

The Opioid Crisis and Future Suggestions to Curb The Epidemic

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SUMMARY

As the toll of lives lost to opioid addiction continues to rise, cities have begun declaring public health emergencies, thus highlighting the urgent need for serious intervention and resource allocation to aid in efficient preventative planning. Given the severity of the opioid epidemic, the public health sphere has increasingly shifted focus to address the crisis. The most prevalent North American policies are summarized in this article.

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Introduction

Purdue Pharmaceutical's deceptive marketing of OxyContin lies at the centre of the opioid crisis. In 1995, the drug was approved by the Food and Drug Administration (FDA) and was promoted as a non-addictive alternative for chronic pain (Hirsch, 2017). OxyContin's aggressive marketing and widespread availability was correlated with a significant rise in addiction and misuse, making it the most widely used narcotic in the United States in 2004 (Van Zee, 2009). This article explores the many dimensions of the opioid crisis, delving into the history of Purdue Pharmaceutical's involvement, the subsequent declarations of medical emergencies, and implemented policies to combat the crisis.

Despite Purdue Pharmaceutical's awareness of OxyContin's potential for abuse, the company intentionally downplayed addiction risks when communicating with the healthcare system and the public. The company misrepresented the risk as less than 1%, creating a perception of OxyContin as a low-risk medication; the actual risk of addiction in the target market of patients with chronic pain can be up to 50% (Højsted & Sjøgren, 2007).

Although Purdue Pharmaceuticals pleaded guilty in federal court in 2007, the damage had already been inflicted and the opioid crisis had escalated beyond control (The role of Purdue Pharma, 2020). As the toll of lives lost to opioid addiction continued to rise, cities began declaring public health emergencies, highlighting the urgent need for serious intervention and resource allocation to aid in efficient preventative planning.

Current Policies

Given the severity of the opioid epidemic, the public health sphere has increasingly shifted to address the crisis. The most prevalent North American policies are summarized below.

Prescription Drug Monitoring Programs (PDMPs/PMPs)

PDMPs, adopted by 49 American states and 5 Canadian provinces, represent a popular strategy to combat the epidemic (D'Souza et al., 2024; Smolina et al., 2016). These programs collect and monitor data on opioids prescribed to patients to increase transparency and prevent overprescribing, while identifying epidemiologic trends in opioid use (Ansari et al., 2020; Finley et

al., 2017). In practice, however, the effectiveness varies. The literature demonstrates a 6-30% decline in opioid prescriptions following implementation of PDMPs, depending on the demographic (Ansari et al., 2020; Lee et al., 2021). The data on PDMPs and overdose mortality is less conclusive, with studies reporting contradictory findings on effectiveness (Ansari et al., 2020; Finley et al., 2017; Lee et al., 2021). Overall, more stringent PDMPs were associated with greater protection against overdose mortality (Ansari et al., 2020). Unfortunately, some evidence points towards PDMPs inducing an increase in heroin use as a substitute, leading to greater heroin-related mortality (Ansari et al., 2020). Despite the mixed results, PDMPs appear beneficial overall, with models predicting a 1.7% decrease in opioid-related deaths in 10 years due to PDMPs alone (Rao et al., 2021).

Naloxone Access and Utilization

The ability of naloxone to prevent fatal overdoses makes it a vital harm reduction measure (Antoniou et al., 2022). Naloxone is a competitive opioid receptor antagonist that reverses the negative respiratory and central nervous system symptoms of opioid overdoses, providing an effective means of preventing fatalities while being available over-the-counter in Canada and the United States (Antoniou et al., 2022; Commissioner, 2023; Ning & Csiernik, 2024). Given its intended benefit, the rate of pharmacy-dispensed naloxone in North America has increased over time, leading to decreased overdose mortality (Ansari et al., 2020; Antoniou et al., 2022; Commissioner, 2023). In fact, models predict a 30% increase in naloxone availability would lead to a 26.3% decrease in opioid-related fatalities in a five-year period (Rao et al., 2021). Unfortunately, evidence suggests that increased harm reduction, while effective at preventing fatalities, does not adequately reduce opioid use overall (Ansari et al., 2020; Lee et al., 2021).

Supervised Injection Sites (SISs)

SISs -- controversial for managing the opioid crisis -- gained legislative approval in Canada following a Supreme Court Ruling that deemed its access to be a Canadian right (Ning & Csiernik, 2024). Despite the new federal guidelines facilitating the opening of SISs, progress was hindered by individual provinces, such as Ontario, where the Progressive Conservatives halted all SIS approvals and shifted towards abstinence-based policies (Ning & Csiernik, 2024). In contrast, SISs are largely illegal in the United States, but individual

states have recently approved state-sanctioned sites (Levengood et al., 2021).

Despite limited SIS development, its reported benefits are promising. SISs allow healthcare professionals to intervene during the early stages of an overdose, thereby preventing fatalities and building trust with the patient, which can be leveraged to direct them towards rehabilitation (Pauly et al., 2020). Thus, SISs are successful in decreasing overdose mortality and increasing access to addiction treatment, resulting in individuals using SISs being 32% less likely to be hospitalized (Lambdin et al., 2022; Levengood et al., 2021).

Future Suggestions

In response to the opioid crisis, the Stanford-Lancet Commission analyzed and recommended a multifaceted approach involving legal and retail policies (Humphreys et al., 2022). However, there is no understating the importance of policies that have already been enacted. In fact, it was predicted that the most effective strategy to mitigate the harms of the opioid epidemic involved increasing naloxone availability by 30% coupled with either reducing all opioid prescribing or introducing comprehensive PDMPs (Rao et al., 2021). This approach produced positive results, with a 0.1% increase in quality adjusted life years (QALYs), and 27% decrease in opioid deaths over five and ten years (Rao et al., 2021). Public health officials should consider the utility of pre-existing policies.

Post-pandemic, the crisis has only worsened with increased mental health issues, reduced access to addiction treatment services, and a surge in overdoses. Recent changes have been made to mitigate this issue, including adapting existing legislation and implementing new policies. The Government of Canada launched the Youth Substance Use Prevention Program based on the Icelandic Prevention Model, an internationally-recognized model used to influence risk and preventative factors related to substance use in the youth population (Government of Canada, 2023). This crucial new program emphasizes the importance of active community involvement to shape youth behaviors.

Furthermore, the Canadian Government published data on SISs and opioid-related deaths and hospitalizations (Government of Canada, 2023). The majority of SISs are located in Ontario while others are found in British Columbia, Alberta, and Quebec (Government of Canada,

2023). These provinces hold the highest rates of opioid misuse and targeting such high-incidence areas is encouraging. However, nationwide expansion of operational SISs is vital for addressing the crisis.

Conclusion

The Opioid Crisis remains a crucial public health challenge that demands a multifaceted approach. Our analysis emphasizes the importance of incorporating prevention and treatment in policy development. While encouraging steps have been made towards raising awareness, implementing PDMPs, and improving naloxone access, there is still significant work to be done.

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