

CASE STUDY

MANAGING THE OPIOID EPIDEMIC: INTERMOUNTAIN HEALTHCARE

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INTRODUCTION

THE OPIOID EPIDEMIC

The opioid epidemic is a significant public health issue affecting communities across the country. With over 214 million prescriptions dispensed nationally in 2016, the abundance of opioids has resulted in widespread abuse and addiction.¹ In 2016, the opioid epidemic had a national economic impact of \$504 billion, 11.5 million people misused prescription opioids, 2.1 million people had an opioid abuse disorder, and over 42,000 people died from overdosing on opioids.² As the number of people with opioid abuse disorders has increased, emergency department (ED) visits for suspected opioid overdoses have also increased – up 30% from July 2016 to September 2017.³

As communities and healthcare organizations work to manage this crisis, the severity and ubiquity of this issue resulted in the U.S. Department of Health & Human Services declaring the opioid crisis as a public health emergency in October 2017.⁴

Health systems across the country are prioritizing opioid management, with 81% having addressed the opioid epidemic in their current strategic priorities and almost all (94%) implementing a system-wide opioid program to address the epidemic.⁵ Due to the community health implications of this issue, 52% of health systems report community relations as a function driving the need for including the opioid epidemic in the organization's strategic priorities.⁵ Reflective of this, health system strategies often include a multi-pronged approach including both internal and community-facing efforts. A majority of health systems include community programs (65%) in their system-wide opioid programs.⁵

KEY FINDINGS

- After conducting a comprehensive survey to determine the usage patterns and pain management requirements of their patients, Intermountain Healthcare established a systemwide goal of reducing opioid prescriptions by 40%.
 - » Leaders at Intermountain found no correlation between opioid prescription reductions and patient satisfaction, indicating patients were not adversely impacted by these changes.
- Intermountain developed an opioid stewardship team to lead internal efforts around reducing opioid prescriptions, including comprehensive provider and patient education programs, building new prescribing defaults and alerts into the electronic medical record (EMR), and developing a centralized dashboard to track key metrics across the organization and standardize analytics around opioid management.
- Intermountain has implemented numerous community health programs in partnership with the Opioid Community Collaborative, primarily focused around reducing opioid utilization, encouraging proper usage and disposal of opioids, and supporting the adoption of medication-assisted treatment for opioid disorders.
 - » Efforts include installing opioid disposal drop boxes, offering training on naloxone use and courses around chronic pain management, and public awareness initiatives.

MANAGING THE OPIOID CRISIS AT INTERMOUNTAIN HEALTHCARE

INTERMOUNTAIN HEALTHCARE

Based in Salt Lake City, Utah, Intermountain Healthcare is one of the largest not-for-profit health systems in the United States. Intermountain operates 23 hospitals and 185 clinics throughout Utah and southeastern Idaho and employs 37,000 caregivers, including 1,500 multi-specialty physicians.⁶ In 2017, Intermountain's revenue totaled \$7.3 billion.⁷ A mission-driven integrated delivery network nationally recognized for clinical quality and service excellence, Intermountain prioritizes supporting community health through its wellness programs and its 800,000-member health plan, SelectHealth, to "help people live the healthiest lives possible."⁶

Opioid abuse in Utah mirrors national trends, with an increasing number of opioid-involved deaths, overdoses, and ED over the last decade.⁸ From 2012 – 2014, Utah ranked fourth in the nation for drug overdose deaths and saw a 400% increase in prescription opioid-related deaths.⁹ In 2016, the most recently available data, there were 466 opioid-related overdose deaths in Utah at a rate of 16.4 deaths per 100,000 people – higher than the national average of 13.3 deaths per 100,000 people.⁸

Recognizing the severity of this issue throughout the state and the pressing community health need, leadership at Intermountain Healthcare prioritized opioid management and implemented programs to reduce opioid prescriptions and opioid addictions in the community. A crucial component of Intermountain's strategy was implementing internal initiatives to change practice, complemented by broader community programs focused around education and treatment. Likely due to many of these programs, Utah saw a 12% decline in drug overdose deaths in the year ending January 2018, compared to the 7% increase seen nationwide.¹⁰

REDUCING OPIOID PRESCRIPTIONS AT INTERMOUNTAIN HEALTHCARE

DEVELOPING PRESCRIBING GUIDELINES

Intermountain Healthcare has prioritized opioid management at a system-level, championed by the highest levels of executive leadership including the CEO. Recognizing the important role of the provider in solving the opioid crisis, Intermountain has implemented a comprehensive strategy to reduce the number of opioid tablets prescribed across the Intermountain physician network. Primarily centered around decreasing prescriptions, efforts at Intermountain include alerts and prescription recommendations built into the EMR, educational programs, and a centralized council to coordinate and align initiatives across the organization (Figure 1).

To determine new prescribing limits and develop a feasible target for prescription reduction, leaders at Intermountain found it valuable to integrate the patient perspective in the process. First, to develop a baseline for patient opioid utilization patterns, Intermountain administered a survey to over 125,000 post-operative surgical patients to determine how many of the total prescribed opioid tablets patients actually utilize. Survey results revealed patient uptake of 50% for prescribed opioids. Next, using this data Intermountain established a systemwide goal of reducing the overall number of opioids prescribed for acute conditions by 40% by the end of 2018. Additionally, Intermountain aimed to decrease the co-prescribing of opioid and benzodiazepines by 15%. Reflective of the high prioritization of this issue, the stated prescription reduction goals have been established as Board-level goals and are integrated into the continuous improvement processes of the health system. Intermountain Healthcare has dedicated \$5.5 million in funding to supporting opioid management strategies internally and throughout the community.

FIGURE 1. OPIOID MANAGEMENT STRATEGIES AT INTERMOUNTAIN HEALTHCARE

COORDINATING COUNCIL	<ul style="list-style-type: none">■ Multidisciplinary steering committee to coordinate and align efforts systemwide■ Centralized dashboard to track key metrics around prescribing trends
PRESCRIPTION RECOMMENDATIONS	<ul style="list-style-type: none">■ Integrating procedure-specific recommended prescribing ranges into the EMR■ Developing EMR alerts for co-prescriptions of opioid and benzodiazepines
CLINICIAN & PATIENT EDUCATION	<ul style="list-style-type: none">■ Targeted individual and specialty-specific educational programs for physicians and APPs around opioid management■ Pre-op classes and educational videos available in the inpatient setting■ One on one education with chronic pain patients about opioid management and tapering efforts

IMPLEMENTING PRESCRIBING GUIDELINES

Intermountain initially focused provider education strategies as a mechanism for meeting the system's prescription reduction target. Education focused on communicating the dangers of opioids, alternative pain management solutions, and the development of Care Process Models for caregivers to manage opioid abuse disorders. While these efforts yielded an overall 10% reduction in opioid prescriptions, they alone were not sufficient to reach the system's 40% reduction target.

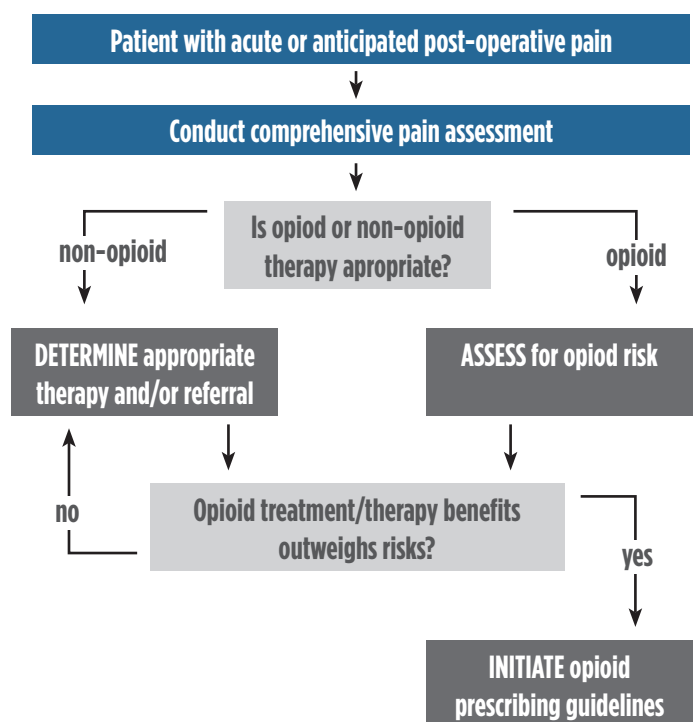
A core element of Intermountain's opioid management strategy is the development of a centralized coordinating council that coordinates efforts and clinical programs, manages ongoing initiatives, and ensures targets and data are uniformly defined across the health system. Leveraging the multidisciplinary expertise available in the health system, the council includes team members from areas including pain management, communications, data analytics, community coordination, and project management. Aiming to standardize the work occurring across the organization, the coordinating council is prioritizing the development of a single dashboard that can be used to track prescribing practices and standardize the analytics leveraged for opioid management. A key challenge for the coordinating council is promoting and maintaining awareness for opioid management among clinicians. However, frequent and targeted communication about opioid management throughout the organization can help keep this issue top of mind. Additionally, the coordinating council will be able to track prescribing rates across the organization to identify top prescribers to target with additional education or escalate to leadership, if necessary. While the coordinating council and the work associated with opioid management do not have any dedicated full-time employees, the council has significant support from executive leadership due to the high-profile nature of the topic and demonstrated community need. Reflective of this support, resources needed for opioid management initiatives are approved at an executive level.

To meet the health system's goal of a 40% reduction in the number of opioids prescribed, Intermountain also implemented dosage and quantity limits on opioids. Additionally, guidelines promote prescribing immediate-release, short-acting opioids only. Recognizing different procedures require varying levels of pain management, Intermountain has developed recommended opioid prescribing ranges for approximately 100 different surgical procedures and is in the process of building those recommendations into the electronic medical record (EMR). The development of these recommendations was a collaborative process, involving clinical experts from the surgical services team as well as the data analytics and pharmacy teams. Changing the default options in the EMR, the standard prescriptions now incorporate lower dosages and a recommended three-day supply per patient. While providers are able to deviate from prescribing recommendations, the new default pathways require physicians to justify a change in the dosage or quantities to prescribe at a higher rate or longer duration. Intermountain has also aligned its health plan, SelectHealth, to support the organization's goals by limiting coverage for initial opioid prescriptions for acute pain to a maximum supply of seven days.

Aligned with Utah and CDC guidelines, recommendations also encourage the integration of non-opioid therapies for pain management including multimodal therapies, nonsteroidal anti-inflammatory drugs, regional analgesia, and/or other physical, psychological, or interventional non-opioid therapies to reduce the overall volume of opioids prescribed.¹¹ Alternative treatment options are determined after a comprehensive pain assessment has been conducted (Figure 2).¹¹ Guidelines also recommend re-evaluating a patient's pain management plan if severe acute pain continues beyond the anticipated duration and adjusting accordingly.

Additionally, a key priority for Intermountain Healthcare is a 15% reduction of co-prescriptions for opioids and benzodiazepines, as this can increase the risk of overdose. As both opioids and benzodiazepines act as sedatives and suppress breathing, overdose fatalities may increase when used in combination.¹² Previous studies have found the overdose death rate for patients taking

FIGURE 2. INTERMOUNTAIN ACUTE PAIN PRESCRIBING GUIDELINES



both benzodiazepines and opioids to be 10 times higher than for those patients only using opioids.¹² Because of this risk, Intermountain has also developed alerts in the EMR to discourage chronic co-prescribing. Due to these efforts, Intermountain has reduced co-prescriptions of benzodiazepines and opioids by 9.4% thus far.

Beyond developing and standardizing new prescribing recommendations, implementing these recommendations requires clinician adoption and buy-in. To ensure clinicians were fully engaged, Intermountain invested in provider education, through both one-on-one conversations with physicians as well as group discussions. Clinical leaders spoke with individual specialty groups to understand their perspective, current prescribing habits, and facilitate discussions around changing opioid prescribing guidelines and why this is a critical initiative for the organization utilizing historic prescribing data, patient survey data, and national trends. Additionally, to ensure a comprehensive cultural shift, Intermountain broadened the focus of their educational efforts to include Advanced Practice Providers (APPs), providing all APPs the same education and coaching as physicians around opioid reduction.

Physician education was crucial to making this work. We had to change the mindset and the culture of the physicians, and that changes the prescribing practices.”

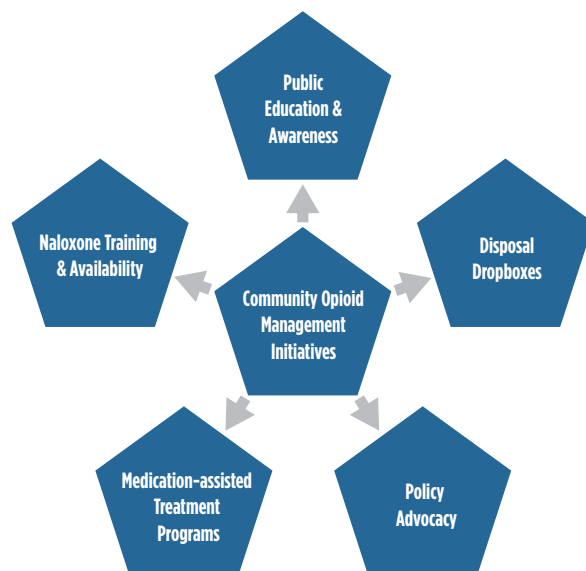
David Hasleton, MD, Senior Medical Director, Intermountain Healthcare

Complementing clinician education efforts, Intermountain also developed education programs directed towards patients. Patient education efforts include pre-op classes to discuss expectations for pain levels and duration, classes around chronic pain management, and educational video channels available in the hospitals. Additionally, Intermountain’s pain clinics offer one on one education with chronic pain patients about opioid management and tapering efforts led by pharmacists.

INTERMOUNTAIN OPIOID MANAGEMENT IN THE COMMUNITY

Recognizing the opioid crisis extends far beyond the walls of the health system, Intermountain Healthcare has also been active in implementing external community health programs around opioid management (Figure 3). Community efforts are primarily coordinated through the Opioid Community Collaborative (OCC), a consortium of community stakeholders organized and funded by Intermountain Healthcare that implements opioid management programs throughout the state.⁹ Partnering with community leaders including the Utah Department of Health, Utah Division of Substance Abuse and Mental Health, the University of Utah, and other community stakeholders through the OCC allows Intermountain to implement opioid management programs on a broad scale and impact the greater Utah community, beyond the Intermountain patient network. With overarching goals of improving public awareness and education around opioids, improving provider education, and implementing community treatment programs, the OCC provides valuable input on strategy and direction for opioid management programs and helps to determine which initiatives would best meet the needs of the community.

FIGURE 3. COMMUNITY INITIATIVES FOR OPIOID MANAGEMENT AT INTERMOUNTAIN HEALTHCARE



One of the top priorities of the OCC is improved public education and awareness around the risks of opioid usage, as well as improved provider education. Provider education is focused around sharing data on prescribing patterns and models to guide prescribing practices. Since 2016, 3,500 physicians have been trained around opioid management.¹³ Aimed at reducing the stigma associated with opioid addiction and improving community understanding of the opioid crisis, community education campaigns focus on using opioids as directed and the appropriate storage and disposal of prescriptions. Education campaigns are disseminated through multiple formats including posted materials in public places such as libraries, recreation centers, and hospitals, a weekly podcast in which Intermountain and other community health leaders discuss public health concerns including the opioid crisis, and an ongoing speaker series covering public health issues. Intermountain also offers free courses open to the community around opioid management including naloxone treatment and has distributed over 6,600 naloxone

rescue kits through community events and Intermountain's community pharmacies. Additionally, Intermountain offers a six-week evidence-based Chronic Pain Self-Management course free of charge to the community around alternatives to prescription opioids. Offering dozens of classes in 2017 and 2018 and coordinated across the state by an educational consultant, Intermountain has found that participants who complete the course are more likely to reduce or stop opioid usage, while also reporting a higher quality of life than non-participants.

Reflective of these educational efforts, community awareness around the risks of opioid addiction is improving. A community survey conducted in 2016 found 81% of respondents believed prescription pain medication has the potential for abuse and addiction – up 40 percentage points from 2010.⁹ Additionally, the 'Use as Directed' campaign resulted in 83% of patients discussing the risks associated with opioids and 53% discussing alternative treatment options with their physicians.¹³

Intermountain has also installed over 100 disposal drop boxes at Intermountain pharmacies and throughout the community, to promote proper disposal of prescription opioids, while also distributing information on safe disposal practices through a daily newspaper. Intermountain has collected over 20,000 pounds of disposed drugs through the 26 disposal drop boxes located in Intermountain pharmacies since their installation.

Beyond education, Intermountain has funded and implemented medication-assisted treatment programs in combination with counseling targeting underserved populations. In operation for three years, almost 500 people have received treatment across the state. Additionally, the program has resulted in an 83-85% abstinence

rate for participants, significantly higher than the 64.5% abstinence achieved through other public health programs not utilizing medication-assisted treatment.⁹ Patient retention has been found to be higher when utilizing medication-assisted treatment, with 55% of patients retained after 15 months of treatment, compared to 13% retention through other treatment programs.¹³

We work very closely with our external partners – it's a very collaborative process and we've received some very positive feedback from patients. Extending our efforts outside the health system is huge."

Lisa Nichols, Community Health Executive Director, Intermountain Healthcare

MEASURING SUCCESS AND FUTURE DIRECTION

Thus far, Intermountain's efforts have resulted in a 30.1% reduction in the overall number of opioids prescribed for acute conditions. Beyond the total number of opioid prescriptions, Intermountain currently tracks several metrics to measure the success of their internal and community-facing initiatives. Leveraging the centralized dashboard, analysts in the coordinating council can create reports utilizing data from across the health system to track trends around the number of pills prescribed per order, the number of orders over three days, average morphine equivalency and the number of orders over 90 milligrams, and the number of orders co-prescribed with benzodiazepines. Additionally, analysts can develop reports on top prescribers which the health system can use to identify individuals in need of additional education or facilitate a conversation around why their prescribing practices may be different.

As Intermountain has implemented these efforts to reduce opioid prescribing, it was important to understand the effect on the patient. Intermountain has conducted a study to understand the correlation between reduced opioid prescribing and HCAHPs scores, patient satisfaction, and patient perception of quality. Encouragingly, Intermountain found no correlation, indicating patients are not adversely affected with reduced opioids.

Looking ahead, the coordinating council hopes to be able to also track additional metrics including financial impact on the health system, trends in per member per month costs for patients with chronic pain, emergency department visits associated with opioids, cost per episode, and ongoing tracking of HCAHPs scores and patient satisfaction to measure the broader impact of opioid reduction efforts on the organization and the community.

In the community, Intermountain currently tracks metrics such as opioid death rates by type of medication and morphine milligram equivalents (MMEs) across the state through the Utah Department of Health; however, leaders at Intermountain hope to gain access to additional data external to the health system to better understand their populations and target interventions more effectively.

Lastly, in an effort to have a broad and lasting impact, Intermountain leverages its policy committee to advocate at the state level for policies that support community health, wellness, and opioid management. A top priority for the committee is data availability, including obtaining access to external mortality data for Intermountain patients that died from an overdose. Additionally, Intermountain is highly focused on increasing the availability of mental health services, aiming to focus on the root cause of addiction rather than only treatment.

Looking toward the future, leaders at Intermountain plan to continue to work with stakeholders in their community to improve opioid management. Intermountain is currently working with the Centers for Medicare & Medicaid Services (CMS) to develop a toolkit around opioid management to help disseminate best practices. Additionally, Intermountain hopes to share best practices with provider and community organizations across the country to improve efforts on managing the opioid epidemic in their respective communities.

“We recognize we’re not all the way there but we’re trying to share our experience with others – where the opportunities exist, and lessons learned. In general, we’re working on getting to the root cause of the issue, not just the treatment. We are looking to address the social needs of the community.”

Lisa Nichols, Community Health Executive Director, Intermountain Healthcare

INFORMED PRACTICES FOR ESTABLISHING AN EFFECTIVE OPIOID MANAGEMENT STRATEGY

- 1.** Establish comprehensive, organizational goals coordinated through a centralized and multi-disciplinary committee with senior leadership support to create system-wide alignment.
- 2.** In addition to a strong internal strategy, health systems must equally invest in community programs to manage patient expectations and improve compliance.
 - a.** A multi-pronged approach, with both internal and external components, is required for true opioid management.
- 3.** Leveraging data and evidence-based best practices to provide clinician and community education that raises awareness and changes the culture around opioids is crucial for meaningful process change.

METHODOLOGY

In November 2017, The Health Management Academy conducted a quantitative survey of Leading Health Systems regarding strategies implemented to address the opioid epidemic. Twenty-one Chief Medical Officers (CMOs), Chief Operating Officers (COOs), Medical Group Leaders, and Clinical Executives responded. Building off the quantitative survey, The Academy conducted in-depth qualitative interviews highlighting health systems’ efforts to reduce opioid prescriptions.

In Fall 2018, The Academy conducted in-depth telephone interviews with five executives at Intermountain Healthcare around the health system’s strategy to manage the opioid crisis, as well as the initiatives implemented and outcomes thus far. The Academy thanks the following individuals for their participation in this project:

- Lysie Daley, Senior Data Analyst, Intermountain Healthcare
- Steve Hadley, Director HR Employee Analytics, Intermountain Healthcare
- David Hasleton, MD, Senior Medical Director, Intermountain Healthcare
- Lisa Nichols, Community Health Executive Director, Intermountain Healthcare
- Bridget Shears, Pain Management Clinical Services Director, Intermountain Healthcare

None of the participants listed derived any personal profit or gain through participation in this case study.

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THE HEALTH MANAGEMENT ACADEMY, “THE ACADEMY”

The Health Management Academy (The Academy) is a membership organization exclusively for executives from the country's Top-100 Health Systems and most innovative healthcare companies. The Academy's learning model identifies top priorities of health system leaders; develops rich content based on those priorities; and addresses them by convening members to exchange ideas, best practices, and information. The Academy is the definitive trusted source for peer-to-peer learning in healthcare delivery with a material record of research and policy analysis. Offerings include C-suite executive peer forums, issues-based collaboratives, leadership development programs, research, advisory, and media services. The Academy is an accredited CE provider. More information is available at www.academynet.com.

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