

NEW SYSTEMATIC REVIEW OUTLINES PROMISING STRATEGIES TO PREVENT PRESCRIBED OPIOID ABUSE, OVERDOSES

by Uyen Vu

The opioid epidemic continues to grow unabated across swaths of North America. In Canada, 3,987 people died from opioid-related overdoses in 2017, far surpassing the 2016 figure of 2,861 (itself a record at the time). In the U.S., overdose deaths grew five-fold between 1999 and 2016, resulting in 200,000 overdose deaths involving prescription opioids during that period.

Although a growing share of this death toll can be attributed to the proliferation in recent years of highly potent synthetic opioids (e.g., fentanyl), the misuse and abuse of prescribed opioids has been identified as a root cause of this crisis and continues to be an important cause of opioid overdose deaths.

Since the beginning of the crisis in the late 1990s, multiple efforts have been undertaken by health and law enforcement authorities, medical clinics, health associations, community agencies, and other bodies to get on top of this complex problem. While many have not produced the hoped-for effects, some have.

A new systematic review by the Institute for Work & Health (IWH) now provides a comprehensive assessment of the strategies that have been tried to promote the appropriate use of opioid prescriptions, reduce their misuse and abuse, and prevent overdose deaths.

The systematic review, which covers the period between the late 1990s and 2015, identifies eight promising strategies: edu-

Research synthesis by the Institute for Work & Health examines a broad array of programs and policies that can work in Canada.

cation aimed at health professionals and/or opioid users, clinical practice changes, naloxone distribution, prescription monitoring programs, regulatory changes, collaborations across different disciplines and professions, public health campaigns, and opioid substitution treatments.

Above all, the programs that worked most effectively were those that combined multiple approaches, according to the review, which was published in July 2018 as an open access paper in the *Canadian Journal of Pain* (doi: 10.1080/24740527.2018.1479842).

"Many of the studies we found looked at interventions that combined more than one type of strategy and examined many different outcomes," says Emma Irvin, IWH Director of Research Operations and head of the Institute's systematic review program. "We see this as a good sign of wide recognition that this is a complex public health problem, one that should involve multi-pronged strategies that cut across the system."

A comprehensive synthesis

Systematic reviews conducted

elsewhere have examined the effectiveness of specific strategies, such as medical treatments for opioid use disorders, supervised consumption sites, and community naloxone distribution programs, among others.

In contrast, the IWH review aimed for a more comprehensive synthesis. It set out to include all existing strategies that could be implemented in North America, the epicentre of the opioid crisis. (To that end, the review included only studies implemented and evaluated in North America, Europe, and Australia/New Zealand.) Three outcomes were considered: reducing overdoses and fatalities; encouraging appropriate prescribing of opioids; and preventing misuse and abuse of opioid prescriptions. The review also noted unintended consequences or adverse effects when any were described.

In recognition that many studies would not be published in peer-reviewed journals, the review team also looked beyond academic journals and included the grey literature (i.e., conference proceedings, white papers,

reports and the like). It focused on content aimed at health professionals and health regulators, governments, public health and health promotion agencies, prevention and treatment organizations, workers' compensation boards, private insurance companies, and law enforcement agencies. Due to limited time and resources to conduct the review, the team excluded research produced by military organizations, pharmaceutical companies or for-profit organizations.

Eight promising strategies

The review team found 65 studies, describing 66 interventions or programs. Each of the studies is worth a read by anyone developing a program to prevent the misuse and abuse of prescription opioids. Each outlines a unique approach reflecting a specific context, involving particular sets of system actors, and integrating the distinct

needs and available resources of the affected communities. Not surprisingly, the review revealed considerable diversity even within each of the following categories of promising strategies.

Education: These strategies involved formal teaching to improve knowledge or training to impart specific skills. Examples of educational strategies included workshops or continuing medical education aimed at health professionals on managing chronic pain or safe opioid prescribing. They also included community-based education aimed at raising awareness among pain patients and those who use drugs about the risks of opioids. Of the 66 interventions examined, more than half included an education strategy.

Clinical practice: These strategies involved changes in how health care was delivered, such

as the implementation of recommendations from clinical practice guidelines, the adoption of a tool to improve opioid prescribing, the introduction of urine drug tests, or the implementation of disease management programs. As with education, about half of the intervention programs included a clinical practice change.

Naloxone distribution: Naloxone is a prescribed medication that reverses the effects of opioids in the brain and restores breathing. In this review, only four studies found a large positive effect for an intervention on reducing opioid overdoses and deaths; in three of these four studies, the intervention involved some type of naloxone distribution—for example, with the use of collaborative practice agreements between pharmacies and prescribers, or via programs that train individuals who use opioids on the use of take-home naloxone kits.



PROFESSIONAL LIABILITY INSURANCE PROGRAM FOR OOHNA MEMBERS

Contact your Marsh Canada Limited licensed insurance broker:

ANNAKAY JOHN, CIP: 416 349 4649

Toll-Free: 1 844 493 4991 | annakay.john@marsh.com

SOLUTIONS...DEFINED, DESIGNED, AND DELIVERED.



Prescription monitoring programs: Prescription monitoring programs involve the use of electronic databases meant to help pharmacists detect patients who fill multiple prescriptions of the same drug from many different providers, engage in “doctor shopping” to find willing prescribers, or divert prescribed opioids to the illicit street market.

Regulations: Many of the interventions included in the review involved some kind of regulatory change. One example was a state requirement that emergency room doctors check the prescription monitoring program before giving opioid prescriptions to ER patients; another was a regulatory change to allow pharmacists to dispense naloxone on a doctor’s standing order.

Collaborations: Ten of the included interventions involved collaboration across disciplinary or professional groups. For example, in a health department program to treat people with opioid use disorder with buprenorphine, patients were monitored for an average of 20 weeks by a physician and pharmacist pair; the goal of the collaboration was to reduce the costs involved when maintenance is done only by physicians.

Public health: Public health campaigns were included in five of the studies. One example was a multi-pronged public health program that included prescribing guidelines, one-on-one educational visits with prescribers, timely dissemination of prescribing and mortality data to local media, public service announcement broadcasts, town halls and stakeholder meetings.

Opioid substitution treatments: Opioid substitution therapies involved the use of prescribed

methadone or buprenorphine for opioid use disorder and dependence. This type of strategy was usually combined with clinical or educational strategies. One example in a First Nations community integrated buprenorphine-naloxone substitution with daily follow-up with community-trained health aides. This included group and individual sessions by First Nations counselors and healers that focused on addiction recovery, relapse prevention, understanding early-life trauma, grief counselling and traditional healing teachings.

The systematic review also highlighted several unintended consequences of implemented strategies, which were reported in 19 of the 65 studies. Examples of unintended consequences for healthcare providers included additional burden on staffing and workload. For the target population, examples included patients not receiving necessary prescriptions, increased stigma and police harassment due to the carrying of naloxone kits, and increased use of and overdoses on other substances such as morphine, hydromorphone and heroin.

The IWH team is now working on a follow-up synthesis of the studies that came out after 2015, the cut-off point of this systematic review. “The team is encouraged that many of the promising strategies in this review have already been implemented in recent years,” says Irvin. “As communities across Canada develop responses to this still-growing public health crisis, the IWH systematic review team hopes decision-makers will consult this synthesis—and the studies upon which it is based—when planning and implementing interventions.”

Uyen Vu is the editor of the IWH quarterly *At Work*. E: UVu@iwh.on.ca

The Institute for Work & Health is a not-for-profit, independent research organization focusing on work-related injury and disability prevention. To sign up for news

on Institute research, tools and projects, please go to www.iwh.on.ca/subscribe.

Reference

Furlan, A.D., Carnide, N., Irvin, E., Van Eerd, D., Munhall, C., Kim, J., Meng Fei Li, C., Hamad, A., Mahood, Q., and MacDonald, S. (2018). A systematic review of strategies to improve appropriate use of opioids and to reduce opioid use disorder and deaths from prescription opioids. *Canadian Journal, of Pain*, Vol. 2, Issue 1.