Over the past 25 years, the United States has experienced a dramatic increase in deaths from opioid overdose, opioid use disorder, and other harms related to the prescribing of opioid medications for pain management. Drug overdose—mostly involving opioids—is now the leading cause of unintentional injury death in the United States, an epidemic affecting individuals, families, communities, and society at large.

This opioid crisis lies at the intersection of two substantial public health challenges: containing the rising toll of opioid-related harms, and reducing the burden of suffering for the tens of millions of people suffering from pain. Finding the ideal balance is a challenging task.

A report from the National Academies of Sciences, Engineering, and Medicine outlines strategies for addressing the opioid epidemic, offering a constellation of policies, interventions, and tools to help reduce or contain opioid-related harms while meeting the needs of people with pain.

Establish comprehensive pain education materials and curricula for health care providers.

RECOMMENDATION 5-2

Why?

Pain relief is one of the primary responsibilities of the practice of medicine. Yet the breadth and depth of educational efforts—in undergraduate, graduate, and continuing education settings—to train health professionals have often fallen short of their goals for developing appropriate clinical competencies in pain management. Any meaningful effort to improve pain management will require a fundamental paradigm shift in the nation’s approach to mandating pain-related medical education.

How?

State medical schools and other health professional schools should coordinate with their state licensing boards for health professionals (e.g., physicians, nurses, dentists, pharmacists), the National Institutes of Health’s Pain Consortium, the U.S. Food and Drug Administration (FDA), the U.S. Centers for Disease Control and Prevention (CDC), and the U.S. Drug Enforcement Administration to develop an evidence-based national approach to pain education encompassing pharmacologic and nonpharmacologic treatments and educational materials on opioid prescribing.

Evaluate the impact of patient and public education about opioids on promoting safe and effective pain management.

RECOMMENDATION 5-5

Why?

Along with changes to provider education is the need for major change in patient expectations in the treatment and management of chronic pain. Patients may expect to experience little or no pain once a provider has been informed of pain,
and providers may feel pressured to provide opioids for fear of poor performance evaluation. Patients lack information about pain management and opioids, suggesting the need for education. Information about the risks and benefits of opioids and alternative strategies for managing pain is insufficient. Current efforts have not been evaluated, and their impact is unclear.

**How?**

The nation’s public health leadership, including the surgeon general, the CDC, and heads of major foundations and professional organizations, should convene a body of experts in communication and in pain and OUD to evaluate the likely impact (and cost) of an education program designed to raise awareness among patients with pain and the general public about the risks and benefits of prescription opioids and to promote safe and effective pain management.

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**Expand treatment for opioid use disorder and improve education in treatment of opioid use disorder for health care providers.**

**RECOMMENDATION 5-6**

**RECOMMENDATION 5-7**

**Why?**

The enormity of the opioid crisis requires an immediate, massive expansion of treatment capacity to provide evidence-based treatment and recovery to millions of individuals. Aside from its immediate benefits to people with opioid use disorder (OUD), a strategy of increasing access to and use of treatment for OUD can help lower the number of people misusing opioids and thus lower the risk of public health harms.

Insufficient numbers of providers for treating OUD represent a significant barrier to the availability of medication-assisted treatment (MAT), the central component of evidence-based treatment for OUD.

To be able to prescribe buprenorphine for OUD, health care providers must obtain a waiver; however, state-level analysis shows that significant gaps exist between the need for MAT and capacity of providers to be able to apply it. Recent steps to expand the number of waivered providers include increasing the upper limit of patients that can be treated by waivered physicians, expanding the type of prescribers permitted to be waivered, and integrating the required training into the health care professional educational curriculum.

**How?**

States, with assistance from relevant federal agencies, particularly the Substance Abuse and Mental Health Services Administration (SAMHSA), should provide universal access to evidence-based treatment for OUD, including use of medication, in a variety of settings, including hospitals, criminal justice settings, and substance use treatment programs. Efforts to this end should be carried out with particular intensity in communities with a high burden of OUD. State licensing bodies should require training in treatment for OUD for all licensed substance use disorder treatment facilities and providers.

Schools for health professional education, professional societies, and state licensing boards should require and provide basic training in the treatment of OUD for health care providers, including but not limited to physicians, nurses, pharmacists, dentists, physician assistants, psychologists, and social workers.
Leverage prescribers and pharmacists to help address opioid use disorder.

**RECOMMENDATION 5-9**

**Why?**
Naloxone is safe and effective for reversing overdoses and can easily be administered by bystanders. It is not a controlled substance and has no abuse potential. Overdose education and naloxone distribution programs are designed to train people in the community who are most likely to witness an overdose—people who use drugs and their friends and family—and these programs can be conducted within the community or health systems, by health care providers and pharmacists. Health care professionals can identify patients who are at risk of OUD or overdose, and can prescribe naloxone for patients who are taking opioids. Pharmacists are also in a good position to train patients and their families on the use of naloxone kits, but availability of the kits is not universal, and attitudes toward their use vary. Many states allow pharmacists to distribute naloxone over the counter without a prescription.

**How?**
State medical and pharmacy boards should educate and train their members in recognizing and counseling patients who are at risk for OUD and/or overdose, and encourage providers and pharmacists to offer naloxone when an opioid is prescribed to these patients or when a patient seeks treatment for overdose or other opioid-related issues.

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**PRESCRIPTION AND ILLICIT OPIOID USE**

The prescription and illicit opioid epidemics are intertwined.

One of the consequences of increased prescribing of opioids has been increased use of illicit opioids, such as heroin. In addition to prescription opioids serving as a strong risk factor for heroin use, market forces and efforts designed to reduce prescription opioid-related harms, such as opioids with abuse-deterrent formulations, may be contributing to increased heroin use. The small but growing population of people who use heroin compared to the large population of people who use prescription opioids points to an unprecedented potential market for heroin as well as other illicit opioids.

**Consider the potential effects on illicit markets of policies and programs for prescription opioids.**

**RECOMMENDATION 4-1**

**How?**
In designing and implementing policies and programs pertaining to prescribing of, access to, and use of prescription opioids, the FDA, other agencies within the U.S. Department of Health and Human Services, state agencies, and other stakeholders should consider the potential effects of these interventions on illicit markets—including both the diversion of prescription opioids from lawful sources and the effect of increased demand for illegal opioids such as heroin among users of prescription opioids—and take appropriate steps to mitigate those effects.
ABOUT OPIOID PRESCRIBING

Opioids are widely prescribed in a variety of settings for treatment of both acute and chronic pain. However, data are lacking on the longer-term benefits of opioids in the management of chronic noncancer pain, and long-term use of opioids increases risk of a number of adverse outcomes including OUD, overdose, and other adverse effects. No widely accepted guidelines recommend the use of opioids as a first-line therapy for management of chronic noncancer pain. Providers also face questions about how to manage patients who are already taking opioids for pain conditions, some of whom have been maintained chronically on them for months to years, and how best to re-evaluate their continued use and review the risks and benefits of this type of therapy.

Medical situations in which opioids might be prescribed include: (1) acute pain management, such as after injury; (2) management of pain in the context of cancer or the end of life; and (3) management of chronic pain not due to a malignancy. Federal, state, and professional organizations have issued clinical guidelines for the use of opioids (e.g., initiation, dosing, monitoring, discontinuation) in each of these situations. Notably, CDC published its Guideline for Prescribing Opioids for Chronic Pain in 2016, and in 2017, the Federation of State Medical Boards revised its “model policy” for chronic use of opioid analgesics for use by state medical boards seeking to evaluate physician management of patients with pain. Prescribing guidelines may be able to improve provider prescribing behavior but may be most effective when accompanied by provider education and other measures designed to facilitate implementation.

Reducing prescribing of opioids for pain is at once a tool for reducing supply and demand for using or misusing these drugs. Reduced prescribing can affect supply by limiting the indications for prescribing them and reduce demand by broadening the range of nonopioid and nonpharmacological therapies available to patients. While no single entity or organization currently has overall jurisdiction for the development of pain management guidelines, clinical pain competencies, or opioid prescribing practices, a range of formal and informal policies, interventions, and tools can be used to shape, guide, and regulate the prescribing practices.

To read the full report and view related resources, please visit nationalacademies.org/OpioidStudy

Conclusion

Years of sustained and coordinated effort by multiple stakeholders and sectors will be required to contain the current opioid epidemic and ameliorate its harmful effects on society while balancing the needs of the millions of individuals suffering from pain. Health professional organizations have a crucial role to play in these efforts.