

Facing the Crisis in Tennessee and Looking Forward

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All presenters & advisors declare that they do not have any current financial disclosures.

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Learning Objectives

1. Identify key outcomes seen in Tennessee following targeted legislative efforts to address the opioid crisis.
2. Describe the shift seen in the drug epidemic in Tennessee over the last several years.

Important Legislative Efforts in Tennessee

Prescription Safety Acts of 2012 and 2016

- Dispensers must submit data each business day to CSMD
- Mandatory CSMD checks for prescribers & dispensers

TN Together (2018)

- Days supply and MME limitations
- Mandatory CSMD check every 6 months

Prescription Outcomes

Note: Updated CDC data was not available for 2019 analysis; once available, some numbers may change. Data from 2018 was used for outcomes most likely to be affected.

MME & Days Supply Limits

- MME reported decreased 53% (2012-2019)
- Opioids for pain decreased 38% (2012-2019)
- Patients receiving >120 MME decreased 52% (2012-2019)
- 58% of patients with an opioid prescription had 7 or fewer active prescription days in 2019

CSMD Checks/Other

- Potential doctor shoppers decreased 89% (2011-2019)
- 62% decrease in number of pain clinics (2014-2019)
- 171% increase in buprenorphine for OUD (2011-2018)
- 24% increase in stimulant prescriptions (2012-2018)

Overdose Data

- Only 40% of individuals who died of a drug overdose in 2018 had any controlled substance dispensed within the last 60 days
- Deaths involving:
 - All Opioids: Increased 3% (2017-2018)
 - Rx Opioids: Decreased 28% (2016-2018)
 - Stimulants: Increased 228% (2014-2018)
 - Heroin: Increased 148% (2014-2018)
 - Fentanyl: Increased 945% (2014-2018)

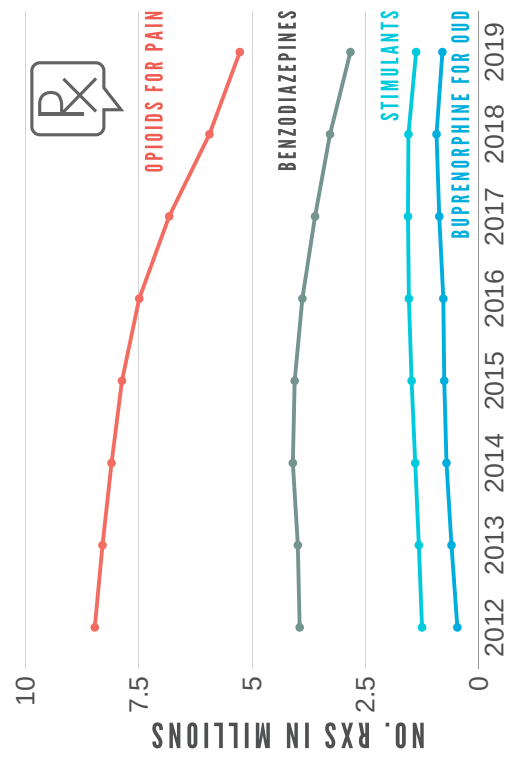
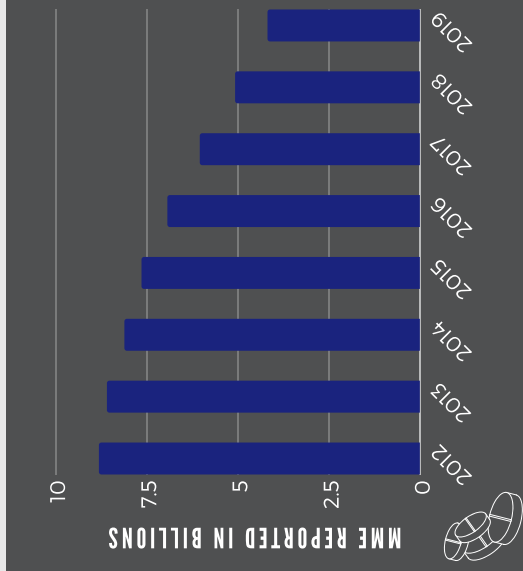
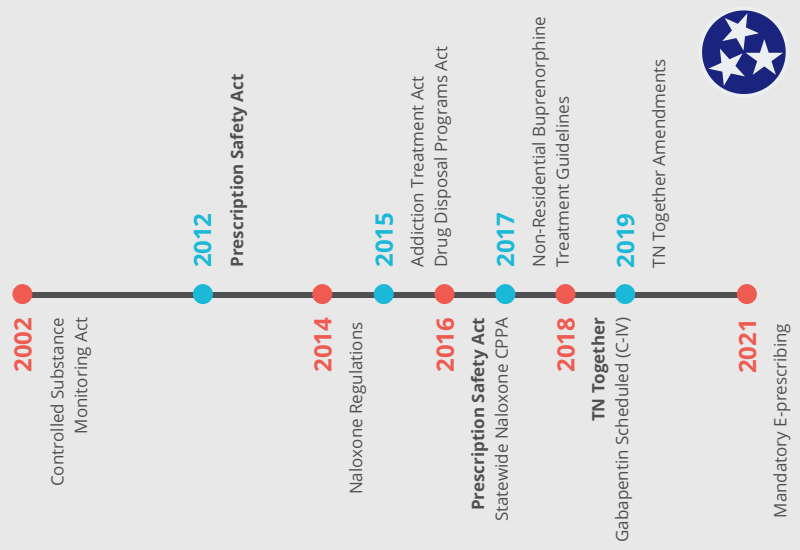
Next Steps

We have moved from an epidemic driven largely by prescription opioids to one that involves many other substances, including illicit opioids and stimulants. While we need to continue our momentum in reducing unnecessary opioid exposure, we also need to shift our focus to include all substances involved in this crisis. Moving forward, the accessibility of pharmacists should be better leveraged to provide education, screening, and early intervention at the point of care. Finally, we need greater pharmacist involvement in medication-assisted treatment to continue promoting quality treatment for patients with substance use disorders.

FACING THE CRISIS IN TENNESSEE

FORWARD

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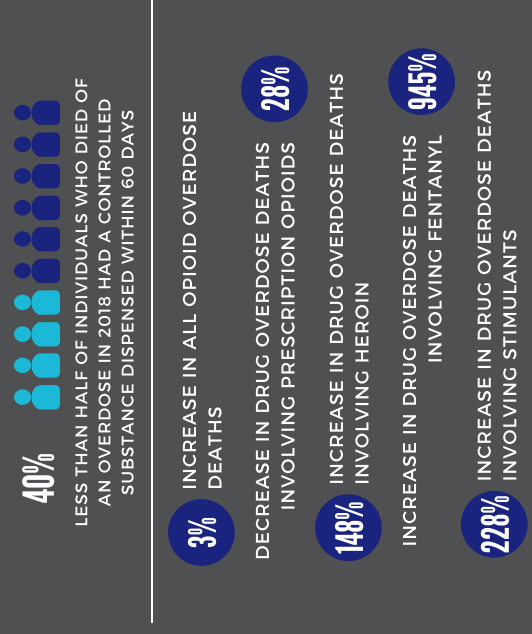


KEY OUTCOMES



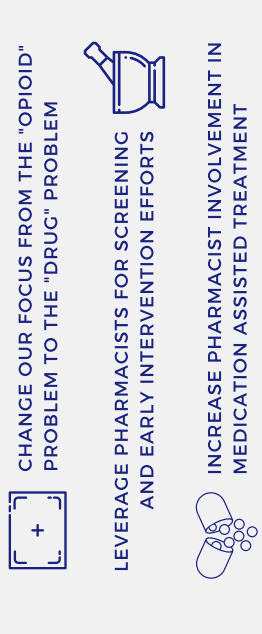
Note: Updated CDC data was not available for 2019 analysis; once available, some numbers may change. Data from 2018 was used for outcomes most likely to be affected.

OVERDOSE DATA



SHIFT FROM PRESCRIPTION PAIN RELIEVERS TO ILLICIT OPIOIDS AND STIMULANTS

WHAT'S NEXT?



PHARMACIST INVOLVEMENT IMPROVES OUTCOMES

Preventative Measures for HIV-Vulnerable Patients in the LGBTQ+ Community

By: Ryan Bernhardt and Andrea Buzakovic, PharmD Candidates,
Class of 2021, North Dakota State University School of Pharmacy

This presentation is brought to you today to discuss one of the leading public health concerns among the LGBTQ+ community. The human immunodeficiency virus, also called HIV/AIDS, is a disease that is contracted far too often among the LGBTQ+ community based on a variety of factors. Many of these factors can be prevented by ensuring that the public is educated on the transmission and spreading of this disease, along with non-pharmacological and pharmacological options. During this presentation, we would like to inform pharmacy professionals how they are able to inform the public about these different HIV preventative measures.

The learning objectives of this poster presentation are as follows: 1. Describe the health care challenges patients face by being part of the LGBTQ+ community and how these challenges may lead to a higher HIV infection rate among this community; 2. Compare and contrast the non-pharmacological and pharmacological measures available to help patients receive the best HIV preventative care; and 3. Identify how a pharmaceutical professional can help patients within the LGBTQ+ community receive the best preventative care possible. Our hopes are that after this presentation has concluded, pharmacy professionals will be able to better help patients prevent HIV infection.

Thank you,

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Preventative Measures for HIV Vulnerable Patients in the LGBTQ Community

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Background

HIV is one of the largest public health concerns among the LGBTQ community.

- According to the Center for Disease Control¹:
 - 1.2 million people are living with HIV in the United States
 - 1 in 6 gay and bisexual men will potentially be diagnosed with HIV if current trends continue
 - Transgender women have 49 times the odds of living with HIV in certain communities vs the rest of the general population

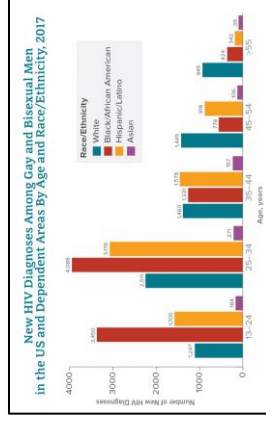


Figure 1: From new diagnoses based on race/ethnicity in 2017²

Preventative Measures

Ways to reduce rate of HIV infection³:

- Know your sex partners
 - HIV positive?
 - Undetectable viral load?
- Use protection during sexual intercourse
 - Ex. Condoms
- Get tested for STI's frequently if participating in risky behaviors
 - HIV is more transmittable if other STI's are present
- Education on HIV transmission
 - Blood
 - Breast milk
 - Vaginal fluids
 - Semen
 - Rectal Fluids

Pre-Exposure Prophylaxis (PrEP)

Truvada⁴:

- Emtricitabine 200 mg/ tenofovir disoproxil fumarate 300 mg
- Used in addition to safe sex practices to reduce the risk of HIV infection
- Qualifications for PrEP:
 - Negative HBV test
 - Negative HIV test
 - Tested for HIV every 3 months while on the medication to ensure HIV negative status
- If questionable exposure, contact a healthcare provider immediately
 - If HIV positive, additional medication therapy is required to fight the infection

Efficacy:

- According to the iPREx study:

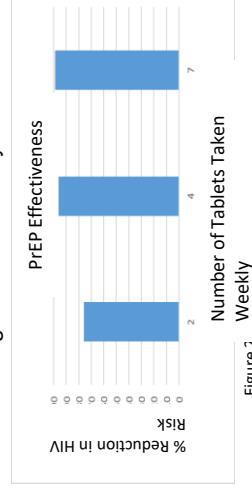


Figure 2

Coverage/Payment⁵:

- Cost for Truvada depends on your specific insurance plan, however Gilead Advancing Access has multiple options for patients:
 - The co-pay coupon card covers up to \$7,200 in co-pays per year if you have commercial insurance
 - If you do not have insurance, there are Medication Assistance Programs to help with medication cost

Breaking News

Descovy⁶:

- FDA approved new PrEP medication on October 3rd, 2019
 - Emtricitabine 200 mg/ tenofovir alafenamide 25 mg
- Tenofovir alafenamide:
 - Considered better for patients with renal impairment
 - Considered better for patients with bone diseases such as osteoporosis

California Senate Bill No. 159⁷:

- Approved by the Governor of California on October 7th, 2019
 - Authorizes a pharmacist to prescribe PrEP and PEP under certain circumstances

Conclusion

When considering preventative measures for HIV exposure it is critical to include not only pharmacological options, but also non-pharmacological options to further protect patients from this life-altering virus. It is crucial that the public has a background understanding of this disease along with different ways to avoid transmission. Pharmacists can play a role in helping LGBTQ patients by using consultation strategies to prevent infection.

References

- Human Rights Campaign. HIV and the LGBTQ Community. Human Rights Campaign. Accessed September 20, 2019. Available from: <https://www.hrc.org/resources/hiv-issue-brief-hiv-aids-and-the-lgbtq-community>.
- Centers for Disease Control and Prevention. HIV and the LGBTQ Community. Accessed September 26, 2019. Available from: <https://www.cdc.gov/hiv/resources/qa/hiv-and-the-lgbtq-community.html>.
- Carle Hoggill A, J. Koester K, Kimberley C, Cohen S, Stephanie, Buchbinder S, Susan, Lutzke, DeWolfe, M, Johnson, Tim, and Liu, Albert. Sexual Behavior, Risk Compensation and HIV Prevention Strategies Among Participants in the San Francisco Men's Health Study. *Journal of Acquired Immune Deficiency Syndromes*. 2019; 20(1): 1-10.
- Grant, Robert M., Javier R. Lama, Peter L. Anderson, Vanessa M. Maman, Albert Y. Liu, Lorena Vargas, Pedro Pablo Kieffer, et al. Pre-Exposure Prophylaxis in Men Who Have Sex with Men. *New England Journal of Medicine*. 363, no. 2 (2010): 2587-99.
- Learn about TRUVADA® (Emtricitabine 200mg and Tenofovir Disoproxil Fumarate 300mg) Tablets at www.gilead.com. Truvada. Accessed September 20, 2019. Available from: <https://www.gilead.com/How-to-get-Truvada>.
- FDA Approves Second Drug to Prevent HIV Infection as Part of Ongoing Efforts to End the HIV Epidemic. U.S. Food and Drug Administration. FDA. Accessed October 31, 2019. Available from: <https://www.fda.gov/news-events/press-announcements/fda-approves-second-drug-prevent-hiv-infection>.
- Bill Text - SB 159 HIV, pre-exposure and post-exposure prophylaxis. Accessed October 31, 2019. Available from: http://leginfo.ca.gov/pub/09_10_01_bill_001501_0160.html.

Outbreak Ready Initiative:

Pharmacists Ensuring Community Resilience In Washington, DC

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Financial Disclosure

The presenters declare that neither they nor any of their immediate family members have a current affiliation or financial arrangement with any organization that may have a direct interest in this activity.

Learning Objectives

- 1. Discuss the role of a pharmacy-based medical reserve corps
- 2. Recognize vulnerable populations during emergent public health threats
- 3. Demonstrate how pharmacy students can mitigate an emergent public health outbreak

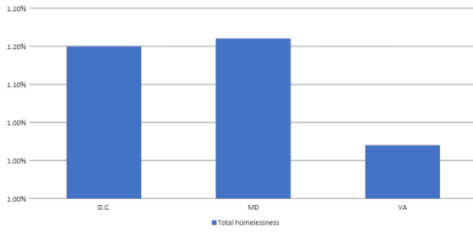
Summary

The Medical Reserve Corps (MRC) is a national network of volunteers, organized locally to improve the health and safety of their communities. Howard University College of Pharmacy students established the first nationally recognized pharmacy-based MRC in 2013. Capitol City Pharmacy Medical Reserve Corps (CCPMRC) was developed to recruit and train volunteers to provide pharmacy-related functions during an emergency situation. This unique MRC has a close relationship with the Department of Health and Human Services, which allows the organization to provide services for vulnerable populations in DC.

Vulnerable Populations



Homelessness in DC



The Outbreak Ready Initiative was established to enhance the public health infrastructure through a dual approach of targeted education and enhanced training of the pharmacy workforce.

- CCPRMC hopes to achieve this by:
- ★ Training a minimum of 25 pharmacy students on how to prevent, mitigate, and respond to a public health outbreak
 - ★ Educating 100 homeless individuals on emerging public health outbreaks & infectious diseases

CCPMRC in Action

CCPMRC collaborates with various organizations to improve the health and safety of DC residents.



PrepareDC: Monthly Community Outreach



Mass Immunization Clinics



Annual Training Symposium

Maximizing HPV Vaccination Rates Through Community Pharmacist Utilization

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Financial disclosures

Amanda DeWitt and Sydney Mosher declare that neither they nor any of their immediate family members have a current affiliation or financial arrangement with any organization that may have a direct interest in the subject matter of this CPE activity.

Learning objectives

- Identify complications of HPV infection and understand the importance of the HPV vaccination.
- Discuss common barriers that pharmacists face regarding administering HPV vaccinations in the community settings.
- Identify ways pharmacists can increase HPV vaccination rates.

Main points

- HPV is the most common sexually transmitted infection in the US with unfavorable outcomes such as genital warts and cancer.
- Everyone should be vaccinated before becoming sexually active. Beginning the multi-dose vaccine series should occur around age 11-12.
- The Healthy People 2020 goal for HPV prevention is an 80% HPV vaccination rate for teenagers aged 13-15. No state is close to this goal.
- Pharmacists, as the most accessible health care provider, are currently being underutilized in increasing HPV vaccination rates.
- Barriers to care for pharmacists include the vaccination being a multi-dose series, stigma from parents, and understaffing inside the pharmacy.
- Pharmacists can increase vaccination rates by collaborating with local providers, educating parents, and having adequate staff and vaccines on hand.

Self-assessment questions

- 1) What is the recommended age range to begin the HPV vaccine series?
 - a) 8-9 years old
 - b) 11-12 years old
 - c) 14-15 years old
 - d) 18-19 years old
- 2) Parents can be a barrier to younger patients receiving vaccinations at pharmacies.
 - a) True
 - b) False

Maximizing HPV Vaccination Rates Through Community Pharmacist Utilization

Amanda DeWitt & Sydney Mosher, Pharm D. Candidates Class of 2021
North Dakota State University, Fargo, ND

Introduction

What is HPV and how is it transmitted?

- Most common sexually transmitted infection in the US.
 - Most often goes away without causing problems, but it can be spread or develop into genital warts or cancer.¹
- What is the prevalence of HPV and why is this a problem?**
- 79 million Americans are currently infected.¹
 - The virus is so common that almost every person in the US will get HPV if they are sexually active and have not received the vaccine.
 - Most people do not know they have it until they show signs of genital warts or cancer (including cervical, vaginal, vulvar, anal, and oropharyngeal).²

Vaccination

- **EVERYONE** should be vaccinated **BEFORE** becoming sexually active as vaccine effectiveness is substantially less after exposure to the virus. Beginning the multi-dose vaccine series should occur around age 11-12.³
- Only 5 out of 10 adolescents have completed the series.⁴
- The Healthy People 2020 goal for HPV prevention is 80% HPV vaccination rate for teenagers aged 13-15.⁵
- Vaccination rates for the years of 2016 and 2017 are shown below in Figure 1.
- **By increasing the vaccination rate to 80%, 53,000 cases of cervical cancer could be prevented in girls currently 12 years old.**⁶ Unfortunately, no state is close to the goal of 80% as shown in Figure 2.

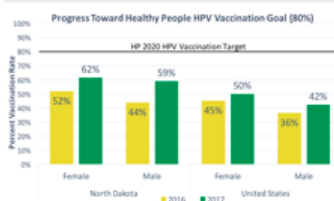


Figure 1. Progress toward healthy people 2020 goal.
Source: HealthyPeople.gov

Underutilization of Pharmacists

- 250 million visits made to pharmacies each week, and ~93% of Americans live within 5 miles of a pharmacy.
- Do not require appointments and have convenient hours of operation.⁶
- As seen in Figure 3, pharmacists in North Dakota are not being utilized to provide HPV vaccines.

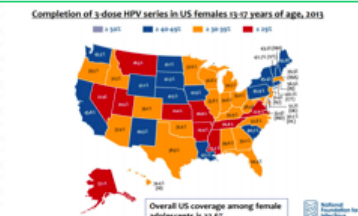


Figure 2. No state comes close to meeting healthy people goal of 80%.
Source: CDC MMWR Wkly Rep. 2014;63:29.

Barriers to Care

Multi-Dose Series

- Some patients do not complete all the doses due to lack of education, forgetting additional doses, or not wanting to complete the series.⁷

Parents

- Only ~29% of parents are willing to let their child get the HPV vaccine at a pharmacy.⁶
- Due to concerns about pharmacist training, infrastructure of the pharmacy, and not having a good relationship with the pharmacist.³
- Not always properly educated on the benefits of the vaccine.

Pharmacy Related

- Under staffing, including shortages of pharmacists, technicians, and clerks, can make it harder for the pharmacy to have time to promote the vaccine and perform vaccinations.
- Not having the vaccine on hand when a patient comes into the pharmacy could cause the patient to get it at a clinic or to not get it at all.

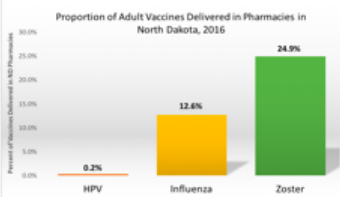


Figure 3. Low HPV vaccination in ND pharmacies.
Adapted from ND Dept of Health, 2017.

What Pharmacists Can Do Today

Figure 4 below summarizes the following:

Multi-Dose Series

- Collaborate with providers to facilitate completion of the series.⁷
- Utilize a tracking system to alert patients about upcoming vaccines.⁸

Parents

- Spend time educating parents about the benefits of the vaccine, address questions, and provide additional information⁸

Pharmacy Related

- Train all pharmacy staff to conduct immunization screenings during daily interactions or check NDIIIS/MIIC.^{9,5}
- Initiate a shot clinic before school starts.
- Have at least 1 vaccine on hand and more if needed.
- Address and lower vaccination costs by helping with co-pay coverage and patient assistance programs for any uninsured patients.⁵

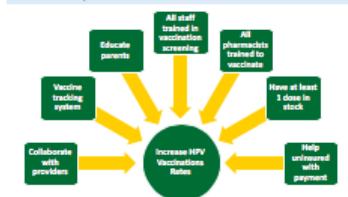


Figure 4. Strategies to increase HPV vaccination rates 5 6 7 8 9

CONCLUSIONS

HPV is the most common sexually transmitted infection in the US with unfavorable outcomes such as genital warts and cancer, yet vaccination rates remain surprisingly low. Pharmacists have the training and experience to increase HPV vaccination rates in the country. Therefore, pharmacists need to be willing to focus on working towards defeating barriers to provide more HPV vaccines and better the healthcare provided to their patients.

REFERENCES

- [illegible]

Title: ONE Rx: Community Pharmacy-Based Screening and Interventions for Opioid Misuse and Accidental Overdose

Presenter Information

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Disclosure: Jayme Steig and authors declare that they have no current financial disclosures.

Objectives

1. Describe the ONE Rx program process utilizing pharmacists to screen, evaluate, and provide appropriate interventions to patients receiving opioid prescriptions.
2. Understand the impact of ONE Rx on program outcomes, including naloxone dispensing, medication take back, and risk education.

Summary

The ONE Rx (Opioid and Naloxone Education) project has provided pharmacists in North Dakota with training, screening tools, and interventions to assess risk and provide appropriate patient education and interventions to reduce opioid misuse and overdose. ONE Rx includes a patient-completed screening for opioid misuse risk (Opioid Risk Tool) and/or overdose risk (comorbidities and concomitant medications), a triage tool to aid pharmacists in assessing results, and suggested interventions, including prescribing naloxone, referral to treatment, partial fill, and screening for opioid risks. From October 2018 to October 2019, over 4,600 North Dakotans with an opioid prescription were screened for opioid misuse and overdose risk at 37 pharmacies. Outcomes include 7% of those at risk for overdose receiving naloxone, 88% being introduced to medication take back, and opioid use disorder being discussed with 49% of those at risk. ONE Rx screening and interventions take less than six minutes on average. Collaboration has occurred between ONE Rx pharmacies and local public health. The training, screening, and interventions can be applied in any state and other practice settings.

Self-Assessment Questions

1. Which screening device is used in ONE Rx to identify risk for opioid use disorder?
 - a. Comorbidities
 - b. Concomitant medications
 - c. Opioid Risk Tool (ORT)
 - d. CDC opioid prescribing guidelines
2. ONE Rx interventions include:
 - a. Recommending naloxone
 - b. Referral to substance use disorder treatment
 - c. Education on medication disposal/take back
 - d. All of the above

Website: www.onerxproject.org



ONE Rx: Community Pharmacy Based Screening and Interventions For Opioid Misuse and Accidental Overdose

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North Dakota State University College of Health Professions

Objectives

1. Describe the ONE Rx program process utilizing pharmacists to screen, evaluate, and provide appropriate interventions to patients receiving opioid prescriptions.
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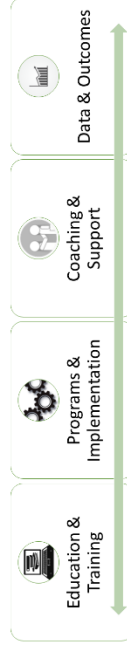
Background

- Nearly half of all opioid overdose deaths involve a prescription opioid (CDC).
- Many of those abusing prescription opioids or heroin had a prescription medication as their entry point
- Naloxone provided to 1.5% of those filling high dose opioid in 2018
- Barriers cited by pharmacists to properly address upstream prevention:
 - Lack of confidence
 - Limited training
 - Lack of time

ONE Rx Overview

A program titled ONE Rx (Opioid and Naloxone Education) has been implemented across North Dakota. ONE Rx implements patient screening for opioid misuse and accidental overdose within the community pharmacy for all patients receiving an opioid prescription. The initial pilot occurred in 2017 with expansion throughout North Dakota beginning in October 2018. It is supported by a grant from the ND Department of Human Services.

The program was developed with four core principles:

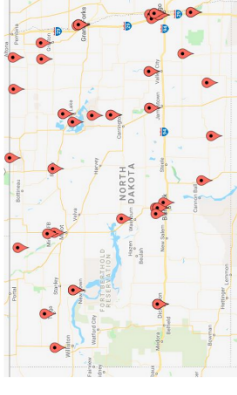


References

- Compton et al. Prescription opioid abuse: problems and responses. *Prev Med.* 2015;80:5-9.
Cicero et al. The changing face of heroin use in the United States. *JAMA Psychiat.* 2014;71(7):821-826.
Guy GP. Vital Signs: Pharmacy-Based Naloxone Dispensing — United States, 2012–2018. *MMWR Morb Mortal Wkly Rep.* 2019;68.
Hagemeyer NE, Murawski MM, Lopez NC, Alamian A, Pack RP. Theoretical exploration of Tennessee community pharmacists' perceptions regarding opioid pain reliever abuse communication. *Res Soc Adm Pharm.* 2014;10(3):562-575. doi:10.1016/j.sapharm.2013.07.004
Knowledge, Attitudes and Practices of Pharmacists Concerning Prescription Drug Abuse: *Journal of Psychoactive Drugs: Vol 38, No 3.*
Pharmacist's Role in Dispensing Opioids for Acute and Chronic Pain - Karen F. Marlowe, Richard Geiler, 2012.

Results

From October 2018 to October 2019



Patient Characteristics

Characteristics of patients screened through ONE Rx (n=4,688)		Proportion
Average Age		49.3 years
Gender		54.8% female
Medical history of depression (self-reported)		22.6%
Medical history of anxiety (self-reported)		21.8%
Report taking anti-anxiety, muscle relaxer, or sleep aid medication		32.4%
At risk for opioid use disorder (ORT score ≥ 8)		3.9%
At risk for accidental overdose risk (n=4417)		23.4%
Received another opioid prescription in last 60 days (n=4537)		37%

Interventions

Pharmacist-provided interventions		Proportion
Interventions Independent of Risk		
Introduced to the medication take-back program at the pharmacy (n=4,438)		88%
Filled partial quantity of opioid prescription (n=2,637)		6.3%
Time to complete intervention		5 minutes
Critical interventions for At-Risk Individuals (n=1,741)		
Provided community support services information or referral		12%
Dispensed naloxone		7%
Prescriber was contacted		2.3%

Summary

Opioid & Naloxone Education (ONE Rx) has been implemented on a statewide basis and has demonstrated:

- Effective and efficient screening for opioid misuse and overdose risk in community pharmacies
- Appropriate actions taken by pharmacists utilizing validated tools
- Increase in dispensing of naloxone to at-risk individuals
- Core principles that can be spread geographically and programmatically

Screening

Screening occurs for both risk of opioid use disorder and opioid overdose. Misuse uses the validated Opioid Risk Tool (ORT) and overdose screening is based on comorbidities, concomitant medications, and PDMP review.

Assessment

A triage tool was developed to aid pharmacist to identify the appropriate interventions. ORT risk starts the triage, followed by identification of red flags, and finally risk of accidental overdose.

Interventions

Resources were provided to pharmacists to assist with providing appropriate interventions based on assessment results: pharmacies were connected to their local public health units to provide no/low cost naloxone, the ND Board of Pharmacy medication disposal program was promoted, educational materials from ND Department of Human Services were distributed to participating pharmacies, and links to search for community resources were made available in the ONE Rx provider manual.

