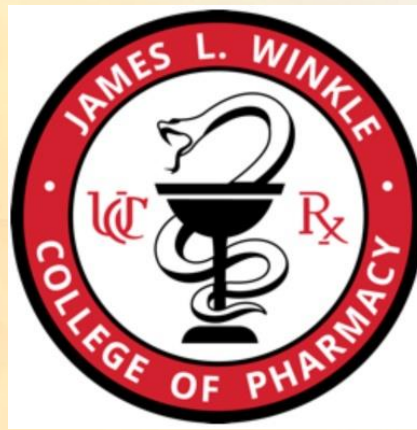


Addressing the Opioid Crisis: A Pharmacist's Perspective

Dr. Neil MacKinnon, Dean & Professor



@RxDeanMac



Presenter Disclosure



Presenter's Name: Neil MacKinnon

I have no current or past relationships with commercial entities.

I have received no speaker's fee for this learning activity.



Commercial Support Disclosure



This program has received no financial or in-kind support from any commercial or other organization.



My Personal Interest in this Topic



UC Study Examines Opioid Prescribing and Practices in Ohio EDs

Published: 8/1/2017



Emergency Department

PHOTOS: 1

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Media Contact: Angela Koenig, 513-558-4625

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UC Study Examines Opioid Prescribing and Practices in Ohio EDs

CINCINNATI—A survey led by a team of researchers at the University of Cincinnati Academic Health Center reports that the majority of Ohio's emergency department (ED) administrators and physicians are in support of the most recent state guidelines for prescribing opioids, but challenges still exist in implementation.

Combating Opioid Overdoses in Ohio: Emergency Department Physicians' Prescribing Patterns and Perceptions of Naloxone

Jonathan Penm, BPharm (Hons), PhD¹, Neil J. MacKinnon, BSc (Pharm), MSc (Pharm), PhD², Michael S. Lyons, MD, MPH³, Erica Tolle, PharmD^{4,5}, and Gregory T. Sneed, PharmD²

¹Faculty of Pharmacy, The University of Sydney, Sydney, NSW, Australia; ²College of Pharmacy, University of Cincinnati, Cincinnati, OH, USA; ³College of Medicine, University of Cincinnati, Cincinnati, OH, USA; ⁴Institute for Wellness and Education, Woodstock, GA, USA; ⁵Physician's Pharmacy, Austell, GA, USA.

KEY WORDS: drug abuse; emergency medicine; practice variation; substance abuse; survey research.

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DOI: 10.1007/s11606-018-4353-6
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lasted between 30 and 60 min and field notes were taken to augment interview data. All interview data was transcribed and analyzed in NVivo 10 (QRS International, Burlington, MA) using thematic analysis.³ This study was approved by the University of Cincinnati and Ohio Department of Health Institutional Review Boards.

Open access

Research

BMJ Open Statewide cross-sectional survey of emergency departments' adoption and implementation of the Ohio opioid prescribing guidelines and opioid



Dozens of solutions to the opioid crisis.

The University of Cincinnati Academic Health Center, located right in the epicenter of the opioid crisis, is tackling the issue with innovation and collaboration. [MORE>>](#)



Emergency Physicians' Perception of Barriers and Facilitators for Adopting an Opioid Prescribing Guideline in Ohio: A Qualitative Interview Study

Jonathan Penm, BPharm (Hons), PhD¹, Neil J. MacKinnon, BSc(Pharm), MSc(Pharm), PhD, Chloe Connelly, MA, Rebecca Mashni, BS, Michael S. Lyons, MD, MPH, Edmond A. Hooker, MD, DrPH, Erin L. Winstanley, PhD, Steve Carlton-Ford, MA, PhD, Erica Tolle, PharmD, Jill Boone, PharmD, Kathleen Koechlin, BSN, MPH, PhD, Jolene Defiore-Hyrmer, MPH
Published Online: October 17, 2018



Hernandez is working in UC's Health Geography and Disease Modeling Laboratory. Photo/Jay Yocis/UC Creative Services



UC student Andres Hernandez has been studying the underlying causes of Ohio's prescription opiate epidemic. Photo/Jay Yocis/UC Creative Services



Learning Objectives



- By the end of this presentation, you should be able to:
 - Describe the magnitude of the opioid crisis.
 - Discuss potential solutions to the opioid crisis.
 - Consider the critical role of pharmacists in addressing the crisis.



Learning Objectives



- By the end of this presentation, you should be able to:
 - Describe the magnitude of the opioid crisis.



The Heroin-Fentanyl Timeline



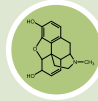
6000 yr
Sumerian
Tablet



1500 BC
Ebers
Papyrus



1806
Morphine
Extracted



1853
Hypodermic
Syringe
Perfected



1898
Heroin
Produced



1960
Fentanyl
Produced



1973
mu
receptor
discovered



Presented by Dr. Jon Sprague at the Tri-State
Opioid Symposium, March 2, 2019



The Opioid Crisis



- Over 52,000 drug overdose deaths each year in America.
- More deaths than HIV/AIDS at its peak in the 1990s and more deaths than from car crashes or guns.
- Neil's visit to UC Health's University Medical Centre ED in August 2019
- Broader implications of this public health issue.



Opioid-Related Mortality



- In the US, overall opioid-related mortality resulted in 0.36 years of life expectancy lost in 2016, which was 14% higher than deaths due to firearms and 18% higher than deaths due to motor vehicle crashes.
- From 1999 to 2016, 8 states, including Ohio, had opioid-related mortality rates that were at least doubling every 3 years.
- From 1999 to 2016, there were 351,564 opioid-related deaths in the US and mean age at death for men was 39.8 and for women it was 43.5.

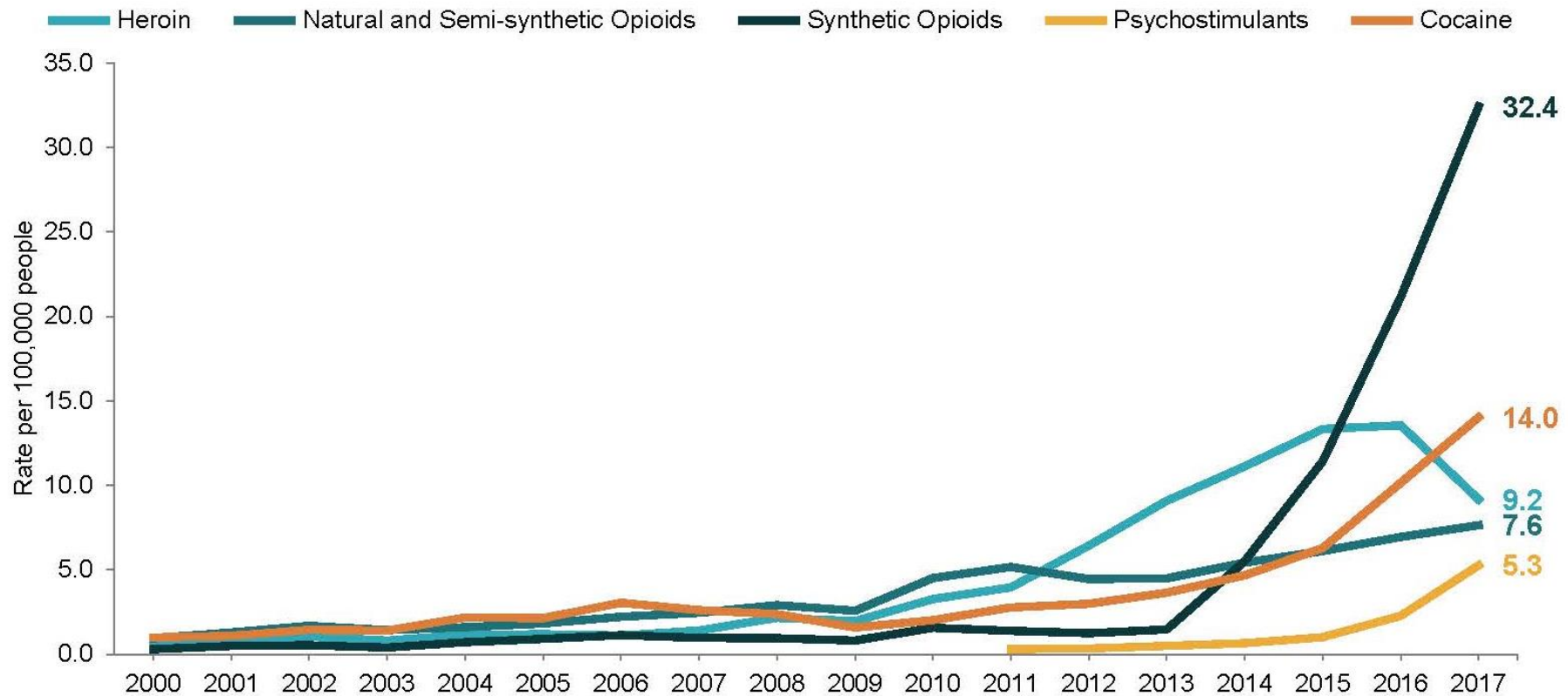
Source: Kiang, Basu, Chen , et al. Assessment of Changes in the Geographical Distribution of Opioid-Related Mortality Across the United States by Opioid Type, 1999-2016. *JAMA* 2019; 2(2): e190040.



Trends in Drug Overdose Deaths in Ohio by Drug Type



Trends in Drug Overdose Deaths per 100,000 people, by Drug Type (2000-2017)



Source: Shadac, The Evolving Opioid Crisis Across the United States, Ohio, Feb 2019.



The Opioid Crisis & the Role of Drug Manufacturers



- What is the relationship between direct-to-physician marketing of opioids by pharmaceutical companies and mortality from Rx opioid overdoses?
- A recently published paper looked at \$39.7 million in opioid marketing targeted to 67,507 MDs across 2208 US counties from 2013-15.
- “Marketing of opioid products to MDs was associated with increased opioid prescribing and, subsequently, with elevated mortality from overdoses.”



Source: Hadland, Rivera-Aguirre, Marshall, et al. Association of pharmaceutical industry marketing of opioid products with mortality from opioid-related overdoses. *JAMA* 2019; 2(1): e186007.



Faces of an Epidemic



- In fall 2017, the *New Yorker* magazine did a profile on the opioid crisis called *Faces of an Epidemic*, with a focus on Montgomery County, Ohio.
- The link to the photos:
https://www.newyorker.com/magazine/2017/10/30/faces-of-an-epidemic?mbid=social_twitter
- The Backstory: A short interview with the photographer who shot the photos:
- https://www.youtube.com/watch?v=p7gnU_96ghc



Learning Objectives



- By the end of this presentation, you should be able to:
 - Describe the magnitude of the opioid crisis.
 - **Discuss potential solutions to the opioid crisis.**



How Can We Address the Opioid Crisis?



- The Trump Administration's **National Drug Control Strategy** was released in January 2019. It is intended to guide and focus US Federal government efforts along three complementary lines of effort:
 - Reduce the size of the drug-using population by preventing initiatives to illicit drug use through education and evidence-based prevention programs.
 - Reduce barriers to treatment services so that access to long-term recovery is available for those suffering from substance use disorder.
 - Reduce the availability of these drugs in the US through law enforcement and cooperation with international partners.



Strategies and Policies Used in Ohio to Address the Opioid Crisis



- In 2011, Ohio Governor Kasich formed the Governor's Cabinet Opiate Action Team (GCOAT).
- Comprised of several state agencies, including the Ohio Board of Pharmacy.
- Promotes the responsible use of opioids.
- Reduces the supply of opioids.
- Supports overdose prevention and expands access to naloxone.
- In 2019, Governor DeWine reorganized this team and it is now called Recovery Ohio.

Penm J, MacKinnon NJ, Boone J, Winstanley EL, Ciaccia A, McNamee C. Strategies and policies to address the opioid epidemic: A case study of Ohio. *Journal of the American Pharmacists Association*. 2017; 57: S148-S153.

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journal homepage: www.japha.org

APhA

EXPERIENCE

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

Jonathan Penm*, Neil J. MacKinnon, Jill M. Boone, Antonio Ciaccia, Cameron McNamee, Erin L. Winstanley

ARTICLE INFO

ABSTRACT

Article history:
Received 21 August 2016
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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.

Home > Inform

Inform Popular

Eye on Ohio: how the state is monitoring their opioid crisis

By Cesar Gamboa - March 20, 2017



f t G+ p

Strategies and Policies Used in Ohio to Address the Opioid Crisis



- Recovery Ohio's initial report was released on March 14, 2019 and it contains 70 recommendations.
- Some of the highlights include:
 - ✓ Establish statewide prevention coordination with all state departments and agencies.
 - ✓ Commission a statewide campaign to address stigma.
 - ✓ Ensure that each patient's needs and treatment recommendations are determined by a qualified clinical professional and promote insurance coverage of medically-necessary services.
 - ✓ Review and create a comprehensive plan for safe, affordable, and quality housing.



<https://governor.ohio.gov/wps/portal/gov/governor/media/news-and-media/031419a>



Strategies and Policies Used in Ohio to Address the Opioid Crisis



➤ Promoting Responsible Use of Opioids

- Three guidelines: ED/Acute Care Facility Opioid Prescribing Guidelines, Opioid Prescribing Guidelines for Treatment of Chronic Pain, and Opioid Prescribing Guidelines for Treatment of Acute Pain.
- Our research team received a grant from the Ohio Department of Health to evaluate the ED/Acute Care guidelines.
- Did the guidelines work?



Perceived Impact of the Guidelines



Increased the use of the prescription monitoring program (n=106)

Reduced inappropriate opioid prescribing (n=105)

Reduced the conflict between patients and ED staff regarding opioids (n=106)

Reduced the number of patients requesting opioids inappropriately (n=106)

Increased physician satisfaction (n=105)

Increased nurse satisfaction (n=105)

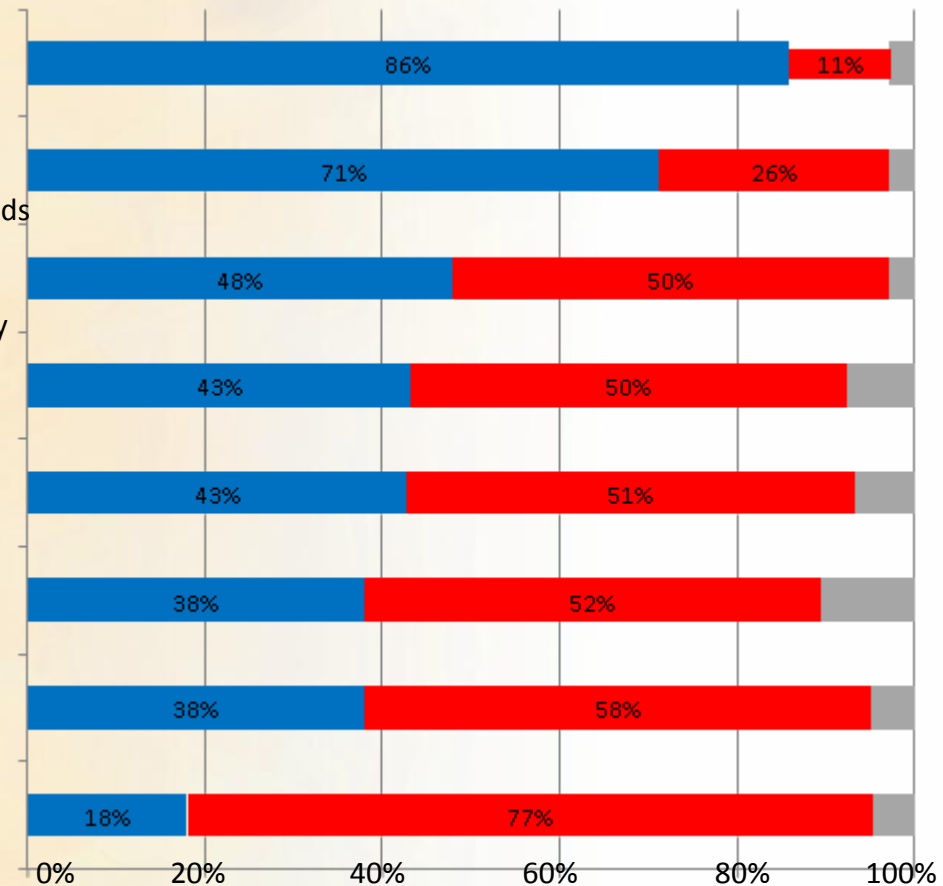
Reduced inappropriate use of the ED (n=105)

Allowed staff to focus more on emergent conditions (n=106)

Strongly agree/Agree

Neither agree nor disagree, disagree or strongly disagree

Do not know



Strategies and Policies Used in Ohio to Address the Opioid Crisis



➤ Promoting Responsible Use of Opioids

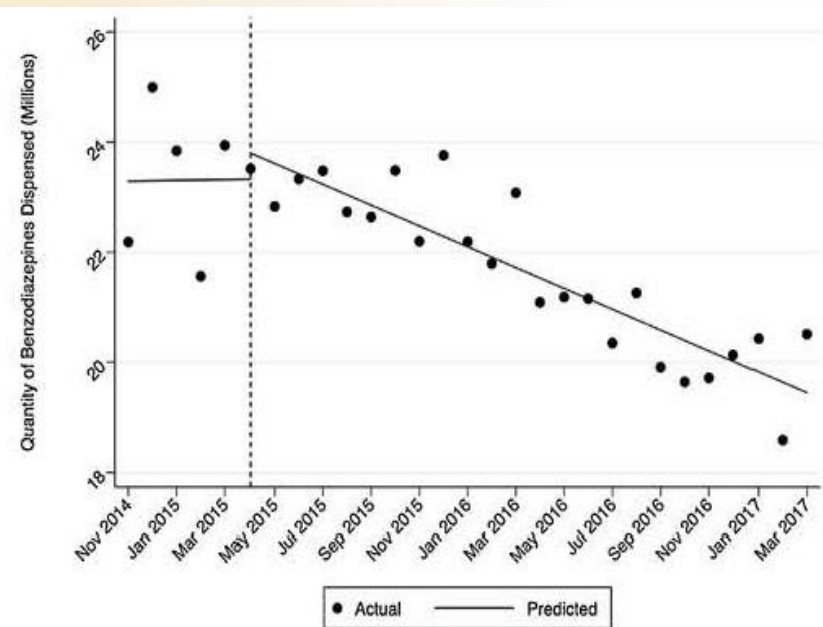
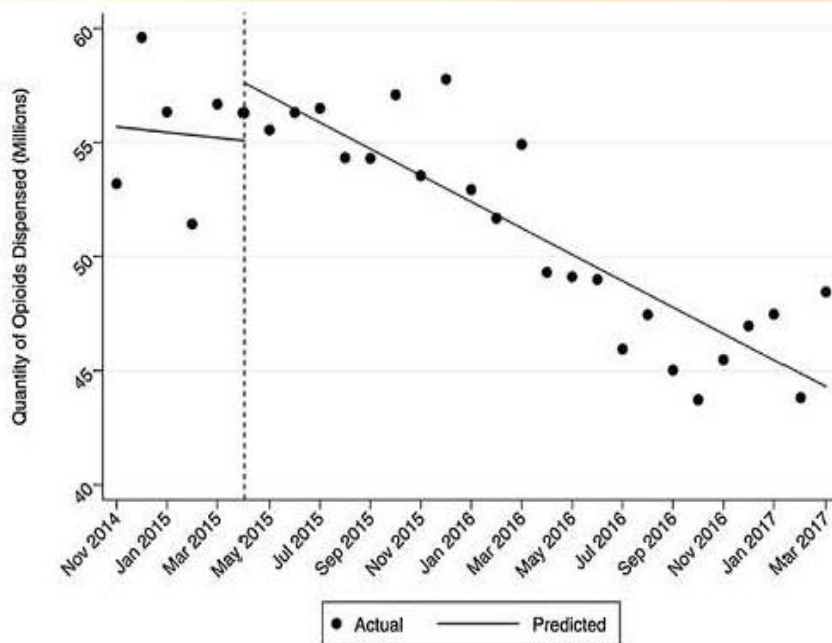
- Ohio House Bill 341 in 2014: Requires Ohio prescribers to obtain an OARRS (prescription drug monitoring program) report before prescribing an opioid.
- Our research team received a grant from the Ohio Department of Health to evaluate the ED guidelines.
- Did House Bill 341 work?



Did Ohio House Bill 341 Work?



- We conducted an interrupted time series analysis to determine if there was a significant change in the quantity of opioids and benzodiazepines dispensed from November 2014 to March 2017.



Strategies and Policies Used in Ohio to Address the Opioid Crisis



➤ Reducing the Supply of Opioids

- Ohio House Bill 93 strengthened laws to prevent “pill mills”
- Between 2011 and 2014, the licenses of 61 MDs and 15 pharmacies were revoked.
- Strategies targeted toward the Ohio Bureau of Workers’ Compensation. For example, as of 2016, no longer reimburse opioid prescriptions written by MDs who fail to use best practices.
- House Bill 188, enacted in 2016, allows pharmacists to take a more proactive role in pain management (via consult agreements with physicians).



Strategies and Policies Used in Ohio to Address the Opioid Crisis



➤ **Overdose prevention and access to naloxone**

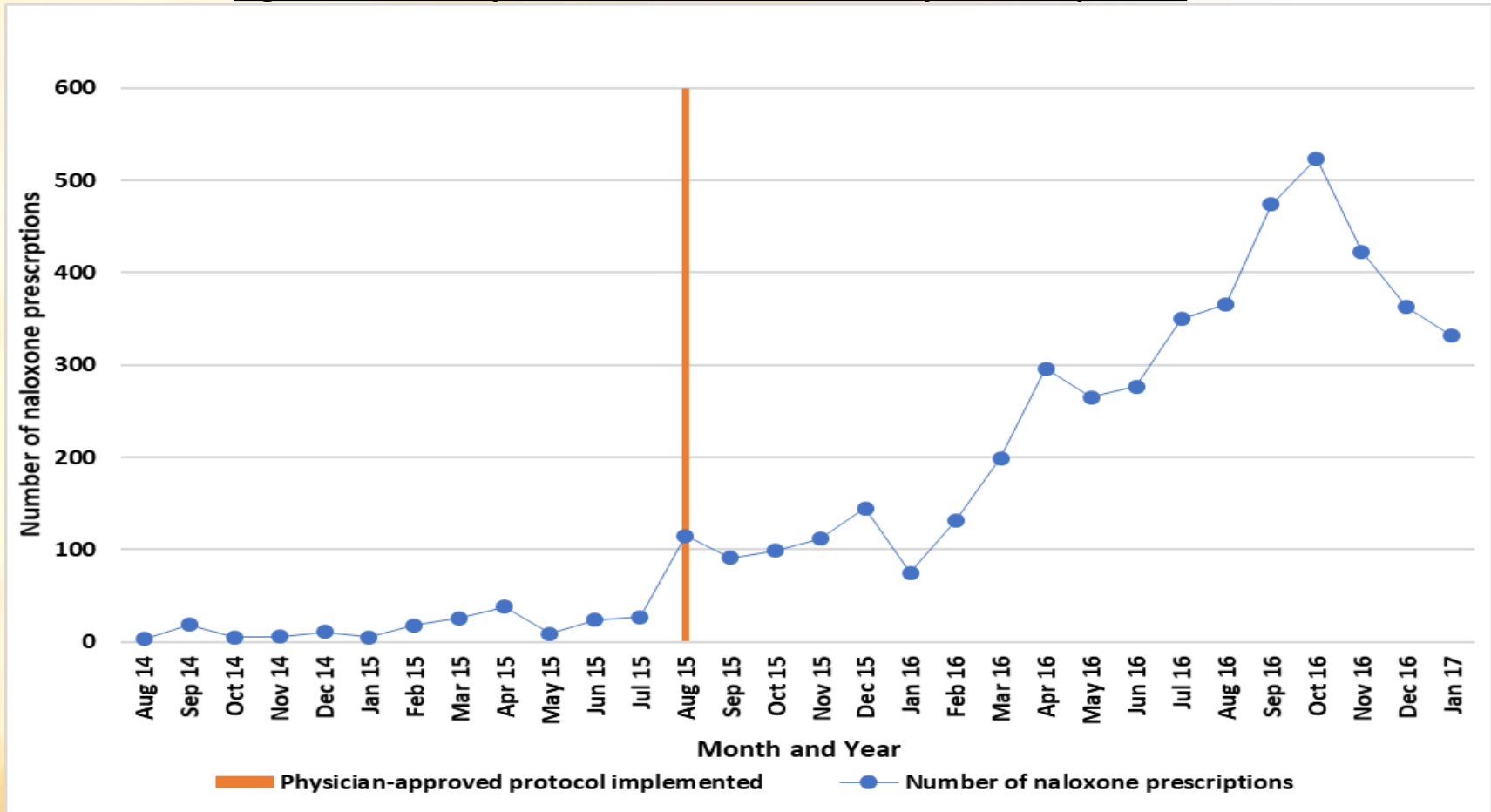
- In 2015, Ohio approved pharmacists to dispense naloxone without a prescription in accordance with a physician-approved protocol.
- Our research team received a grant from the Ohio Department of Health to evaluate access to naloxone in Ohio pharmacies.
- Barriers to naloxone access in pharmacies have been documented in California and in Texas.
- Is naloxone accessible from Ohio pharmacies?



Is Naloxone Accessible from Ohio Pharmacies?



Figure 1: Monthly Trends In Naloxone Prescriptions Dispensed



“Impact of a Standing Order Policy on Naloxone Utilization in the State of Ohio”
Heaton P, Hincapie A, MacKinnon NJ. American Pharmacists Association Annual Meeting,
Seattle, WA, March 2019.



The UC/UC Health Opioid Task Force



The Opioid Task Force will demonstrate its commitment to this significant public health issue by bringing together researchers, educators, clinicians and leaders/advocates who are dedicated to having a positive impact on opioid addiction locally, regionally and nationally.




The UC/UC Health Opioid Task Force: **Working Groups**



- In April 2017, our Task Force was formed and we created four working groups:
 - Interprofessional Research
 - Interprofessional Education
 - Interprofessional Practice
 - Community Outreach and Engagement
- Inventory of ongoing activities.
- Over 70 faculty/clinicians/researchers.
- UC Health is conducting a pilot project we recommended to enhance continuity of care for patients with opioid addiction.





MARK YOUR CALENDARS NOW AND PLAN TO ATTEND

Tri-State Opioid Symposium

Presented by the UC/UC Health Opioid Taskforce

Saturday, March 2, 2019

8:30 a.m.–3 p.m. at the University of Cincinnati Kowalewski Hall

“Emerging Issues in Our Current Environment– Interdisciplinary Approaches”

Panels and presentations will feature **addiction topics**, **research updates** along with **clinical treatment and recovery strategies** within the perspective of the current opioid environment, as well as opportunities for professional **networking**.

Visit uc.edu/about/opioidtaskforce for updates. Email kelly.lyle@uc.edu with questions.

 University of
CINCINNATI.

 Health.

Learning Objectives



- By the end of this presentation, you should be able to:
 - Describe the magnitude of the opioid crisis.
 - Discuss potential solutions to the opioid crisis.
 - **Consider the critical role of pharmacists in addressing the crisis.**



The Pharmacist's Role in Fighting the Opioid Crisis



- Recommendations from the 2018 meeting of ASHP's Commission on Goals:
 - Leadership in managing opioid use
 - Address the appropriate use of opioids and effective pain management
 - Tools, resources, education and training
 - Engaging medical staff and other clinicians
 - Optimize opioid prescribing practices
 - Adopting optimal multidisciplinary approaches to pain management and opioid prescribing
 - Clinical decision support systems
 - Opioid management in transitions of care
 - Prescription drug monitoring programs (PDMPs)
 - Reduce the amount of opioids unnecessarily prescribed



The Pharmacist's Role in Fighting the Opioid Crisis



■ Education and Training

- Education and training on effective pain management, including treating special populations and minimizing opioid risks
- Expanding the number of pharmacists with specialized pain management training (ie.; through residency programs)

■ Technology and Data

- Electronic health records: give guidance for healthcare staff and contain pain management order sets
- “The suggested strategies also provide guidance on the significant roles that departments of pharmacy and pharmacists serving as members of interprofessional teams can have in effecting the changes required to respond to the nation’s opioid epidemic.”



Can Pharmacy Students Make a Difference? **Yes!**



UC Opioid Dialogue: Transitioning from Talk to Action

Bradley R. Becker, PharmD Candidate 2020
Jennifer Scheer, PharmD Candidate 2020
James L. Winkle College of Pharmacy
University of Cincinnati

As I'm sure you're aware, the opioid epidemic in Ohio and across the country has been placed front and center by virtually every media source. However, meaningful and effective actions to stem the tide seemingly lag public discourse.

At the University of Cincinnati, students and faculty alike are finding, creating, researching, and implementing substantive programs to transform the fight from a war fought with words into one fought via medical means, rehabilitation, risk mitigation, and economic jurisprudence. Here you do not have to look very hard to witness the conversation becoming less concerned about discussing the issue, and more concerned with confronting it head-on.

Talbert House has been working with the City of Cincinnati, the University of Cincinnati, and other religious and civic organizations to host community-based training sessions to combat the heroin epidemic and overdoses occurring in Cincinnati's neighborhoods. Children, adults, and families across Southwest Ohio benefit from the services Talbert House provides towards its mission to improve social behavior and enhance personal recovery and growth.



Opioid prevention and naloxone training program at the James L. Winkle College of Pharmacy, University of Cincinnati

Jennifer Scheer and GenerationRx are currently collaborating with our Kappa Psi Chapter to organize and implement a blood borne pathogen prevention program. These programs directly reflect the patient-centered care model that we, as pharmacists, are trained to implement.

It requires mentioning that both naloxone use and clean needle exchange programs are not without criticism or debate, but a few rational thoughts and data points demonstrate the need for these crucial components of the fight against the opioid epidemic. Jennifer Scheer expressed her thoughts on this debate stating, "The controversy over Narcan stems from the discussion of whether we are allocating our money properly when some individuals need more reviving than others and there are people more deserving of the help. We strive to promote a platform that each life is important. Each life is someone's mother, father, or child. Each life is loved by someone. There are people who are given Narcan, wake up, and instantly make that life change. There are some people struggling more



☰ SHOW TRANSCRIPT

Nearly 100 free Narcan kits distributed in Cincinnati



Pharmacy & Medical Students Learning Together



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Dr. Neil MacKinnon, Dean & Professor



@RxDeanMac

