (2006). Increasing deaths from opioid analgesics in the United States. *Pharmacoepideniology and Drug Safety*, 15(9), 618-27.

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