

State University Partnership Research Brief
University of Kentucky Healthcare’s Office of Opioid Safety

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College/School: College of Pharmacy
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What is Known on This Topic?

The opioid epidemic continues to take the lives of Americans every year, with more than 1,500 deaths in Kentucky alone in 2017. Prescription opioids account for almost 90% of misused opioids in the U.S. Increasing evidence suggests that non-opioid therapies may work as well or better than opioids for many types of pain.

What Did this Project Do?

This project describes the founding of the Office of Opioid Safety within University of Kentucky Healthcare. This Office aims to reduce unnecessary opioid use and raise awareness throughout Kentucky by hosting educational sessions for clinicians. It also provides resources for patients to aid with pain management and real-time data analysis for UK Hospital.

What Could Medicaid Do with These Conclusions?

Since the inception of the program in 2016, there have been over 280,000 fewer opioid pills dispensed and 4,500 new opioid prescriptions avoided annually. Educating clinicians about alternative forms of pain management might significantly lower the healthcare costs of treating Opioid Use Disorder for Medicaid.

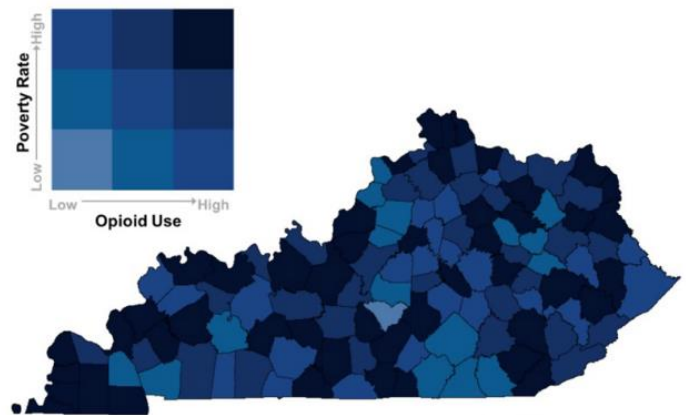
Introduction

Poverty and Opioid Use Collide

Between the years 2014 and 2017, Kentucky saw a 21% decrease in opioid prescriptions per capita. In spite of this, Kentucky is still ranked 7th highest in terms of its rate of opioid prescriptions per capita – with 32 out of 120 counties ranking in the top 90th percentile nationally. Owsley, Bell, Whitley, and Floyd counties ranked 5th, 6th, 7th, and 10th in the nation. These same 32 counties also ranked in the 90th

percentile or higher nationally for individuals per capita living in poverty, putting them at even greater risk. Areas with lower economic opportunity are disproportionately affected by the opioid epidemic.¹ The prevalence of drug overdose deaths and opioid prescriptions has risen and rural areas are the most heavily affected. Poverty, unemployment rates, and the employment-to-population ratio are highly correlated with the prevalence of prescription opioids and with substance use measures.² On average, counties with worse economic prospects are more likely to have higher rates of opioid prescriptions, opioid-related hospitalizations, and drug overdose deaths.¹

Figure 1 – Poverty Rate and Opioid Use in Kentucky



Changing Thinking and Prescribing

In conventional medical practice, opioids are typically used as first-line therapy for pain management, while non-opioids are added to the treatment regimen last and removed first. However, an increasing amount of evidence has shown that non-opioid therapies may work better than opioids for many types of pain.³ Training and educating prescribers on non-opioid alternatives to pain treatment and management (e.g., non-steroidal anti-inflammatory drugs) can help reduce unnecessary opioid use and combat the opioid epidemic in Kentucky.

Project Methods and Results

Project Design

To address the problem of superfluous opioid use, University of Kentucky (UK) Healthcare established the Office of Opioid Safety. This Office’s mission is to promote the safe and effective use of opioid analgesic drugs.

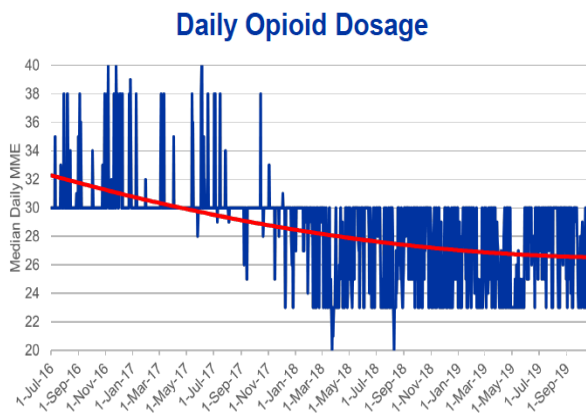
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In service of this mission, the Office of Opioid Safety developed a series of interventions for healthcare providers and patients regarding analgesia and opioid use. Educational materials were developed to direct providers towards non-opioid analgesic regimens for specific procedures. The project also implemented tools within the UK’s electronic medical record system to prompt prescribers towards safe and effective strategies for analgesia. These tools reported data on opioid-related sedation events that were used to study trends and assess risk. These tools also collected data on: (1) opioid prescriptions at discharge from hospital-based encounters; (2) the number of opioid-related adverse respiratory events in the hospital setting, and; (3) the use of opioids for pain treatment for various conditions in the emergency department. This study also recognized the importance of community involvement in helping combat the opioid epidemic. Members of the Office have set up collaborations with community partners such as ambulatory clinics, home-based care providers, pharmacies, law enforcement, religious organizations, and government agencies to promote appropriate use of opioids and create a supportive environment within the community.

Results

Since the program’s inception in 2016, the Office of Opioid Safety has reported a reduced inpatient opioid use by >280,000 fewer opioid pills, reduced high-risk prescriptions by over half, improved overall pain ratings from hospitalized patients, decreased opioid prescriptions at hospital discharge by an average of 25 per week, and provided naloxone to more than 2,000 patients within the healthcare system. These results are illustrated in Figure’s 2 and 3 – which respectively show declines in median daily dosages and declines in new discharge prescriptions for patients who were not taking an opioid medication at admission to the hospital.

Figure 2 – Daily Opioid Dosage (UK Hospital: 2016-2019)



Goals of the Office of Opioid Safety moving forward are: (1) to reduce prescription opioid use in Kentucky to the national rate by 2025; (2) achieve 97% participation among hospitals and health systems; (3) develop processes to ensure safe use of chronic opioid therapy when indicated; (4) build collaborations with additional prescriber groups (e.g., dentists), and; (5) to reduce unnecessary opioid use in the UK Hospital emergency department by 20%.

Figure 3–Discharges w/ New Opioid Prescriptions (UK Healthcare)

New Discharge Prescriptions



Conclusions & Health Policy Implications for Medicaid

This project aimed to combat Kentucky’s opioid epidemic by establishing a new Office within the UK Healthcare system. Results suggest positive results in terms of reducing the amount of opioids prescribed to patients – without sacrificing overall pain outcomes. The promotion of non-opioid analgesics, education on proper opioid usage to providers, and community-based programs that promote appropriate use of opioids could be effective strategies to help reduce the instances of Opioid Use Disorder and lower the related healthcare costs to Medicaid.

References

¹Ghertner, Robin, & Groves, Lincoln. (2018). The Opioid Crisis and Economic Opportunity: Geographic and Economic Trends. *Office of the Assistant Secretary for Planning and Evaluation Research Brief*. U.S. Department of Health and Human Services.

²Dasgupta, N., Beletsky, L., & Ciccarone, D. (2018). Opioid crisis: no easy fix to its social and economic determinants. *American Journal of Public Health, 108*(2), 182-186.

³Smith, S. R., Deshpande, B. R., Collins, J. E., Katz, J. N., & Losina, E. (2016). Comparative pain reduction of oral non-steroidal anti-inflammatory drugs and opioids for knee osteoarthritis: systematic analytic review. *Osteoarthritis and Cartilage, 24*(6), 962-972.