INTRODUCTION

Many prescription and non-prescription drugs have abuse potential. This review provides information about online educational materials for various classes of drugs. Internet searches were conducted to identify information that was deemed to be of reasonable quality. This is not a complete inventory of all sites, rather it focuses on representative national sites as well as ones specific to Washington State. Information is provided describing: the intended audience; the main message of the site; and the quality, types and ways in which information is presented. The mission and funding sources of the organizations sponsoring the websites are described. This is particularly important when manufacturers of medications are providing funding regarding safety of their products. The intent here is not to endorse these webpages, but to provide information about a range of available online medication safety resources.

Drug categories described:

- General medication safety resources
- Stimulants
- Sedatives
- Opioids
- Dextromethorphan
- Loperamide

Other related information:

- WA State Medication Disposal
- WA State Recovery Helpline
- WA Stop Overdose

This report was produced by the Alcohol and Drug Abuse Institute, University of Washington, with support from the Washington State Department of Social and Health Services, Division of Behavioral Health and Recovery.
GENERAL MEDICATION SAFETY RESOURCES

Partnership for Drug-Free Kids- Above the Influence
http://abovetheinfluence.com/drugs/prescription/#facts

Audience: Teens
Main Message: It is important to understand drug facts
Quality/Types/Presentation of Information: Text heavy, with citations, 10th grade level
Mission: We are committed to helping families struggling with their son or daughter's substance use. We empower families with information, support and guidance to get the help their loved one needs and deserves. And we advocate for greater understanding and more effective programs to treat the disease of addiction.
Funding: Corporations, government grants, individuals and foundations.

National Institute on Drug Abuse (NIDA)
https://www.drugabuse.gov/publications/research-reports/misuse-prescription-drugs/summary

Audience: Adults
Main Message: The physical and mental effects of medication use and abuse
Quality/Types/Presentation of Information: Mostly text with some pictures and graphics, 14th-15th grade level
Mission: NIDA is the lead federal agency supporting scientific research on drug use and its consequences. Our mission is to advance science on the causes and consequences of drug use and addiction and to apply that knowledge to improve individual and public health.
Funding: Federal

Consumer Healthcare Products Association- Educational Foundation Know Your OTCs
http://www.knowyourotcs.org/

Audience: Consumers of over-the-counter medicines
Main Message: Be confident in the decisions you make to use, store, and dispose of your medicines
Quality/Types/Presentation of Information: Easy to digest, concise website written at 11th grade reading level without citations. Provides general information on how to read medicine labels and store and dispose of medicines in addition to specific information on individual OTC medicine safety
Mission: Empower self-care by preserving and expanding choice and availability of consumer healthcare products
Funding: CHPA represents more than 80 manufacturer member companies and 155 associate member companies. Manufacturer members manufacture or market OTC medicines and dietary supplements, including contract and private label manufacturers.
Stimulant medications include methylphenidate (Ritalin and Concerta) and dextroamphetamine (Dexedrine and Adderall). They are prescribed to treat ADHD in children and adults and narcolepsy in adults. These medications are commonly misused by young adults for the purpose of enhancing study and test performance. A 2014 survey found that nearly one in every five college students have misused prescription stimulants. Stimulant abuse carries risk of dependence, withdrawal and overdose. Side effects, especially when taken in large doses, can include increases in heart rate, blood pressure, body temperature, and anxiety and paranoia. Long-term stimulant abusers have increased risk of heart attack and stroke.

**Partnership for Drug-Free Kids**


**Audience:** Parents

**Main Message:** Know the facts to keep your child safe

**Quality/Types/Presentation of Information:** Text based fact sheet, 10th grade level

**Mission:** We are committed to helping families struggling with their son or daughter's substance use. We empower families with information, support and guidance to get the help their loved one needs and deserves. And we advocate for greater understanding and more effective programs to treat the disease of addiction.

**Funding:** Corporations, government grants, individuals and foundations.

**Children and Adults with Attention-Deficit/Hyperactivity Disorder (CHADD)**


**Audience:** Parents and Teens

**Main Message:** What is medication diversion and how do you prevent it?

**Quality/Types/Presentation of Information:** Text based, written at 10th grade level

**Mission:** CHADD improves the lives of people affected by ADHD

**Funding:** Membership dues, conferences, advertising, governmental and pharmaceutical grants, donations and interest.
National Institute on Drug Abuse (NIDA): Stimulant ADHD Medications

**Audience:** Adults

**Main Message:** The physical and mental effects of stimulant use and abuse

**Quality/Types/Presentation of Information:** Mostly text with some pictures and graphics, 14th-15th grade level

**Mission:** NIDA is the lead federal agency supporting scientific research on drug use and its consequences. Our mission is to advance science on the causes and consequences of drug use and addiction and to apply that knowledge to improve individual and public health.

**Funding:** Federal

The Coalition to Prevent ADHD Medication Misuse

[Research](http://www.cpamm.org/research/)

[College Administrators](http://www.cpamm.org/resources/collegeadmin/)

**Audience:** Parents, college administrators and college students

**Main Message:** Research and information to encourage speaking up about ADHD prescription stimulant medication misuse, abuse and diversion

**Quality/Types/Presentation of Information:** Infographics with citations, very visual presentation with thoughtfully placed text, 6th grade level

**Mission:** We strive to be a trusted source of information on the issue of ADHD prescription stimulant medication misuse, abuse and diversion, with a primary focus on college students. CPAMM will use its knowledge to make a difference and help prevent the nonmedical use of these medications.

**Funding:** SHIRE Pharmaceutical Community
**National Coalition Against Prescription Drug Abuse (NCAPDA)**

http://ncapda.org/education/drugs/stimulants/

**Audience:** Parents and community members  
**Main Message:** Spread the word, one pill can kill  
**Quality/Types/Presentation of Information:** One page mostly text fact sheet with a useful medication picture and links, 10th grade level  
**Mission:** NCAPDA was founded to prevent the impact of prescription drug abuse/misuse through community education, policy change and legislative advocacy at the local, state and national levels  
**Funding:** Fidelity Investments, Fog City Entertainment, John H Wright Photography, Mothers with a Purpose, Richard and Donna Corn and the Paul DeVincenzi Family

### PRESCRIPTION SEDATIVES (BENZODIAZEPINES, MUSCLE RELAXANTS, SLEEP AIDS, ETC.)

Prescription sedatives – sometimes called depressants or hypnotics - are drugs that slow down the activity of the central nervous system, including the brain. Some examples of prescription sedatives are benzodiazepines (Xanax, Valium, Klonopin, etc.), prescription sleep aids (Ambien, Lunesta, etc.), muscle relaxants, and barbiturates. When taken at appropriate doses, sedatives can be useful in treating anxiety, sleep disorders, and seizures. However, sedatives are dangerous when taken in high doses or with alcohol or other sedatives, and can lead to overdose or death. Sedatives can also cause dependence and withdrawal when taken for long periods of time or in high doses.

**Patient Education Center – Harvard Medical School: Sedative, Hypnotic or Anxiolytic Drug Use Disorder**

http://www.patienteducationcenter.org/articles/substance-abuse-depressants-or-sedative-hypnotic-drugs/

**Audience:** Patients  
**Main Message:** Patients taking sedative, hypnotic, and anxiolytic medications should be aware of their risks, especially risks of dependence and overdose, which are greater when taken in high doses and with other sedatives including alcohol  
**Quality/Types/Presentation of Information:** Text heavy webpage at around an 11th grade reading level with no citations. The website includes what sedative, hypnotic, and anxiolytic medications are, their risks, symptoms of dependence, how a doctor would diagnose sedative, hypnotic, or anxiolytic use disorder, prevention information, and treatment information  
**Mission:** To provide multimedia access to reliable and relevant health information at and beyond the point of care  
**Funding:** Harvard Medical School
**National Institute on Drug Abuse (NIDA): Facts on CNS Depressants**

**Audience:** Students, parents, educators, and the general public  
**Main Message:** When taken as directed, CNS depressants can be safe and helpful, but when people take someone else’s prescription drugs or take the drugs for entertainment or pleasure, they may experience dangerous consequences  
**Quality/Types/Presentation of Information:** Two page text-heavy fact sheet written at about an 11th grade reading level with no citations. Facts on types of CNS depressants, how they are abused, how they affect the brain, negative effects, information on dependence and withdrawal, treatment for addiction to CNS depressants, and what to do if you or someone you know is abusing or misusing prescription drugs

**Partnership for Drug-Free Kids: Prescription Sedatives & Tranquilizers**
http://drugfree.org/drug/prescription-sedatives-tranquilizers/

**Audience:** Parents, educators, and mentors  
**Main Message:** Know the facts about prescription sedatives/tranquilizers and keep your child safe  
**Quality/Types/Presentation of Information:** Webpage written at a 10th grade reading level. Includes an overview, how the drugs are used, what the risks are, what the signs of use are, a list of brand names/slang terms, and links to next steps (secure and dispose of medicine properly, talk with your kids, and get one-on-one help)

**National Institute for Drug Abuse (NIDA) for Teens: Prescription Depressant Medications**
https://teens.drugabuse.gov/drug-facts/prescription-depressant-medications

**Audience:** Teens  
**Main Message:** Prescription depressants carry risk of dependence and addiction which are increased when misused  
**Quality/Types of Information Presented:**  
Text, bullets, and charts written at a 9th grade reading level with citations and references to other sections of NIDA for more information. Includes sections on prescription depressant misuse, what happens to your brain and body when you use prescription depressants, overdose information, information on the addictive nature of depressants, facts about teens using prescription depressants, and information on what to do if some-one you know needs help.
Opioids help reduce pain signals in the brain and are often prescribed following surgery or injury, or in certain health conditions for pain management for. Commonly prescribed opioids include codeine, morphine, oxycodone, hydrocodone, methadone, and fentanyl. Opioids can be helpful in managing short-term pain, but carry serious risks and side effects, including risk of addiction and overdose, including death. There is poor evidence for the effectiveness for opioids for chronic non-cancer pain. Risks are greater with prolonged use and when opioids are taken with alcohol or sedative medications, such as benzodiazepines (i.e. Xanax or Valium), muscle relaxants (i.e. Soma or Flexeril), hypnotics (i.e. Ambien or Lunesta) or stimulant drugs (licit and illicit). Opioid use disorder and overdose are at record high levels across the United States and in Washington. In Washington State alone, 718 people died from overdoses involving opioids in 2015.

**Washington Health Alliance and the Dr. Robert Bree Collaborative: Opioid Medication & Pain: What You Need to Know**


**Audience:** Patients looking to reduce pain  
**Main Message:** Opioids are strong prescription medications and carry substantial risk compared to non-opioid pain treatments, including risk of addiction and overdose  
**Quality/Types/Presentation of Information:** Two page text-based information sheet at a 5th grade reading level with citations. Information on non-opioid pain treatment alternatives, warnings about opioid medications, facts and figures about the opioid epidemic and teen opioid abuse, and recommendations for keeping kids and teens safe from opioid medication.

**Washington Health Alliance**  
**Mission:** To build a strong alliance among patients, doctors, hospitals, purchasers, health plans and others to promote health and improve quality and affordability by reducing overuse, underuse and misuse of health care services  
**Funding:** Membership fees and grants from organizations focused on improving health care

**Bree Collaborative**  
**Mission:** To provide a mechanism through which public and private health care stakeholders can work together to improve quality, health outcomes, and cost effectiveness of care in Washington State  
**Funding:** WA State funding
U.S. Centers for Disease Control and Prevention (CDC) & the American Hospital Association (AHA):
Prescription Opioids: What You Need to Know

**Audience:** Pain patients  
**Main Message:** Patients should know about the risks and side effects of opioid use  
**Quality/Types/Presentation of Information:** 2-page fact sheet written at a 10th grade reading level with no citations. Sections for risks and side effects, things that increase those risks, options for alternatives to opioid medication, and how to mitigate associated risks.

**U.S. Centers for Disease Control and Prevention (CDC)**  
**Mission:** To protect America from health, safety and security threats, both foreign and in the U.S.  
**Funding:** Federal

**American Hospital Association (AHA)**  
**Mission:** To advance the health of individuals and communities  
**Funding:** Primarily member dues (hospitals, health care systems, and other providers of care) but also funded by businesses and other organizations that share an interest in objectives of AHA including pharmaceutical companies

U.S. Centers for Disease Control and Prevention (CDC): Pregnancy and Opioid Medication

**Audience:** Pregnant women taking opioid pain medication  
**Main Message:** Women who take opioid pain medications should be aware of the possible risks during pregnancy  
**Quality/Types/Presentation of Information:** 2-page bulleted fact sheet at an 11th grade reading level with citations. Sections explaining what opioid pain medications are, the possible risks to the fetus or newborn, what to do if you find out you’re pregnant while taking opioids, and information about breastfeeding while taking opioids.  
**Funding:** Federal

Washington State Department of Health: Take as Directed: Prescription Pain Medicine
http://www.doh.wa.gov/YouandYourFamily/PoisoningandDrugOverdose/TakeAsDirected

**Audience:** Pain patients, older adults, parents, and teens  
**Main Message:** People should know how to prevent poisoning and overdose  
**Quality/Types/Presentation of Information:** Text based website at a 10th grade reading level with no citations. Links to webpages for pain patients, older adults, parents, teens, FAQs, and resources  
**Mission:** To protect and improve the health of people in Washington State  
**Funding:** Federal, state, and fee supported
American Academy of Family Physicians (AAFP) and the AAFP Foundation: Safe Use, Storage, and Disposal of Opioid Drugs

**Audience:** Patients

**Main Message:** Patients should be aware of how to safely use, store, and dispose of opioid drugs

**Quality/Types/Presentation of Information:** In-depth, text-based website written at a 7th grade reading level with non-academic citations

**AAFP**

**Mission:** To improve the health of patients, families, and communities by serving the needs of members with professionalism and creativity

**Funding:** Physician member fees

**AAFP Foundation**

**Mission:** To advance the values of Family Medicine by promoting humanitarian, educational, and scientific initiatives that improve the health of all people

**Funding:** Individual and corporate donations and grants including those from pharmaceutical companies

**Turn the Tide Rx - An Initiative of the U.S. Surgeon General, Public Health Foundation Enterprises, and 100 Million Healthier Lives: About Opioids**
http://turnthetiderx.org/for-patients/

**Audience:** Pain patients

**Main Message:** Opioids can be helpful for a short time but they have serious risks

**Quality/Types/Presentation of Information:** Text heavy website written at a 13th grade reading level with no citations. Sections on managing pain, overdose and addiction risk, side effects, and how to safely take, store, and dispose of opioids.

**Surgeon General of the United States**

**Mission:** To provide Americans with the best scientific information available on how to improve their health and reduce the risk of illness and injury

**Funding:** Federal

**Public Health Foundation Enterprises**

**Mission:** To enable population health initiatives to improve the health and well-being of our communities

**Funding:** Government and private contracts and donations

**100 Million Healthier Lives**

**Mission:** 100 million people living healthier lives by 2020

**Funding:** Institute for Healthcare Improvement (IHI) funded through fee-based programs and services as well as through private donations including those from pharmaceutical companies
**UC Davis Health System & UC Davis Center for Design in the Public Interest: UC Davis Opioid Patient Education Video**


**Audience:** Patients taking opioid medication  
**Main Message:** Patients should be aware of the purpose, risks, side effects, and safe use practices of opioid medications  
**Quality/Types/Presentation of Information:** Easy to digest educational video on the purpose, risks, side effects, and safe use practices of opioid medications. Video length: 7min 37sec

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**UC Davis Health System**

**Mission:** To improve lives and transform health care by providing excellent patient care, conducting groundbreaking research, fostering innovative, inter-professional education, and creating dynamic, productive partnerships with the community  
**Funding:** Federal and state, private foundations, and the pharmaceutical and biotechnology industries

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**UC Davis Center for Design in the Public Interest**

**Mission:** To create accessible, user-centered design outcomes both for and with a diverse cross-section of the public  
**Funding:** UC Davis Office of Research

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**DEXTROMETHORPHAN (DXM)**

Dextromethorphan is the active ingredient in some over-the-counter cough syrups. It is an effective cough suppressant that can be used by children, adolescents and adults. When taken in large doses it can cause intoxication, confusion, dizziness, drowsiness, impaired physical coordination, slurred speech, blurred vision, rapid heartbeat, hallucinations, nausea and vomiting. Recent surveys show that as many as one in 30 teens have used DXM to get high.

**Partnership for Drug-Free Kids**


**Audience:** Parents  
**Main Message:** Know the facts about DXM to keep your child safe  
**Quality/Types/Presentation of Information:** One page fact sheet, mostly text, 10th grade level


**Audience:** Parents  
**Main Message:** Preventing teen over-the-counter cough medicine abuse  
**Quality/Types/Presentation of Information:** Five page guide, mostly text, 7th grade level
**Partnership for Drug-Free Kids & the Consumer Healthcare Products Association**

http://whatisdxm.com/

**Audience:** Teens  
**Main Message:** Draw your own conclusions about DXM  
**Quality/Types/Presentation of Information:** Very visually based webpage with colorful graphics and video stories from people who have abused DXM, 6th-12th grade level

**Stop Medicine Abuse**

http://www.stopmedicineabuse.org

**Audience:** Parents and community members  
**Main Message:** Learn about teen medicine abuse  
**Quality/Types/Presentation of Information:** Very easy to navigate web page, good visual/text balance, 10th grade level  
**Mission:** Stop Medicine Abuse is a prevention campaign working to alert parents and members of the community about the problem of teen abuse of over-the-counter (OTC) cough medicines containing dextromethorphan (DXM)  
**Funding:** Consumer Healthcare Products Association

**Community Anti-Drug Coalition of America**

http://www.preventrxabuse.org/facts-tools/cough-medicine-abuse-at-a-glance/#.WQIrVMZIDIU

**Audience:** Parents  
**Main Message:** Help prevent medicine abuse  
**Quality/Types/Presentation of Information:** One page cough medicine abuse overview, mostly bulleted text, 9th grade level  
**Mission:** Preventing alcohol, tobacco and other drug abuse  
**Funding:** Governmental grants, corporate and individual contributions

**LOPERAMIDE (IMODIUM)**

Loperamide (Imodium) is an over-the-counter medication used to control diarrhea. Recently, there has been an increase in loperamide misuse and abuse with individuals attempting to treat opiate withdrawal symptoms or to attain a euphoric effect with extremely high doses of loperamide. If taken as directed, loperamide has low safety risks. However, if taken in high doses, loperamide becomes dangerous. High dose loperamide can cause serious heart problems that can lead to death. Online medication safety information related to loperamide appears to be limited to FDA and news stories, perhaps given the very recent emergence of misuse of this drug.
U.S. Food and Drug Administration (FDA) Drug Safety Communication on Loperamide
https://www.fda.gov/drugs/drugsafety/ucm504617.htm

**Audience:** Patients, consumers, and health care professionals  
**Main Message:** Taking higher than recommended doses of loperamide (Imodium) through abuse or misuse of the product can cause serious heart problems that may lead to death  
**Quality/Types/Presentation of Information:** Text heavy webpage at around a 15th grade reading level with citations. Sections include the safety announcement, examples of drug interactions, facts about loperamide, additional information for patients and consumers, and a summary of data on loperamide.  
**Mission:** Protecting the public health by assuring the safety, efficacy and security of human and veterinary drugs, biological products, medical devices, our nation's food supply, cosmetics, and products that emit radiation  
**Funding:** Federal

National Public Radio (NPR): Getting High from This Drug for Diarrhea Can Be Fatal
http://www.npr.org/sections/health-shots/2016/05/03/476615084/getting-high-from-this-drug-for-diarrhea-can-be-fatal

**Audience:** The general public  
**Main Message:** Getting high on loperamide can be fatal  
**Quality/Types/Presentation of Information:** Brief text-based article written at a 13th grade reading level with references and interviews with experts. Includes information on the dangers of abusing loperamide, summarizes two case studies, provides an overview of the reasons people are turning to it, and the effects of loperamide at higher doses.  
**Mission:** To work in partnership with Member Stations to create a more informed public – one challenged and invigorated by a deeper understanding and appreciation of events, ideas and cultures  
**Funding:** Individuals, corporations, colleges/universities, foundations, and federal, state, and local governments

American Addiction Centers: Extreme Dangers of Using High-Dose Imodium for Opiate Withdrawal
http://americanaddictioncenters.org/prescription-drugs/imodium-ad-for-opiates/

**Audience:** Families or individuals seeking help for loperamide abuse and/or opioid withdrawal  
**Main Message:** High-dose loperamide is dangerous and people attempting to manage withdrawal symptoms on their own with loperamide should seek professional help  
**Quality/Types/Presentation of Information:** In-depth text heavy webpage written at a 9th grade reading level with no citations. Includes an overview of what loperamide is, how it's improperly used to manage opiate withdrawal, how to treat loperamide overdose, and clinical alternatives to treating opioid withdrawal
Mission: To provide quality, compassionate, and innovative care to adults struggling with addiction and co-occurring mental health disorders

Funding: For-profit drug treatment provider

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**WASHINGTON STATE MEDICATION DISPOSAL, OVERDOSE PREVENTION, & RECOVERY HELPLINE**

**Washington Poison Center: Take Back Your Meds**


Audience: The public

Main Message: Dispose of medications safely to reduce drug abuse, accidental poisonings, and harm to the environment

Quality/Types/Presentation of Information:
Easy to understand website with an interactive map of medication take back locations and simple text based sections on why it's important to safely dispose of medications and how to do so.

Mission: To prevent harm from poisoning through expertise, collaboration, and professional and public education

Funding: The Washington State Department of Health and public and private grants, contracts, and donations

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**Center for Opioid Safety Education (COSE) at the Alcohol & Drug Abuse Institute (ADAI): Stop Overdose**

[www.stopoverdose.org](http://www.stopoverdose.org)

Audience: General public, professionals, and community organizations who want to learn how to prevent and respond to overdose

Main Message: Individuals and communities should know how to prevent and respond to overdose

Quality/Types/Presentation of Information: Text based website written at a 7th grade reading level with visual aids and videos. Website includes overdose education (articles, training videos, interactive overdose risk assessment and overdose education materials, and locator information) and treatment resources for opioid use disorder. Smartphone compatible.

Mission: To reduce fatalities from opioid overdose

Funding: WA State Department of Social and Health Services - Division of Behavioral Health and Recovery
Washington Recovery Helpline
https://www.warecoveryhelpline.org/

**Audience:** People who need crisis intervention and referrals for issues related to substance abuse, mental health, and problem gambling

**Main Message:** Call this line to receive crisis intervention and referrals

**Quality/types of Information and Presentation**
Text heavy website written at a 12th grade reading level with no citations. Includes information on the help line, recovery resources, marijuana information, and a section for teens

**Mission:** To connect people in physical, emotional, and financial crisis to services that will be of help

**Funding:** WA State Department of Social and Health Services - Division of Behavioral Health and Recovery, United Way of King County, King County Veterans and Human Services Levy, Washington State, WIN211, and a number of cities in Washington State

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