



Research Update is published by the Butler Center for Research to share significant scientific findings from the field of addiction treatment research.

# RESEARCH UPDATE

BUTLER CENTER FOR RESEARCH JANUARY 2014

## Prescription Opioids and Dependence

The misuse of prescription opioids (PO) has reached a national epidemic affecting millions of people. The purpose of this Research Update is to provide information on the prevalence, associated risk factors, and potential treatments for PO use and dependence.

### Prevalence of Use and Dependence

According to recent estimates approximately 5% of the U.S. population reported misusing a PO during the past year, a rate higher than any other illicit substance with the exception of marijuana. Rates of PO dependence and PO-related emergency room (ER) visits increased dramatically during the past decade. Between 2004 and 2012 the number of PO-related admissions to substance abuse programs increased by 65% (from 1.4 million to 2.1 million), while the number of ER visits due to PO overdose increased by over 200%, exceeding ER visits due to cocaine, alcohol, or heroin overdose.<sup>1,2</sup> The increase in PO-related deaths and substance abuse treatment admissions between 1999 and 2010 coincides with a dramatic increase in pharmaceutical sales of POs (see Figure 1).<sup>3</sup>

### Vulnerability Factors

Findings from epidemiological and clinical research suggest that risk for PO misuse and dependence differs depending on one's age, gender, and chronic pain status. National rates of opioid dependence increased significantly among adolescents and young adults over the past decade and the estimated number of opioid-related ER visits has more than doubled among individuals younger than 21 years of age (from 13,735 in 2004 to 29,196 in 2008).<sup>4</sup> There are also gender differences in PO misuse such that men have significantly higher lifetime rates of nonmedical use of POs compared to women (15.9% vs. 11.2%).<sup>5</sup> The estimated incidence of PO misuse among those with chronic pain is approximately 20%, far exceeding the 5% incidence rate in the general population.<sup>6</sup>

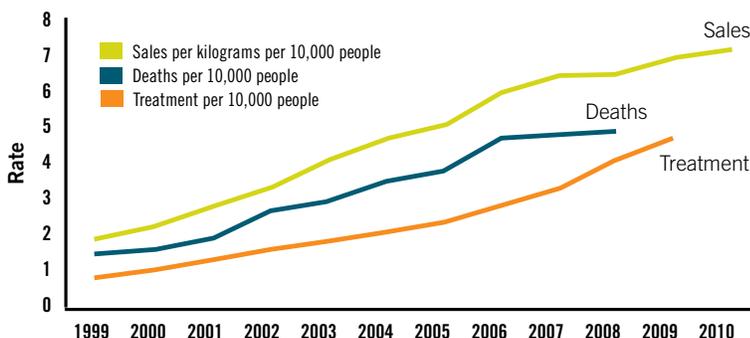
### Prevention

In April 2011, the White House initiated a multiagency response to the opioid crisis. The plan involves: 1) promoting youth, parent, and physician education; 2) encouraging research on trends of PO misuse and effective treatments; 3) developing more efficient methods to monitor prescriptions of opioids; and 4) increasing law enforcement resources that target opioid prescription malpractice.<sup>7</sup>

Efforts are also being made to establish safeguards against over prescription of opioids at the clinical level. Additional training and the use of screening tools designed to help physicians identify patients at risk for

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**Figure 1: Increase in the rates of opioid pain relievers (OPR) overdose deaths, treatment admissions, and kilograms of opioid pain relievers sold in the United States between 1999 and 2010.**



Source: National Vital Statistics System, 1999–2008; Automation of Reports and Consolidated Orders System (ARCOS) of the Drug Enforcement Administration (DEA), 1999–2010; Treatment Episode Data Set, 1999–2009

### THE HAZELDEN EXPERIENCE

#### Comprehensive Opioid Response with Twelve Steps (COR-12)

Comprehensive Opioid Response with Twelve Steps (COR-12) is Hazelden's response to the nation's epidemic of opioid addiction. Hazelden's COR-12 team consists of medical, clinical, and research professionals who's collective goal is to improve the lives of those suffering from opioid addiction. We are applying our mission, vision, values, and the latest scientific evidence to address the specific needs of opioid dependent individuals. This innovative program encompasses the whole spectrum of recovery—from prerecovery, to recovery initiation, to ongoing and lifelong recovery support services. The COR-12 treatment path includes group therapy and lectures that focus on opioid addiction as well as extended, adjunctive medication assisted treatment (MAT) as a means to help people achieve a stable, Twelve Step–based recovery lifestyle and ultimate abstinence from opioids. Components of the MAT plan include the possible use of two medications—buprenorphine/naloxone (Suboxone®) and extended release naltrexone (Vivitrol®)—which are offered under closely supervised care. These medications have been shown to improve the likelihood of abstinence from opioids, boost retention and engagement in treatment, reduce cravings for opioids, and lower relapse rates.<sup>14,17</sup> For additional information please visit [hazelden.org/cor12](http://hazelden.org/cor12).

#### Professionals in Residence Program

Hazelden's Professionals in Residence Program teaches doctors and other health care professionals to recognize and assess substance abuse and dependence, including abuse of prescribed pain medications. For additional information please visit [hazelden.org/pir](http://hazelden.org/pir).

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developing opioid dependence are becoming common and an emphasis is being placed on alternatives to POs for patients who are at increased risk.<sup>8</sup>

Efforts at the community level primarily focus on addressing PO misuse among youth. Community- and school-based prevention programs that enhance life skills and academic performance, improve family relationships, and reduce risky behaviors

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such as substance misuse and conduct problems have shown promise in preventing the misuse of POs. Spoth et al. (2013) examined the long-term effects of three such programs on PO misuse among sixth- and seventh-graders from over 70 schools. The results of the study indicated that membership in the youth prevention programs was associated with significant reductions in PO misuse 6–14 years following program completion.<sup>9</sup>

## Treatment

### Cognitive Behavioral Treatment

Research suggests cognitive-behavioral counseling and close monitoring may deter misuse of POs among those suffering from chronic pain. In a study by Jamison et al. (2010), chronic pain patients were randomly assigned to a standard therapy control condition or an experimental condition where they received monthly urine screens, treatment compliance checks, and motivational counseling. After 6 months patients in the experimental (versus control) group were significantly less likely to self-report PO misuse and have abnormal urine toxicology results.<sup>10</sup>

### Pharmacological Treatments

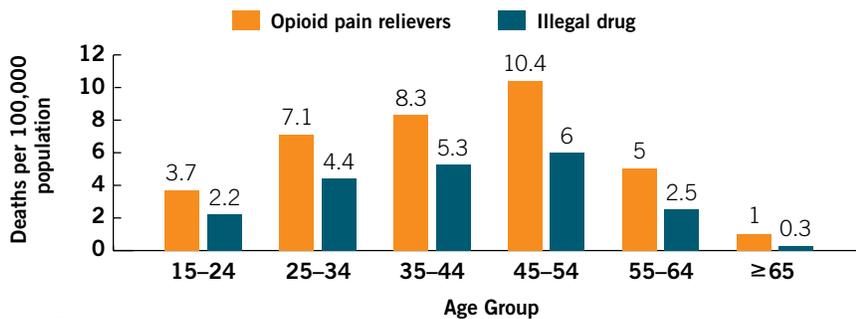
Pharmacotherapies also show promise in the treatment of PO dependence. Findings from clinical research indicate that the partial opioid agonist buprenorphine (Suboxone®, Subutex®) decreases craving and relapse and improves treatment retention across a range of demographics and treatment contexts.<sup>11, 12, 13, 14</sup> The extended-release injectable form of naltrexone (Vivitol®) blocks the pharmacological and psychologically reinforcing effects of opioids and has also shown promise in treating opioid dependence.<sup>15, 16</sup>

In a rigorous study by Sigmon et al. (2013), the efficacy of buprenorphine and naltrexone in treating PO dependence was examined in a randomized double-blind 12-week clinical trial. Seventy PO patients in an outpatient clinic were randomly assigned to 1, 2, or 4 weeks of a buprenorphine tapering regimen that was followed by naltrexone therapy. All patients received standard behavioral therapy throughout the 12-week period. At 12 weeks, patients in the 4-week taper condition were significantly more likely to remain abstinent from opioids and were less likely to drop out of treatment compared to the other groups.<sup>17</sup>

## Summary and Conclusion

While the increasing number of people dependent on POs is disturbing, steps are being made to address the problem. Concerted efforts from clinicians, researchers, policy makers, and community leaders are enhancing clinical awareness, improving diagnostic accuracy, and facilitating the alignment of clinical and community resources to effectively prevent and treat PO dependence. It is important to note that pain medications are used appropriately by millions of Americans with legitimate needs; however, the consequences of PO misuse warrant extra care in their prescription and use.

Figure 2: Deaths from Opioid Pain Relievers Exceed Those of All Illegal Drugs



Source: CDC, Morbidity and Mortality Report, 60 [43]: 1489, 2011

[hazelden.org](http://hazelden.org)

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The Butler Center for Research informs and improves recovery services and produces research that benefits the field of addiction treatment. We are dedicated to conducting clinical research, collaborating with external researchers, and communicating scientific findings.

Justin Anker, Ph.D., Research Scientist

If you have questions, or would like to request copies of Research Update, please call 800-257-7800, ext. 4405, email [butlerresearch@hazelden.org](mailto:butlerresearch@hazelden.org), or write BC 4, P.O. Box 11, Center City, MN 55012-0011.

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