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Strategies and policies to address the opioid epidemic: A case study of Ohio

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Abstract

Objective—To describe the strategies and policies implemented in Ohio to improve opioid safety and to discuss the role that pharmacists can play in implementing, promoting, and enhancing the effectiveness of these policies.

Setting—Ohio has the fifth highest rate of drug overdose deaths (24.6 deaths per 100,000) in the United States. Unintentional drug overdose has become the leading cause of injury-related death in Ohio. In 2015, there were 3050 overdose deaths in Ohio, and in 2014 there were an estimated 12,847 overdose events reversed by emergency medical services with naloxone.

Practice description—Not applicable.

Practice policy innovation—In 2011, the Governor's Cabinet Opiate Action Team was created to implement a multifaceted strategy, in part (1) to promote the responsible use of opioids, (2) to reduce the supply of opioids, and (3) to support overdose prevention and expand access to naloxone. Innovations to assist these goals include the development of Ohio guidelines on the responsible use of opioids, mandatory use of Ohio's prescription drug monitoring program, closing pill mills, promotion of drug take-back programs and increased access to naloxone and public health campaigns.

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Evaluation—Not applicable.

Results—Since the development of the Governor's Cabinet Opiate Action Team, there were 81 million fewer doses of opioids dispensed to Ohio patients in 2015 compared with 782 million doses dispensed in 2011. As such, the proportion of unintentional drug overdose deaths involving prescription opioids has reduced from 45% in 2011 to 22% in 2015.

Conclusion—Strong political support was crucial in Ohio to facilitate the rapid implementation opioid overdose prevention programs and the promotion of public awareness campaigns. However, the misuse and abuse of prescription opioids are complex problems requiring a comprehensive and multifaceted approach. Pharmacists are identified as a crucial component of the state strategy to addressing opioid abuse by promoting responsible prescribing and adopting prevention practices.

Objective and setting

Ohio has the fifth highest rate of drug overdose deaths (24.6 deaths per 100,000) in the United States.[1,2] Unintentional drug overdose has become the leading cause of injury-related death in Ohio.[3] In 2015, there were 3050 overdose deaths in Ohio,[3] and in 2014 there were an estimated 12,847 overdose events reversed by emergency medical services with naloxone.[4] Naloxone is an opioid antagonist that can reverse an opioid overdose and prevent a fatality. The high utilization of naloxone highlights the seriousness of the opioid epidemic, as this would equate to an estimated 43 fatal and nonfatal overdoses occurring every day in Ohio. The magnitude of the opioid epidemic has had a significant effect on the health care system and the community at large. Recently, Ohio has implemented numerous policies and enhanced the role of pharmacists and other health care professionals to address the opioid epidemic. The objective of this article is to describe the strategies and policies implemented in Ohio to improve opioid safety and to discuss the role that pharmacists can play in implementing, promoting, and enhancing the effectiveness of these policies.

Practice policy innovation

In response to the growing opioid epidemic in Ohio, Governor John R. Kasich has put in place one of the nation's most aggressive and comprehensive approaches to address opioid use disorder and overdose deaths, including a strong focus on preventing the nonmedical use of prescription drugs. In 2011, he created the Governor's Cabinet Opiate Action Team (GCOAT).[5] GCOAT is comprised of several state agencies, including the Ohio Board of Pharmacy, that have implemented a multifaceted strategy: (1) to promote the responsible use of opioids, (2) to reduce the supply of opioids, and (3) to support overdose prevention and expand access to naloxone. What follows is an overview of activities occurring in Ohio.[6]

Promoting the responsible use of opioids

Since its development, the GCOAT has released three guidelines on the responsible use of opioids. These guidelines include the Emergency Department/Acute Care Facility Opioid Prescribing Guidelines, the Opioid Prescribing Guidelines for Treatment of Chronic Pain, and the Opioid Prescribing Guidelines for Treatment of Acute Pain.[5] All these guidelines are designed to urge prescribers to consider nonopioid therapies first and to encourage

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prescribers to check Ohio's prescription drug monitoring program (PDMP) before prescribing opioids.

In addition, these guidelines recommend 80-mg morphine equivalency dosing (MED) as a "trigger threshold" for the prescriber to "push pause" and re-evaluate the treatment. A consensus process with professional licensing boards, state and federal agencies, professional associations, and practicing pain and palliative care professionals chose 80 mg because research suggests that chronic, non–cancer pain patients receiving 50–99 mg MED a day have a 3.7-fold increase in overdose risk compared with those taking 1–20 mg MED a day.[7] Furthermore, there were concerns about the increased risk of opioid-related side effects at higher dosages and the limited evidence on the effectiveness of opioids for long-term chronic, non–cancer pain patients.[8] Although some patients may have medical conditions requiring higher doses of opioids, these guidelines offer pharmacists and other health care professionals standardized recommendations on the role of opioids in pain management.

In addition to these guidelines, Ohio House Bill 341 was passed in 2014, which requires Ohio prescribers to obtain an Ohio Automated Rx Reporting System (OARRS, Ohio's PDMP) report before prescribing or personally furnishing an opioid.[9,10] Personally furnishing describes the action of a "prescriber who provides drugs to a patient for the a patient's personal use."[10] The bill states that a mandatory OARRS check must be conducted before initial prescribing or personally furnishing opioids and at least 90 days after the initial report is requested.[9]

Reducing the supply of opioids

To further reduce the supply of opioids in the community, Ohio strengthened its laws to prevent "pill mills." "Pill mills" is a term for clinics that prescribe or dispense opioids without any legitimate purposes or in a manner that is inconsistent with standard medical practice. House Bill 93 was passed in 2011; it requires the Ohio Board of Pharmacy to license pain clinics, and it prevents convicted felons from owning or operating pain clinics.[10] Between 2011 and 2014, the State Medical Board of Ohio and the Ohio Board of Pharmacy revoked the licenses of 61 doctors and 15 pharmacists for violations involving improper prescribing or dispensing of prescription drugs, such as opioids and benzodiazepines.[11] It is unknown how revoking these medical professionals' licenses has affected the medical care of their patients; however, it is likely that some challenges were encountered in reassessing these patients' level of pain and appropriate use of opioids. For patients in rural areas, the loss of a doctor or pharmacist might mean that they have to travel longer distances for medical care and they may encounter stigma for having been patients of such health care professionals.

In addition, House Bill 93 required the Ohio Board of Pharmacy, Ohio Attorney General, and the Ohio Department of Mental Health and Addiction Services to develop a drug take-back program. Since this time, the Ohio Department of Health has worked with the Ohio Attorney General and Drug Free Action Alliance to provide 65 drug drop boxes to local law enforcement agencies.[12] Given that the primary purpose of drug drop boxes is to ensure safe disposal of unused medications, it is unclear the extent to which safe disposal prevents the initiation and diversion of opioids. However, pharmacists should continue to support these

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initiatives, as they serve as an important mechanism to educate the public about the dangers of unused medications.[13]

Ohio has also focused on injured workers through the Ohio Bureau of Workers' Compensation (BWC). Data from 2008–2009 showed that patients with workers' compensation in Ohio were, on average, on a higher daily MED compared with other states (57.7 vs. 47.8 mg).[14] As such, in 2011 the Ohio BWC introduced a closed prescription drug formulary to reduce the supply of opioids by restricting the quantity and type of opioids being reimbursed for certain conditions. During 2011–2015, it was reported that the Ohio BWC observed a 39.8% reduction in opioid prescriptions.[15] In 2016, the Ohio BWC also announced plans to no longer reimburse opioid prescriptions written by physicians who fail to use best practices, such as the development of an individualized treatment plan, risk assessment, and monitoring.[16]

Overdose prevention and access to naloxone

To reduce opioid-related overdose fatalities, Ohio increased access to naloxone by first responders and the general public.[17] In 2015, Ohio approved pharmacists to dispense naloxone without a prescription in accordance with a physician-approved protocol.[18] As of November 2016, 1380 of 2123 (65%) community pharmacies are registered to dispense naloxone without a prescription in Ohio.[19,20] In addition, in the 2016–2017 Ohio budget, $500,000 per year has been allocated to purchase naloxone for law enforcement and first responders through Ohio's local health departments.[21]

Although emergency responders are able to administer naloxone, expansion of naloxone to the general public is critical for several reasons. First, some people may be afraid to call 9-1-1 in response to an overdose. Ohio only recently passed a Good Samaritan law in 2016 that provides immunity from minor drug possession charges for people who report overdoses[22]; however, these laws do not exist in every state.[23] In addition, removing delays in the administration of naloxone is important for successful recovery. As such, pharmacists should continue to increase access to naloxone to facilitate timely overdose reversal.

In addition, the ODH has implemented educational initiatives to increase the public's awareness of the importance of naloxone. This includes their recent “Stop overdose. Carry naloxone” campaign (Figure 1), which educates the public on opioid use disorder and shares stories from individuals about the dangers of nonmedical opioid use,[24] and Project DAWN (Deaths Avoided with Naloxone), an opioid overdose prevention program (OOPP) in which the public is educated and provided naloxone to prevent overdoses.[25] As of October 2016, there were 57 Project DAWN sites across Ohio, and the Ohio Department of Health is currently in the process of evaluating this program.[25] Pharmacists are well placed to educate the public about such initiatives.

Pharmacists' role

Pharmacists have a unique role as they are on the front lines of the opioid drug epidemic and are often aware of patients who are receiving a high dose or supply of prescription opioids or are potentially doctor shopping. The American Pharmacists Association has previously

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identified pharmacists' role in addressing nonmedical opioid use, opioid use disorder, and diversion, which include: (1) identifying potential opioid use disorder by evaluating patients and prescriptions; (2) managing the risk of opioid misuse by establishing policies related to opioids that address a variety of situations, assessing patient risk for opioid misuse, and discussing issues relating to a patient's pain management in the context of a medication therapy management visit; and (3) addressing confirmed opioid use disorder and diversion by contacting relevant parties or referring the patient to the relevant provider.[26] In addition, GCOAT has produced a Health Resource Toolkit for addressing opioid use disorder that lists specific recommendations that involve pharmacists aligned with Ohio's initiatives (Table 1).[27]

Furthermore, Ohio has strengthened the role of pharmacists in 2015 through House Bill 188, which allows pharmacists to enter into consult agreements with physicians in order to manage drug therapy for patients.[28] The law became effective in 2016; it is a critical regulatory-level intervention to allow pharmacists to take a more proactive role in pain management. The following sections are examples of pharmacists' roles in responding to the opioid epidemic that have been implemented in Ohio and aligned with the state initiatives.

Identifying potential opioid use disorder

The use of PDMPs remains one of the best ways for pharmacists to identify people who are potentially at high risk for opioid use disorder. Nationally, PDMPs have been associated with an average reduction of 1.12 opioid-related overdose deaths per 100,000 population, the year after implementation.[29] Ohio was an early adopter of mandating the use of a comprehensive PDMP. Pharmacists in Ohio are required to review a patient's PDMP history before dispensing a new controlled substance prescription.[30] The rule also requires pharmacists to review a patient's report every 12 months and to query Ohio's PDMP if any red flags are present. Since the implementation of Ohio's PDMP, Ohio has observed reductions in opioid prescribing[31,32] and doctor shopping.[32,33] With the mandatory use of such a program being successful in Ohio, pharmacists should advocate for similar legislation in their own states.

To further increase the use of Ohio's PDMP among pharmacists and other health care professionals, the Ohio Board of Pharmacy has engaged in a 2-pronged strategy: workflow integration and regulatory mandates. While Ohio has seen increased use of its PDMP, qualitative reports from the health care community reported that it could be improved with workflow integration, as it is currently accessed through a separate program and not integrated into dispensing software. As such in 2015, Governor Kasich announced an investment of up to $1.5 million a year to integrate Ohio's PDMP directly into electronic medical records and pharmacy dispensing systems across the state.[34]

Strategies to address opioid use disorder

Pharmacists are crucial for both regulating the supply of opioids and improving access to naloxone to reduce opioid-related overdoses. To ensure the responsible supply of opioids, the Ohio Board of Pharmacy developed a campaign for pharmacists to educate them on the importance of corresponding responsibility, entitled “Sometimes We Just Have to Say No”

(Figure 2).[30] The campaign includes a 1-page sheet for patients that gives an overview of when prescriptions are not considered valid, explains a pharmacist's corresponding responsibility under the law, and provides a telephone number where patients and families can locate opioid use disorder treatment programs. Such tools allow pharmacists to engage in potentially difficult conversations with patients.

Drug take-back

Pharmacies have already had a significant role in promoting the Drug Enforcement Administration Drug Take-Back days over the years. However in 2014, the Drug Enforcement Administration amended its rules to allow other parties to become permanently authorized collectors, such as retail pharmacies.[35] Pharmacies are a convenient and suitable location to offer these much-needed services in many communities. Drug drop boxes must be secured and located in the immediate proximity of the pharmacy area in which an employee is present.[35] There are now >50 registered retail pharmacy collectors in Ohio.[36]

Results and discussion

Ohio has implemented many policies and made significant regulatory changes to address the opioid epidemic, most notably by decreasing the number of opioids dispensed and increasing access to naloxone. Since the development of GCOAT, the number of opioid doses dispensed has reduced to 701 million in 2015 compared with 782 million in 2011.[3] In addition, the proportion of unintentional drug overdose deaths involving prescription opioids has reduced from 45% in 2011 to 22% in 2015.[3] Furthermore, the number of individuals “doctor shopping” for opioids and other controlled substances decreased from 2205 in 2011 to 720 in 2015.[3] “Doctor shopping” was defined as an individual receiving a prescription from 5 or more prescribers in 1 calendar month. These promising figures reflect the combined efforts of state and local agencies working collaboratively with stakeholders from the health care community to address the overprescribing of opioids.

However, during this same period, the state has continued to see increases in unintentional drug overdose fatalities. In 2015, 3050 Ohio residents died from an unintentional drug overdose, the highest number on record.[3] One hypothesis involves the increased distribution of illicit fentanyl in Ohio. In 2015, nearly 40% of unintentional drug overdose deaths involved fentanyl, whereas in 2011 fentanyl was involved in less than 5% of overdoses.[3] Over the same period, the number of fentanyl drug reports based on law enforcement drug seizures increased in Ohio from 110 in 2013 to 3882 in 2015.[3] The majority of these fentanyl drug reports are from those illegally produced and trafficked, not diverted pharmaceutical fentanyl. Furthermore, illicit fentanyl has been combined with other drugs, including heroin, without the user's knowledge, increasing the risk of overdose and overdose death. Of the 1155 fentanyl-related unintentional overdose deaths in Ohio in 2015, only 30 deaths had a fentanyl prescription within 90 days of death.[3]

Another hypothesis for the increase in overdose fatalities is the limited access to medication-assisted treatment. Treatment providers have reported a lack of buprenorphine providers within a reasonable geographic distance, particularly in rural areas.[37] Plans to increase the number of methadone clinics were proposed in Kasich's 2016 mid-biennium review.[6] The

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administration proposes a waiver to the current statutory requirement that a provider be certified in Ohio for 2 years before obtaining a methadone treatment license. Although progress has been slow to increase access to medication-assisted treatment, and much work is still needed, this proposal may encourage organizations with experience in other states to open in Ohio. Such initiatives aim to increase the availability of treatment options while ensuring that these new clinics are under state regulatory control.[6]

Additional concerns have also been raised with increasing the access to naloxone and the implementation of OOPPs.[25,38] Stigma-related barriers have been identified from health care professionals, first responders, and mental health and recovery board members.[38] In such instances, some staff perceive naloxone as either a safety net or as an enabler for opioid use. Barriers related to costs were also identified; they included the price of naloxone, lack of reimbursement for the non-medication items in overdose prevention kits, and salary support for medical staff time.[38] Additional efforts to increase access to naloxone should include interventions to reduce stigma associated with naloxone use. Pharmacists' strong pharmacotherapy knowledge places them in an ideal position to educate other health care workers and the public about substance use disorder and the role of naloxone.

Overall, numerous initiatives have been implemented in Ohio to combat the opioid epidemic. Many of these initiatives target a variety of populations, including people who use opioids nonmedically, providers who overprescribe opioids, and the general public. Such initiatives highlight the numerous factors contributing to the opioid epidemic and the importance of multiple stakeholder involvement, including health care professionals and regulatory and executive bodies. Strong political support was crucial in Ohio to facilitate the rapid implementation of OOPPs and the promotion of public awareness campaigns. This has also provided support for legislative changes toward mandatory PDMPs, shutting down of pill mills, and increasing pharmacy's role in naloxone distribution and drug take-back programs. Because of such initiatives, pharmacists are now integral to Ohio's multifaceted strategy to combat the opioid epidemic.

Conclusion

Laws and regulatory changes alone are insufficient to address the crisis of opioid overdose deaths in the United States. The nonmedical use of prescription opioids is a complex problem requiring a comprehensive and multifaceted approach. Pharmacists are a crucial component of Ohio's strategy to address the opioid epidemic by promoting responsible prescribing and adopting prevention practices. In addition, with pharmacists' unique expertise in the pharmacology of opioids and risk factors for opioid use disorder, they are well positioned to provide education to patients and the public about how to prevent overdose deaths and to expand the awareness of treatment and recovery resources.

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Key Points

Background

- Ohio has the fifth highest rate of drug overdose deaths in the United States.
- Unintentional drug overdose has become the leading cause of injury-related death in Ohio.
- Ohio has implemented a comprehensive approach to address opioid use disorder and overdose deaths.

Findings

- The use of prescription drug monitoring programs remains one of the best ways for pharmacists to identify people who are potentially at high risk of opioid use disorder.
- The campaign entitled "Sometimes We Just Have to Say No" allows pharmacists to engage in potentially difficult conversations with patients.
- To increase naloxone distribution to first responders, efforts should also focus on reducing stigma associated with naloxone use.
- Costs for staff time and nonmedication items should also be included in efforts to increase naloxone distribution.

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Figure 1.
"Stop overdoses. Carry naloxone" campaign.

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Figure 2.
"Sometimes We Just Have to Say No" campaign.

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Table 1

Strategies in the health resource toolkit for addressing nonmedical opioid use that includes pharmacists[a]

Strategy
Prevent overdose deaths
Encourage providers, persons at high risk, family members, and others to learn how to prevent and manage opioid overdose.
Ensure ready access to naloxone.
Provide opportunities for the disposal of unwanted or expired medication.
Promote responsible prescribing
Promote the use of the Ohio Automated Rx Reporting System (OARRS) among prescribers and pharmacists.
Promote the adoption of opioid prescribing guidelines in your community.
Adopt promising prevention practices
Screen and counsel adolescents and upper elementary grades students for substance use.
Share educational resources to help prevent the misuse of prescription medications.
Host drug take-back events.
Develop community coalitions and youth-led efforts.
Develop culturally relevant health communications.
Expand awareness of treatment/recovery resources
Increase awareness of Medicaid eligibility criteria.
Increase awareness and purpose of medication-assisted treatment.

[a]Ohio Department of Mental Health and Addiction Services. Toolkit for addressing opioid abuse.[27]