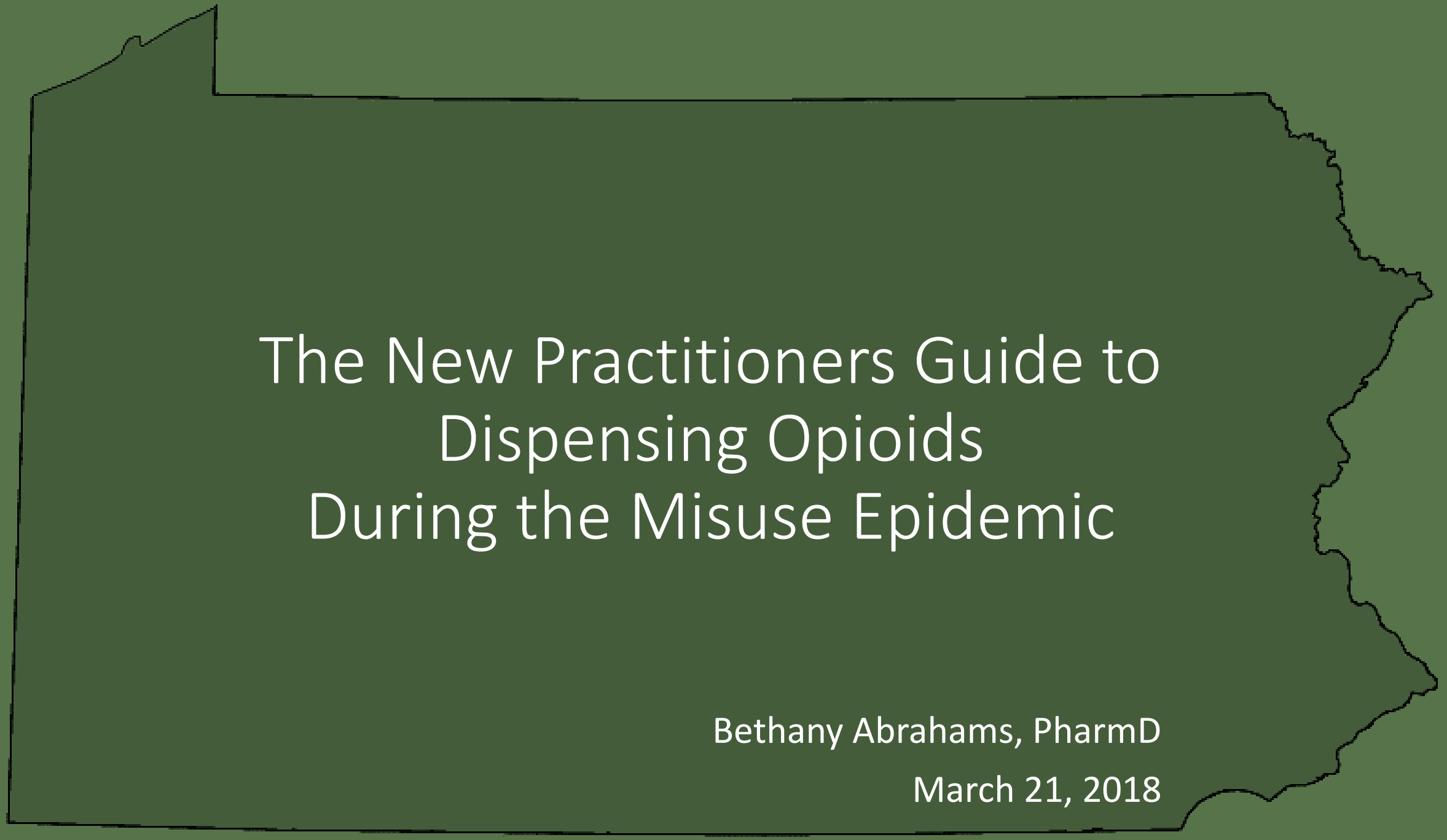


The New Practitioners Guide to Dispensing Opioids During the Misuse Epidemic

Bethany Abrahams, PharmD

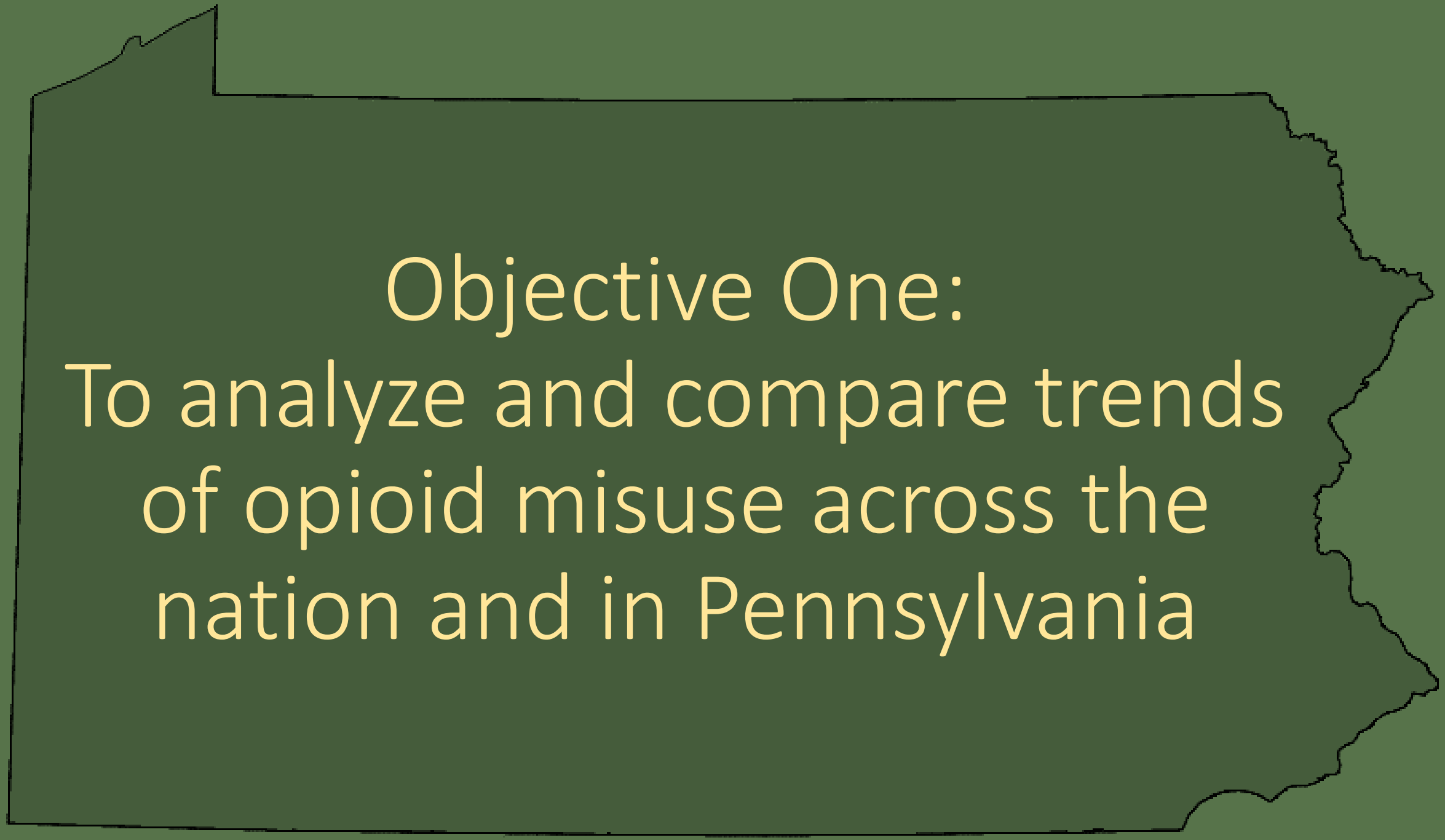
March 21, 2018

Disclosure

I, Bethany Abrahams, have no conflicts of interest or financial relationships to disclose.

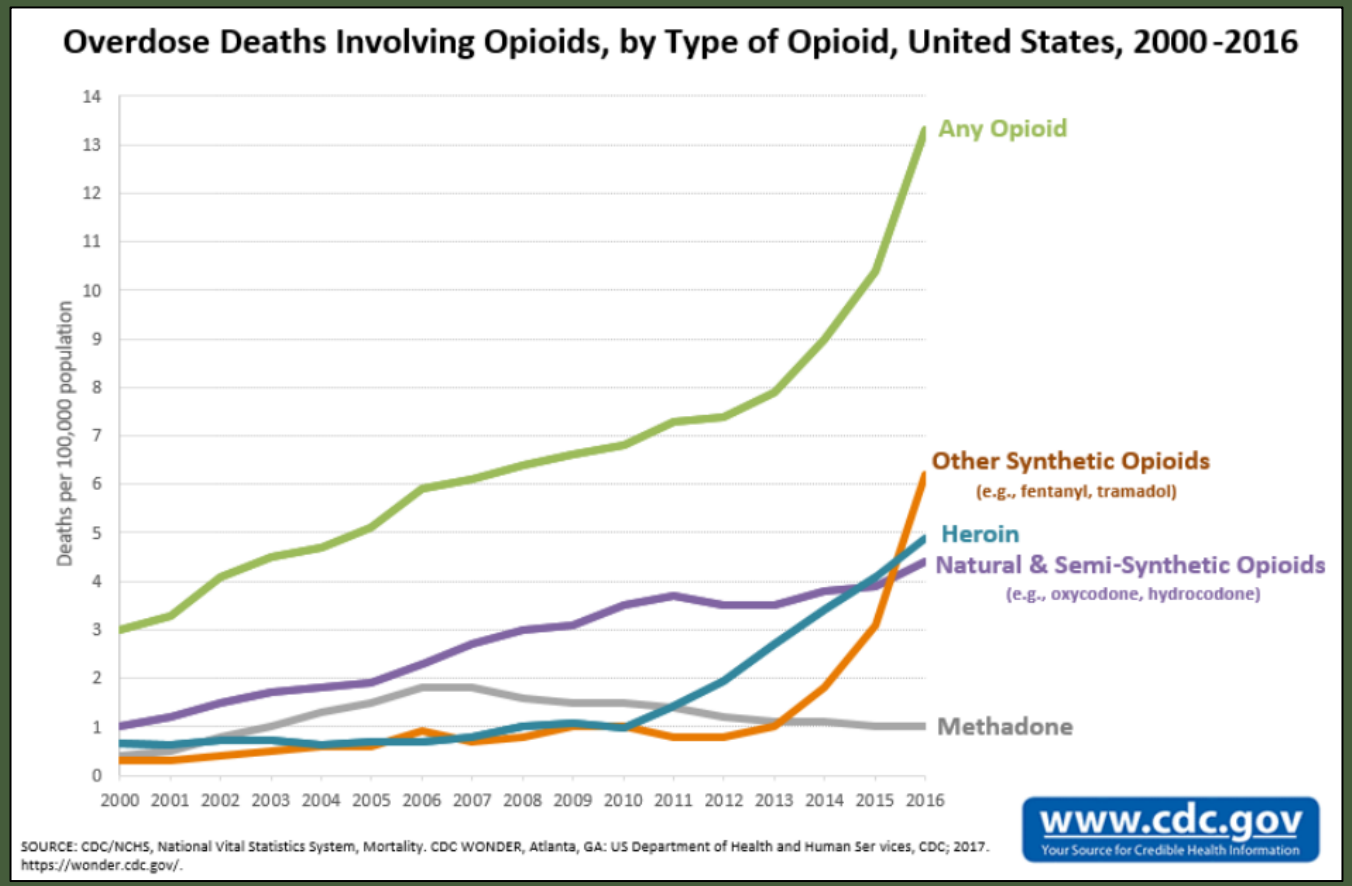
Objectives

- To analyze and compare trends of opioid misuse across the nation and in Pennsylvania
- To discuss the Achieving Better Care by Monitoring All Prescriptions Program Act (ABC-MAP) as it pertains to pharmacy practice in the state of Pennsylvania
- To identify and demonstrate the use of resources available to assist pharmacists in the dispensing of medications commonly misused
- To illustrate prescribing patterns that are indicative of prescription misuse



Objective One:
To analyze and compare trends of opioid misuse across the nation and in Pennsylvania

National Landscape



- Opioid deaths were five times higher in 2016 than in 1999
- Deaths from synthetic opioids doubled between 2015 and 2016. Illegal fentanyl is the primary agent responsible for these deaths.
- 115 Americans die every day from opioid overdose
- Four times as many opioids were sold in 2010 compared to 1999

https://www.cdc.gov/drugoverdose/epidemic/index.html

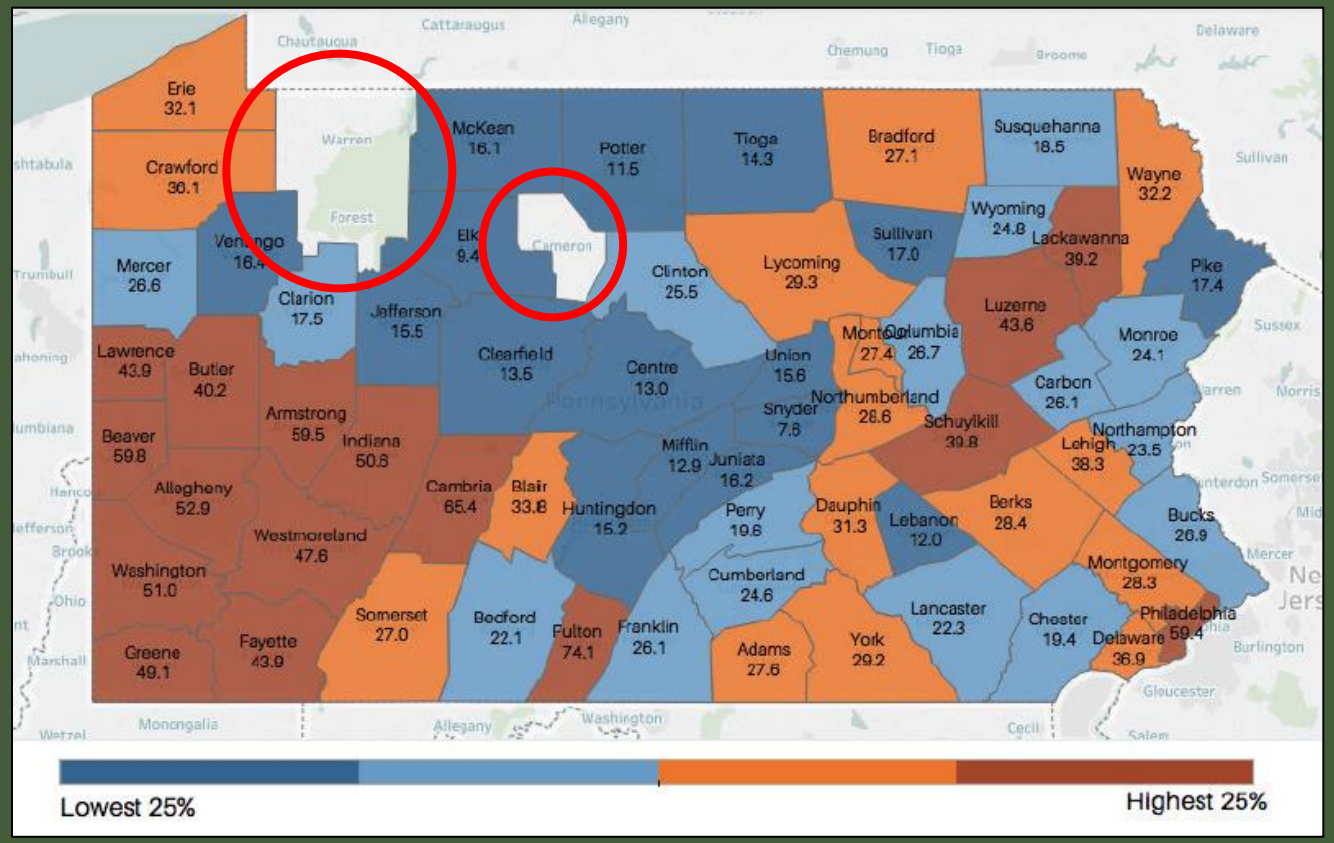
Pennsylvania Landscape

- 4,642 deaths in 2016 (approx. 13 people per day)
- 4th highest rate of death due to drug overdose in 2016
- 4th highest rate of increase from 2015-2016

2016 Rank	State	2016 overdose deaths per 100,000 people	Increase 2014-2015	Increase 2015-2016
1	West Virginia	52.0	16.9%	25.3%
2	Ohio	39.1	21.5%	30.8%
3	New Hampshire	39.0	30.9%	13.7%
4	**Pennsylvania**	**37.9**	**20.1%**	**44.1%**
5	Kentucky	33.5	21.1%	12.0%

https://www.cdc.gov/drugoverdose/data/statedeaths.html
Analysis of Overdose Deaths in Pennsylvania, 2016. Joint report of the DEA Philadelphia Division and the University of Pittsburgh.

2016 Drug Overdose Deaths by County per 100,000 people

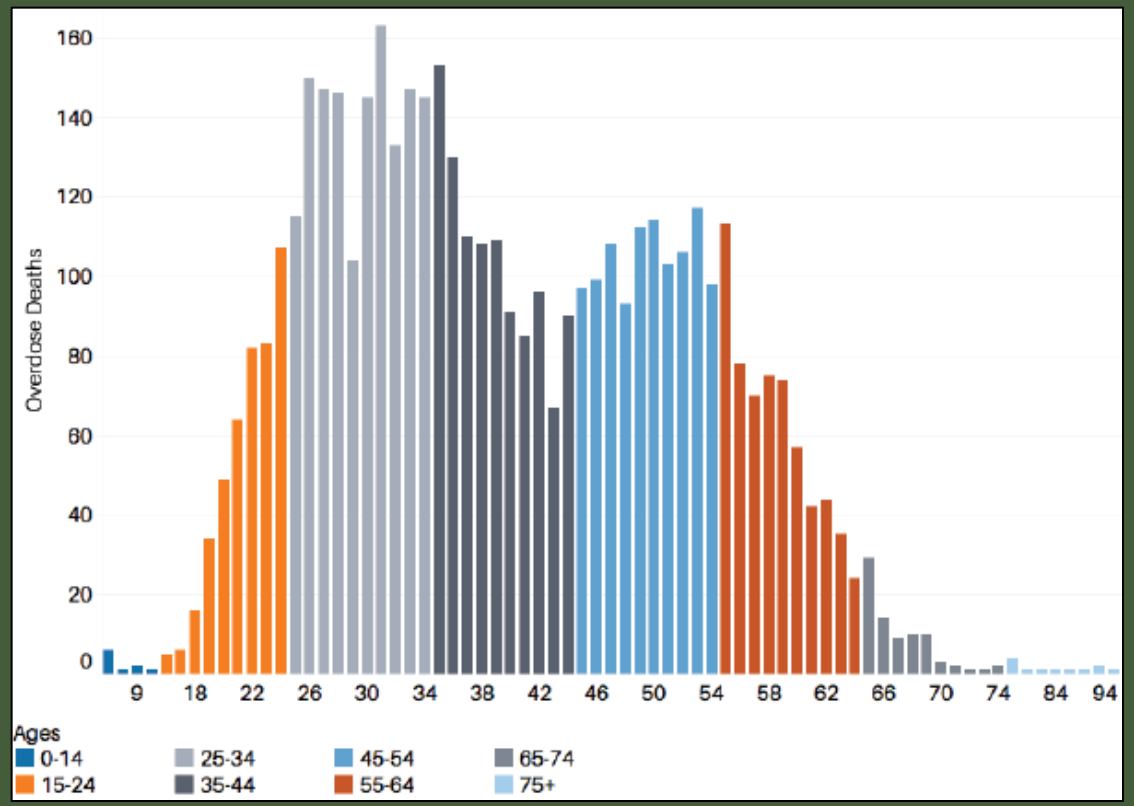


2016 Rank	County	Rate per 100,000
1	Fulton	74.1
2	Cambria	65.4
3	Beaver	59.8
4	Armstrong	59.5
5	Philadelphia	59.4
6	Allegheny	52.9
7	Washington	51.0
8	Indiana	50.6
9	Greene	49.1
10	Westmoreland	47.6

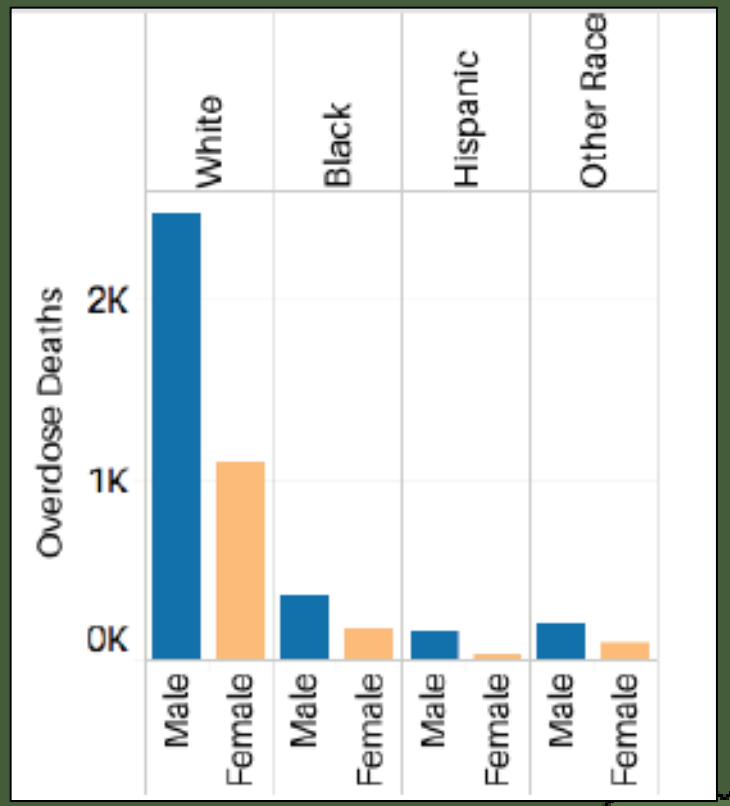
Analysis of Overdose Deaths in Pennsylvania, 2016. Joint report of the DEA Philadelphia Division and the University of Pittsburgh.

Demographics of PA Overdose Deaths in 2016

Age

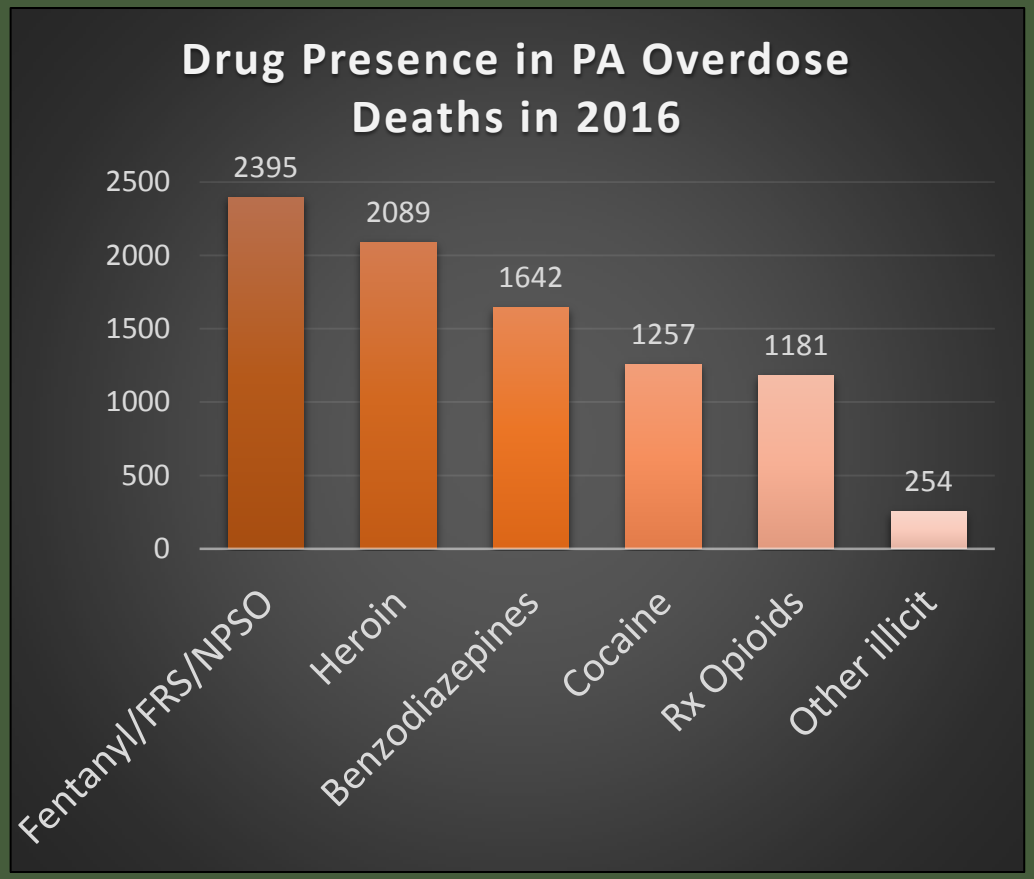


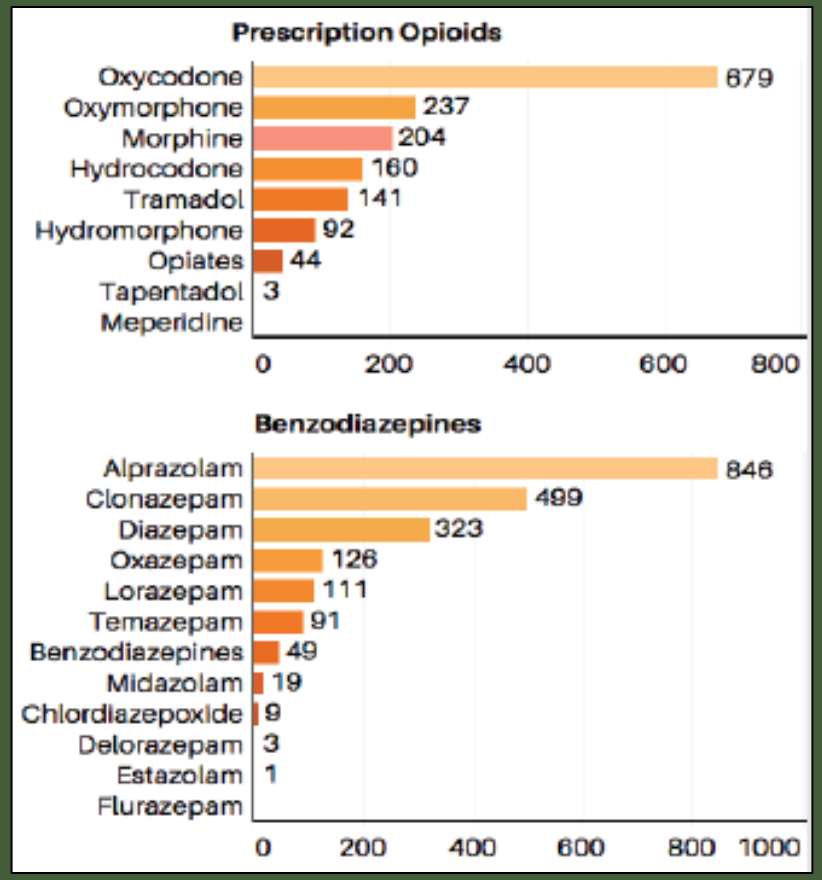
Gender and Race



Analysis of Overdose Deaths in Pennsylvania, 2016. Joint report of the DEA Philadelphia Division and the University of Pittsburgh.

Drugs Related to PA Overdose Deaths in 2016





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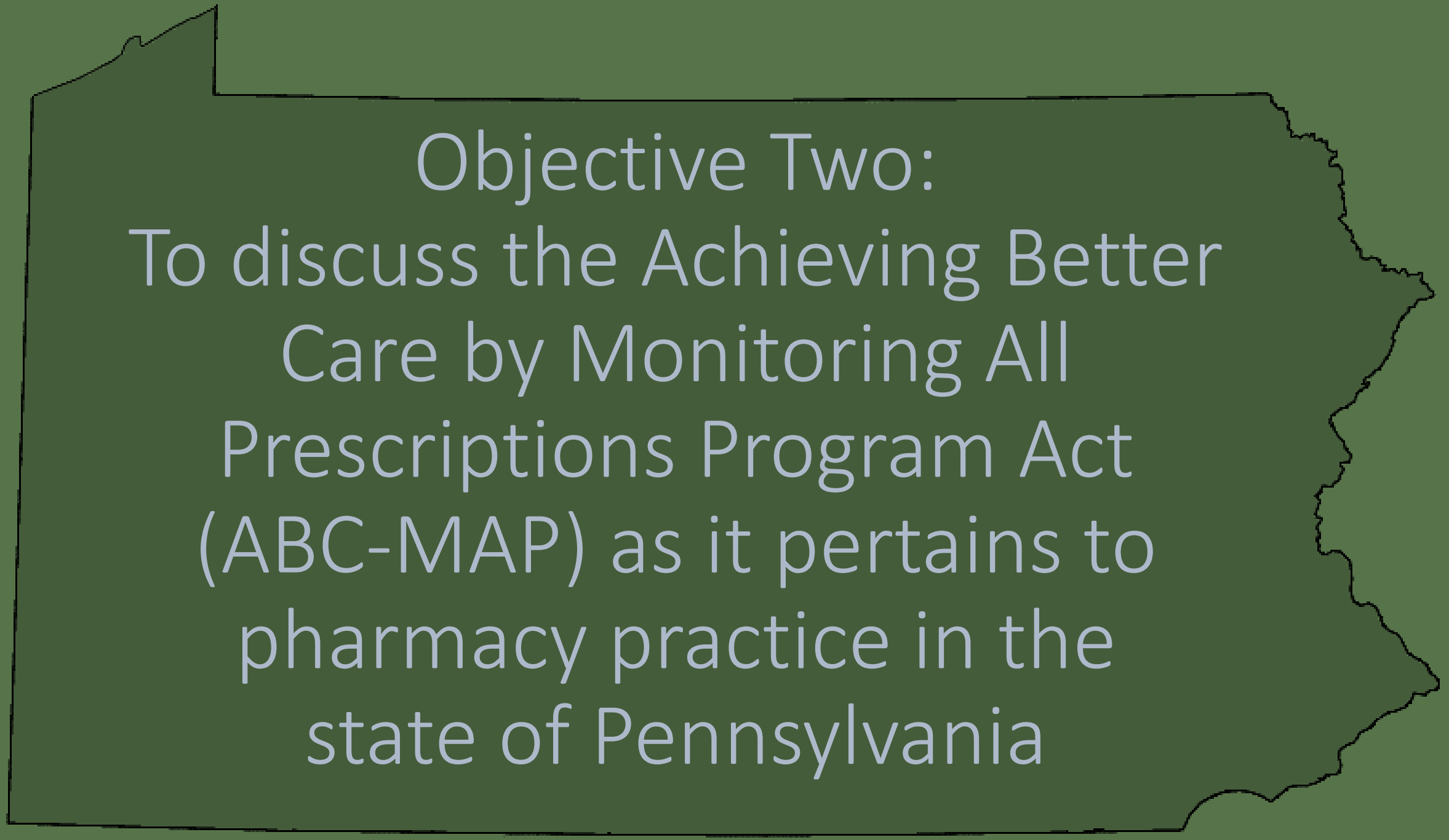
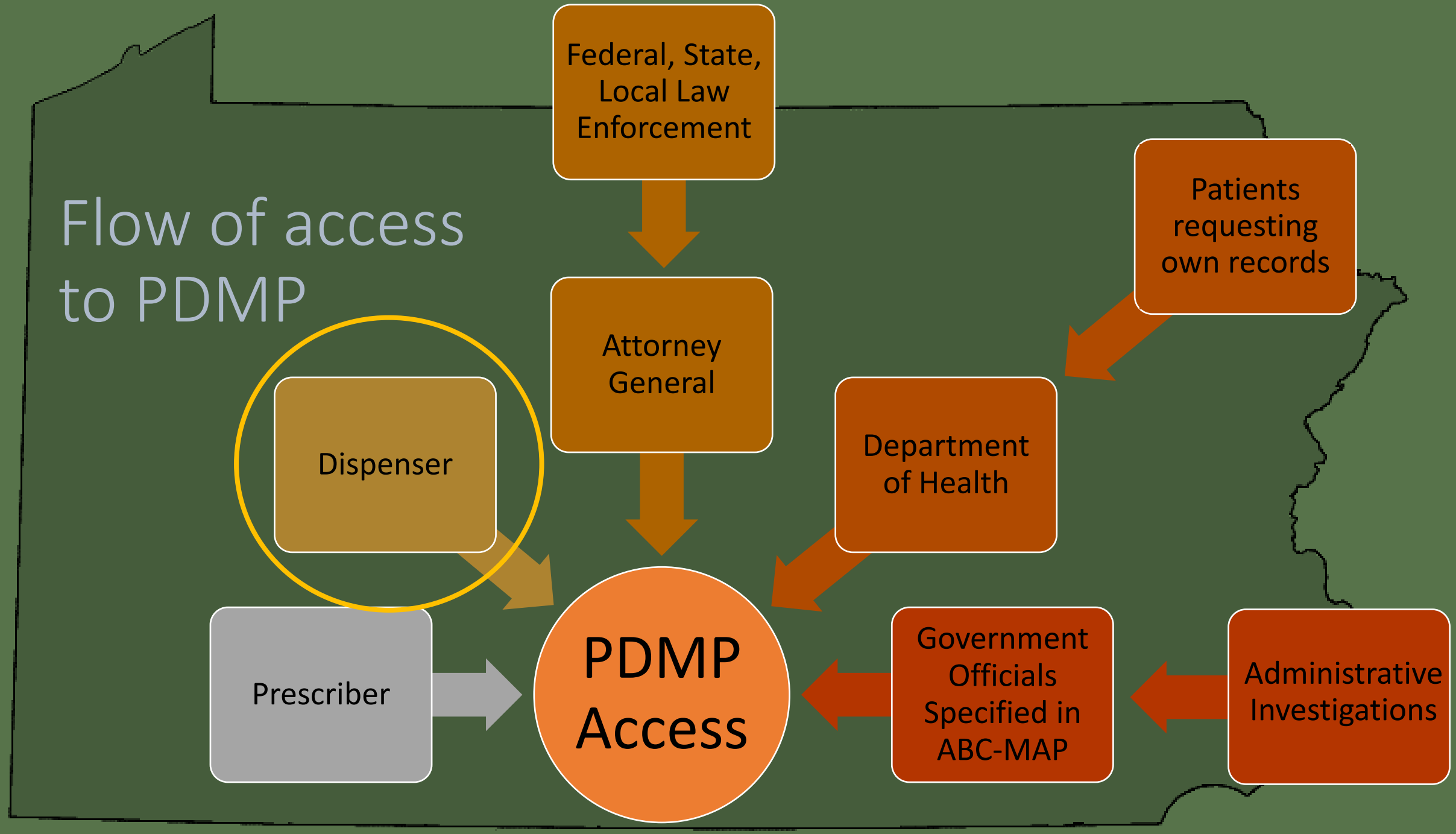

Objective Two:
To discuss the Achieving Better Care by Monitoring All Prescriptions Program Act (ABC-MAP) as it pertains to pharmacy practice in the state of Pennsylvania

Achieving Better Care by Monitoring All Prescriptions Program (Act 124)

- Timeline
  - Passed October 27, 2014
    Fully effective June 30, 2015
  - Amended November 2, 2016
    Fully effective January 1, 2017
  - Expires June 30, 2022
- Applies to
  - Prescribers
  - Dispensers and pharmacies
- Purpose
  - Improve patient care
  - Provide access to an electronic Prescription Drug Monitoring Program (PDMP)
  - Provide patients with access to records their records
  - Assist regulatory and law enforcement in detecting and preventing fraud, drug abuse, and diversion of controlled substances

http://www.legis.state.pa.us/cfdocs/legis/li/uconsCheck.cfm?yr=2014&sessInd=0&act=191
http://www.legis.state.pa.us/cfdocs/legis/li/uconsCheck.cfm?yr=2016&sessInd=0&act=124

Flow of access to PDMP



Who is considered a dispenser?

YES

- "Person lawfully authorized to dispense"
- Includes mail order and internet pharmacies

NO

- Health care facility administering onsite
- Correctional facility and its contractors
- Person administering a medication
- Wholesale distributor
- Provider in the LIFE program (Living Independently For Elders)
- Prescriber in a health care facility dispensing a maximum of 5 days supply with no refills
- Veterinarian

http://www.legis.state.pa.us/cfdocs/legis/li/uconsCheck.cfm?yr=2014&sessInd=0&act=191
http://www.legis.state.pa.us/cfdocs/legis/li/uconsCheck.cfm?yr=2016&sessInd=0&act=124

Pharmacy PDMP Activities

Inform

1. Written notice of the monitoring program
   - How to review and correct information
   - May be posted at site or handed to patients
2. Must use form created by ABC-MAP Board. See reference #1

Query

1. Dispensers must check PDMP before dispensing a benzodiazepine or opioid when patient is:
   - New
   - Paying cash but has insurance
   - Requesting refill early
   - Prescribed opioids or benzodiazepines from more than one prescriber
2. May query for any patient when deciding whether to dispense or not

Report

1. Electronically report each controlled substance dispensed
2. Reporting must occur no later than closing time the following business day

Protect

1. All information is confidential
2. **Nonviolation**: If a patient is not suspected of abusing or diverting, there is no penalty for not performing a query that is not otherwise required
3. **Immunity**: No civil liability or action against license for submitting, receiving, or not seeking information as long as confidentiality and other requirements are met

http://www.legis.state.pa.us/cfdocs/legis/li/uconsCheck.cfm?yr=2014&sessInd=0&act=191
http://www.legis.state.pa.us/cfdocs/legis/li/uconsCheck.cfm?yr=2016&sessInd=0&act=124

Licensure Requirements

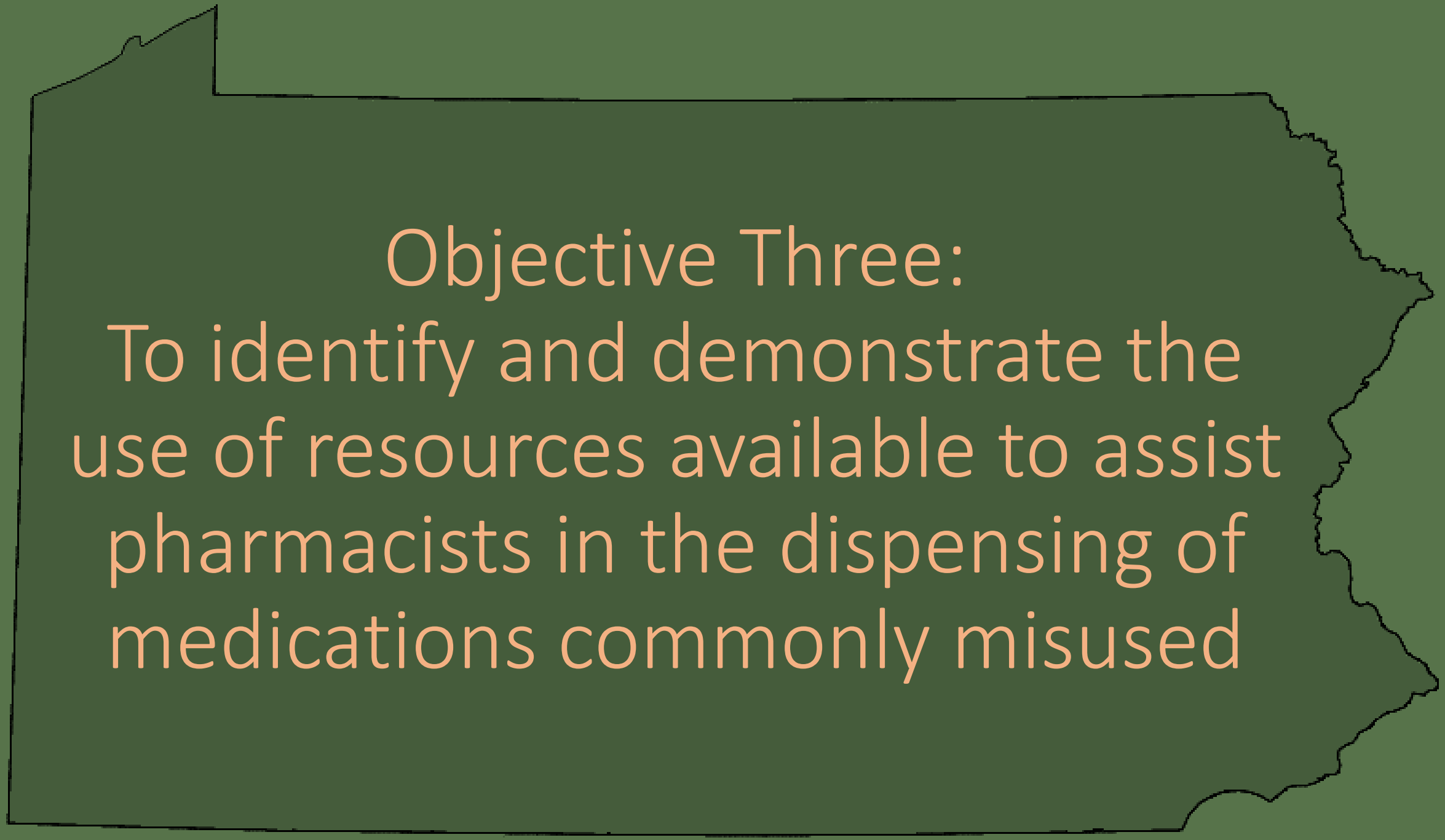
Initial Licensure after July 1, 2017

- 2 hours of education in **both**
  - Pain management or Identification of addiction **and**
  - Practices of prescribing or dispensing
- May be obtained as part of PharmD curriculum or through Continuing Education courses
- Documentation must be submitted no later than 12 months after receiving initial license. See reference #3

Biennial Renewal

- 2 hours of continuing education in **one** of the following:
  - Pain management
  - Identification of addiction
  - Practice of prescribing or dispensing
- Currently courses with titles indicating pain management, identification of addiction, and/or practices of prescribing or dispensing opioids are acceptable
- Department of State is developing qualifying continuing education courses for pharmacists- expected in 2018

http://www.legis.state.pa.us/cfdocs/legis/li/uconsCheck.cfm?yr=2014&sessInd=0&act=191
http://www.legis.state.pa.us/cfdocs/legis/li/uconsCheck.cfm?yr=2016&sessInd=0&act=124



Objective Three:
To identify and demonstrate the use of resources available to assist pharmacists in the dispensing of medications commonly misused

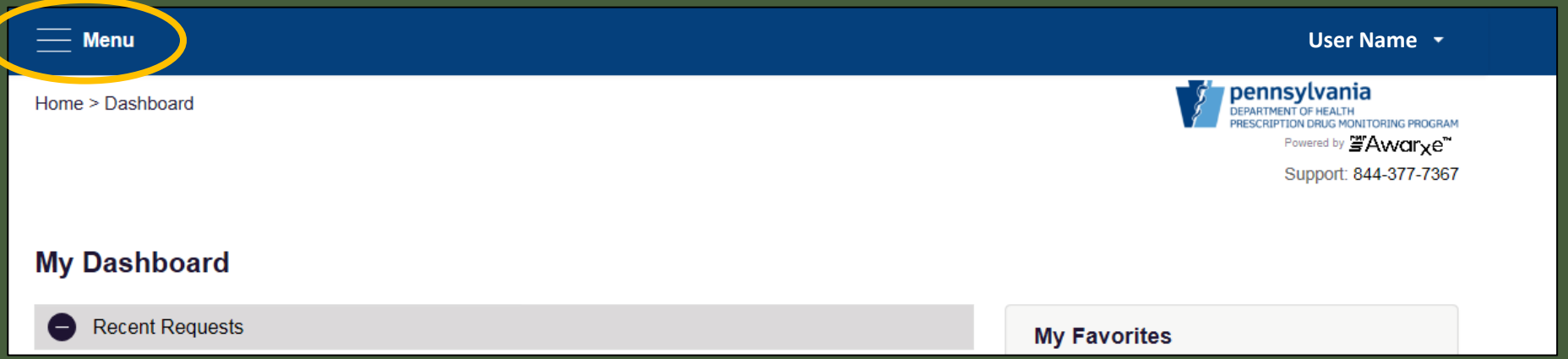
Resource #1: Prescription Drug Monitoring Program (PDMP)

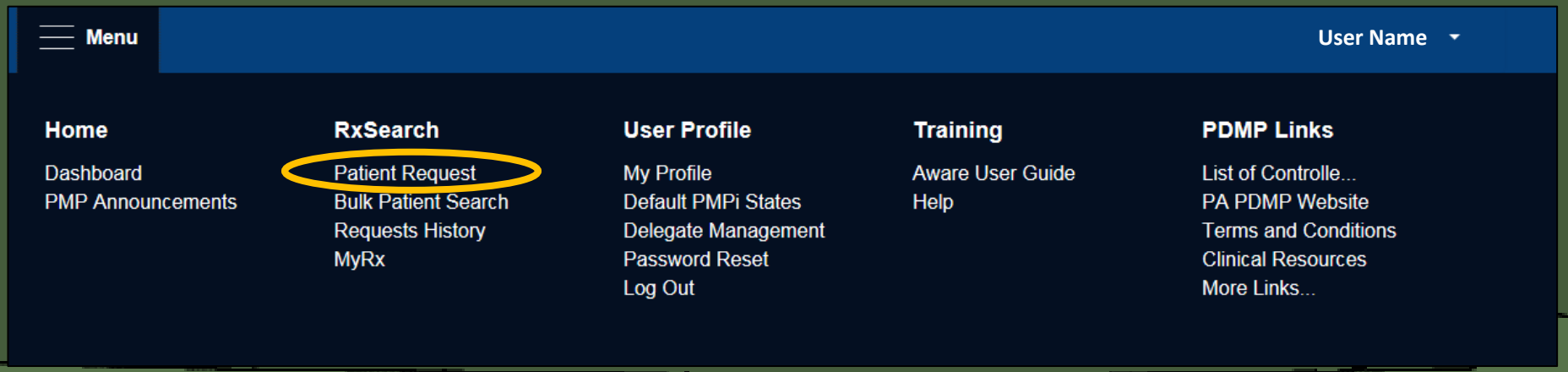
- Database access
  https://pennsylvania.pmpaware.net/login
- Information on registering yourself, delegates, and using the system
  http://www.health.pa.gov/your-department-of-health/offices%20and%20bureaus/paprescriptiondrugmonitoringprogram/pages/pdmp-portal.aspx#.Wpw2tOco7mQ
- Healthcare entities can request PDMP integration with their prescription management system or electronic health system through the Department of Health website
- Can search across the following state lines:

  Bordering states: DE, MD, NJ, NY, OH, WV

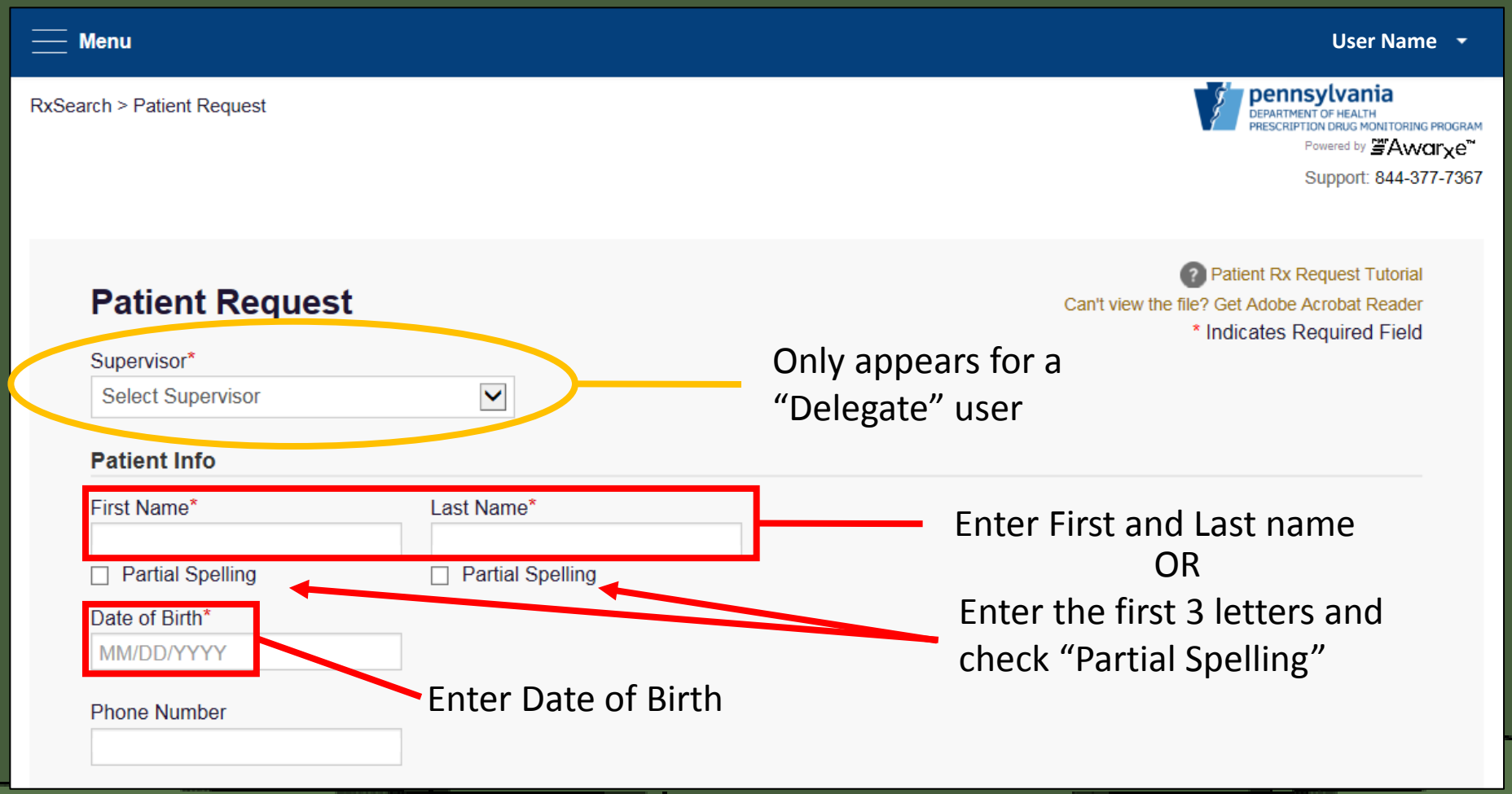
  Others: AK, CT, DC, IL, LA, ME, MA, MN, OK, SC, TX, VA

Performing a Query

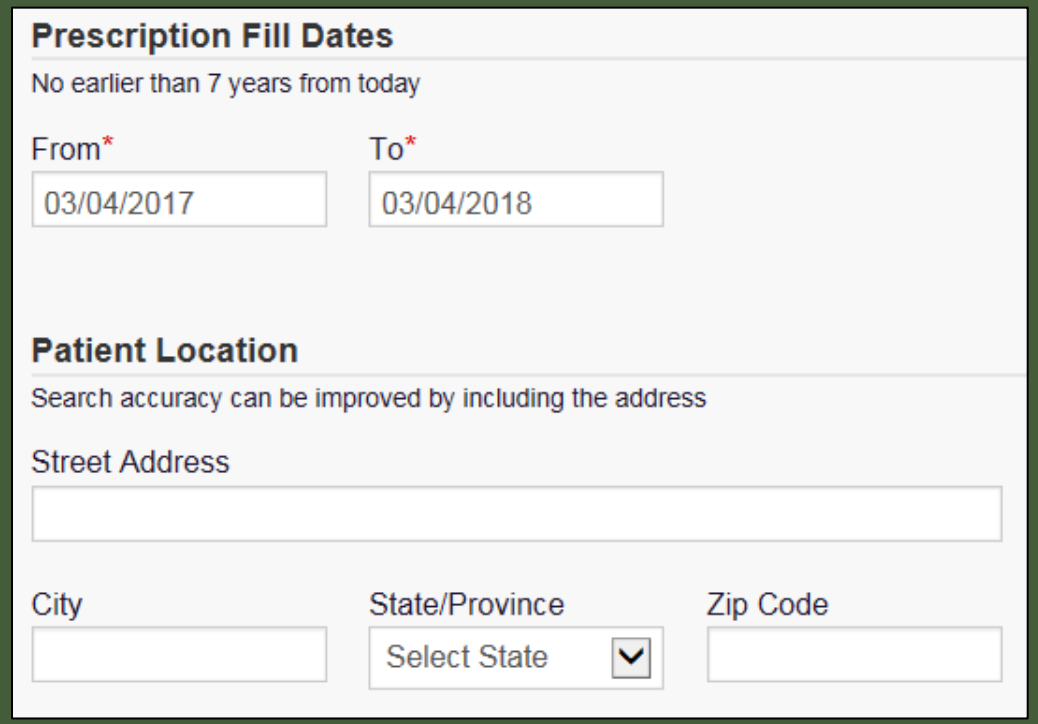


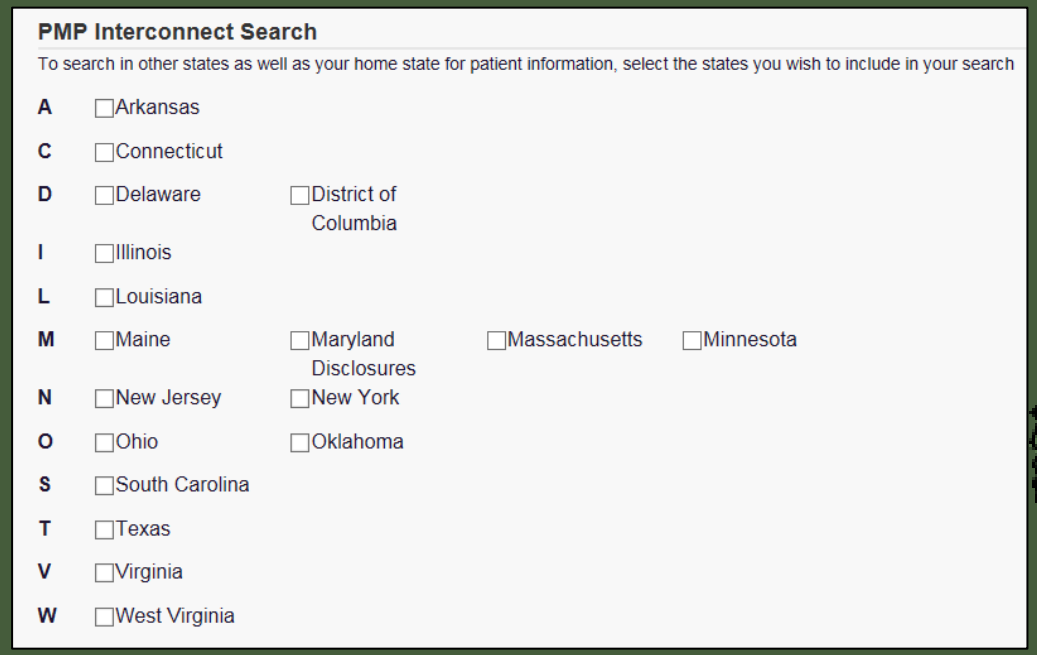


Provide Required Information to Query



Additional Options for Query





- Pharmacists can search all available states
- Delegates are restricted from searching some states, including New Jersey
- May not be able to do “Partial Spelling”

Query Report

1. Fill date
2. Written date
3. Drug
4. Quantity
5. Days supply
6. Prescriber
7. Prescription number
8. Filling pharmacy
9. Refills
10. Morphine milliequivalents per day
11. Payment type
12. State of fill

Patient Report Refine Search

Report Prepared: 08/12/2016 Date Range: 01/05/2015–12/01/2015

▶ **John Doe**

Summary Prescriptions:4 Prescribers:4 Pharmacies:3 Private Pay:3 Active Daily MME:0.0

▼ **Prescriptions**

Filled	ID	Written	Drug	QTY	Days	Prescriber	Rx #	Pharmacy *	Refills	MME/D	Pymt Type	PMP
12/01/2015	1	11/30/2015	TRAMADOL HCL 50 MG TABLET	30.0	30	D TES	0058749	B PHA (1119)	0	5.0	Comm Ins	DO
02/25/2015	2	02/25/2015	HYDROCODON-ACETAMINOPHN 10-325	90.0	30	E TES	D00013	C PHA (2222)	0	18.0	Private Pay	DO
02/18/2015	2	02/18/2015	HYDROCODON-ACETAMINOPHN 10-325	90.0	30	D TES	D00012	C PHA (2222)	0	18.0	Private Pay	DO
02/04/2015	3	02/04/2015	HYDROCODON-ACETAMINOPHN 10-325	90.0	30	C TES	D00011	B PHA (1111)	0	18.0	Private Pay	DO

*Pharmacy is created using a combination of pharmacy name and the last four digits of the pharmacy license number.

http://www.health.pa.gov/Your-Department-of-Health/Offices%20and%20Bureaus/PaPrescriptionDrugMonitoringProgram/Documents/PAPDMP-PatientRecordQueryandWarningSigns.pdf

Query Report

Prescriber	Rx #	Pharmacy *
D TES	0058749	B PHA (1119)
E TES	D00013	C PHA (2222)
D TES	D00012	C PHA (2222)
C TES	D00011	B PHA (1111)

Prescribers

Name	Address	City	State	Zip	Phone
TESTPRESCRIBER, C	2910 HIGH ST	WICHITA	KS	67203	
TESTPRESCRIBER, D					
TESTPRESCRIBER, D	890 NO PLACE ST	WICHITA	KS	67203	
TESTPRESCRIBER, E	10110 TEST ST	WICHITA	KS	67204	

Dispensers

Pharmacy	Address	City	State	Zip	Phone
C PHARMACY CHAIN (2222)	2nd NOWHERE ST	WICHITA	KS	67206	3365550000
B PHARMACY (1111)	1234 NOT-A-REAL-PLACE DR	WICHITA	KS	67202	3160000000
B PHARMACY (1119)	1234 NOT-A-REAL-PLACE DR	WICHITA	KS	67202	

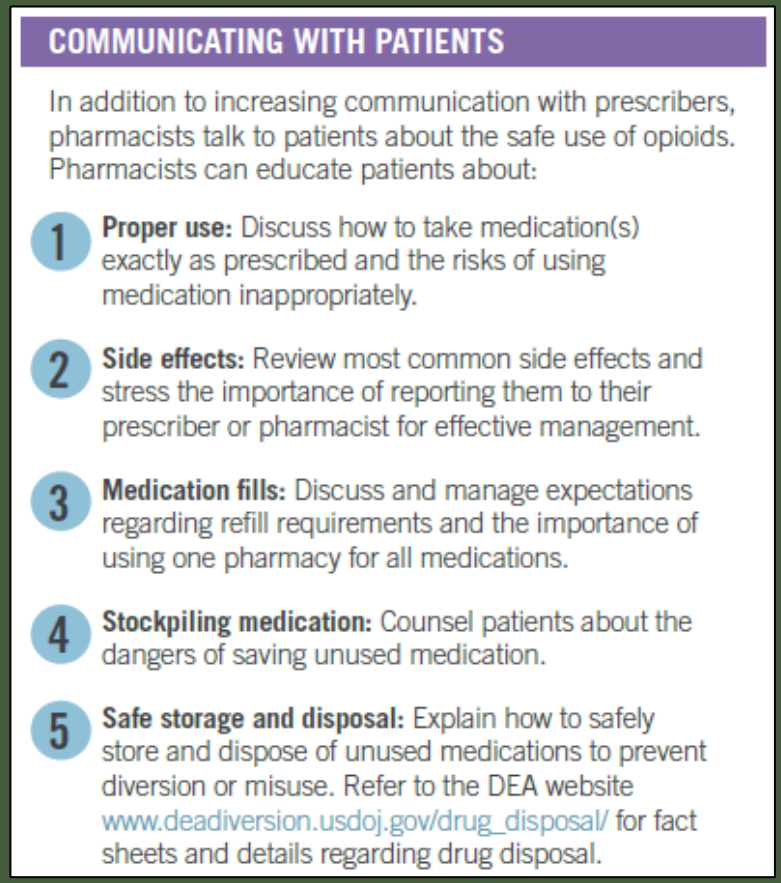
http://www.health.pa.gov/Your-Department-of-Health/Offices%20and%20Bureaus/PaPrescriptionDrugMonitoringProgram/Documents/PAPDMP-PatientRecordQueryandWarningSigns.pdf

Resource #2: CDC Clinical Tools

- Access
  https://www.cdc.gov/drugoverdose/prescribing/clinical-tools.html
- Includes:
  - Guideline for Prescribing Opioids for Chronic Pain
  - Information on the Opioid Guide App
  - Pharmacists' Brochure
  - Pocket Guide: Tapering
  - Prescribing checklist
  - Nonopioid Treatments
  - Assessing Benefits and Harms
  - Calculating Dosages
  - Information on PDMPs
  - Alcohol Screening and Brief Intervention Tool

Pharmacists' Brochure

- Provides guidance on having conversations about pain and opioids with patients
- Defines opportunities for pharmacists to partner with prescribers
- Illustrates actions a pharmacist can take to prevent abuse



COMMUNICATING WITH PATIENTS

In addition to increasing communication with prescribers, pharmacists talk to patients about the safe use of opioids. Pharmacists can educate patients about:

1. **Proper use:** Discuss how to take medication(s) exactly as prescribed and the risks of using medication inappropriately.
2. **Side effects:** Review most common side effects and stress the importance of reporting them to their prescriber or pharmacist for effective management.
3. **Medication fills:** Discuss and manage expectations regarding refill requirements and the importance of using one pharmacy for all medications.
4. **Stockpiling medication:** Counsel patients about the dangers of saving unused medication.
5. **Safe storage and disposal:** Explain how to safely store and dispose of unused medications to prevent diversion or misuse. Refer to the DEA website www.deadiversion.usdoj.gov/drug_disposal/ for fact sheets and details regarding drug disposal.

https://www.cdc.gov/drugoverdose/pdf/Pharmacists_Brochure-a.pdf

Nonopioid Treatments

- Provides options for chronic pain based on underlying causes and co-morbidities

- Specific recommendations for:
  - Low back pain
  - Migraine
  - Neuropathic pain
  - Osteoarthritis
  - Fibromyalgia

Osteoarthritis

Nonpharmacological treatments: Exercise, weight loss, patient education

Medications

- First-line: Acetamionphen, oral NSAIDs, topical NSAIDs
- Second-line: Intra-articular hyaluronic acid, capsaicin (limited number of intra-articular glucocorticoid injections if acetaminophen and NSAIDs insufficient)

Fibromyalgia

Patient education: Address diagnosis, treatment, and the patient's role in treatment

Nonpharmacological treatments: Low-impact aerobic exercise (e.g., brisk walking, swimming, water aerobics, or bicycling), cognitive behavioral therapy, biofeedback, interdisciplinary rehabilitation

Medications

- FDA-approved: Pregabalin, duloxetine, milnacipran
- Other options: TCAs, gabapentin

https://www.cdc.gov/drugoverdose/pdf/nonopioid_treatments-a.pdf

Alcohol Screening and Brief Intervention

- An evidence-based approach to reduce excessive drinking

Option 1[10]

A single-question screener: "How many times in the past year have you had 5 or more drinks in a day (for men) or 4 or more drinks in a day (for women)?"

Option 2 Brief Alcohol Use Disorders Identification Test (AUDIT 1-3) (US)[7]**:**

1. How often do you have a drink containing alcohol?
2. How many drinks containing alcohol do you have on a typical day you are drinking?
3. How often do you have X (5 for men; 4 for women & for men over age 65) or more drinks on one occasion?

- Alcohol involved with 22% of opioid overdose deaths and 18% of opioid related emergency room visits

- 9 out of 10 excessive drinkers are not dependent on alcohol

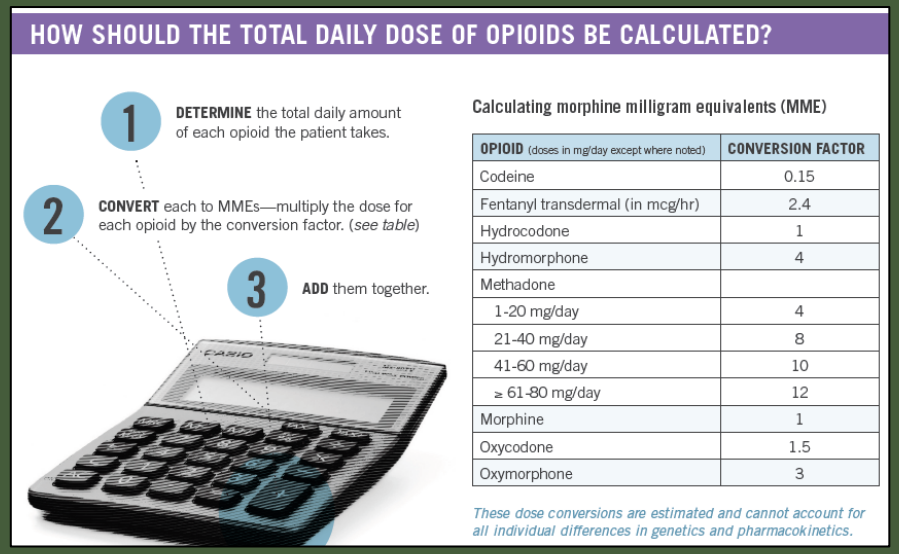
Excessive alcohol use includes

- Binge drinking: consuming 5 or more drinks for men or 4 or more drinks for women, per occasion.
- Heavy drinking: consuming 15 or more drinks per week for men or 8 or more drinks per week for women.
- Any drinking by pregnant women or people younger than the minimum legal drinking age of 21.

https://www.cdc.gov/drugoverdose/pdf/prescribing/AlcoholToolFactSheet-508.pdf

Calculating Dosages

- Provides conversion factors for each opiate to enable calculation of MME/day. Patients with high MME/day may benefit from:
  - Medication therapy management
  - Naloxone prescribing/furnishing



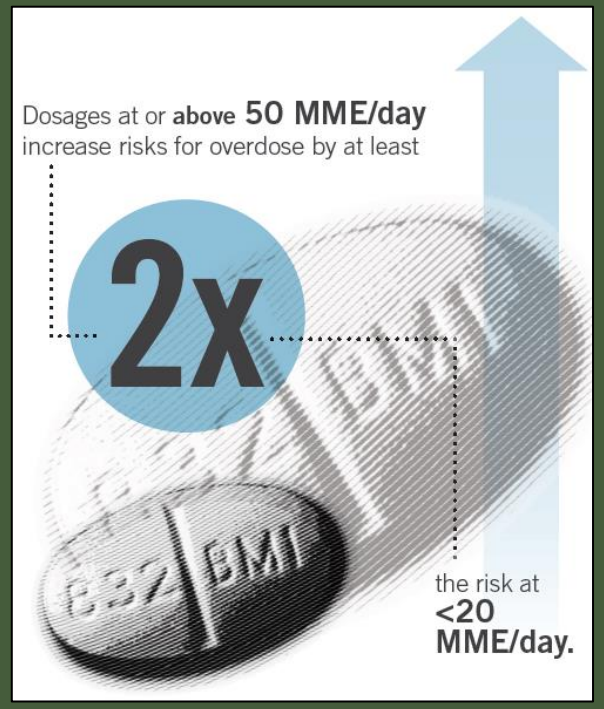
HOW SHOULD THE TOTAL DAILY DOSE OF OPIOIDS BE CALCULATED?

1. **DETERMINE** the total daily amount of each opioid the patient takes.
2. **CONVERT** each to MMEs—multiply the dose for each opioid by the conversion factor. (*see table*)
3. **ADD** them together.

Calculating morphine milligram equivalents (MME)

OPIOID (doses in mg/day except where noted)	CONVERSION FACTOR
Codeine	0.15
Fentanyl transdermal (in mcg/hr)	2.4
Hydrocodone	1
Hydromorphone	4
Methadone	
1-20 mg/day	4
21-40 mg/day	8
41-60 mg/day	10
≥ 61-80 mg/day	12
Morphine	1
Oxycodone	1.5
Oxymorphone	3

These dose conversions are estimated and cannot account for all individual differences in genetics and pharmacokinetics.



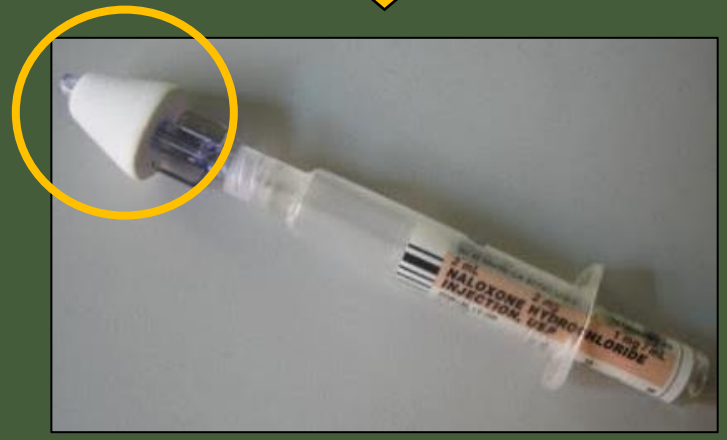
https://www.cdc.gov/drugoverdose/pdf/calculating_total_daily_dose-a.pdf

Resource #3: Naloxone Standing Order

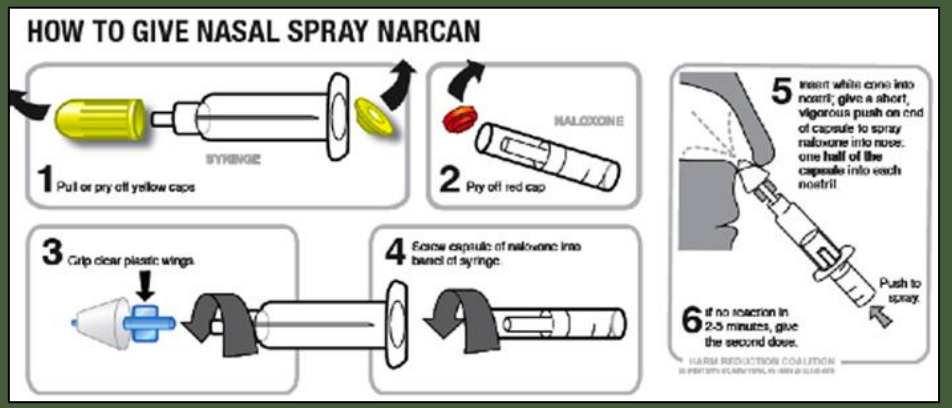
- Controlled Substance, Drug, Device and Cosmetic Act - Drug Overdose Response Immunity (Act 139)
  - Passed September 30, 2014
    Fully effective November 29, 2014
  - Allows for the creation of a standing order
  - Allows EMS and individuals to possess and administer naloxone to others
  - Confers immunity to
    - Persons helping an individual suspected of experiencing an overdose
    - Persons experiencing an overdose
- Signed by PA Physician General, Rachel Levine, MD
- Allows individuals to obtain naloxone with a prescription or through the standing order
  - Intra-nasal
    - Naloxone syringe + atomizer
    - Narcan®
  - Intramuscular
    - Evzio®
- Encourages all eligible persons to participate in a Naloxone training program

http://www.legis.state.pa.us/cfdocs/legis/li/uconsCheck.cfm?yr=2014&sessInd=0&act=139
http://www.health.pa.gov/My%20Health/Diseases%20and%20Conditions/M-P/opioids/Documents/General%20Public%20Standing%20Order-001-2018.pdf

Generic naloxone



- Manufactured as an injectable
  - Standing order only permits generic to be dispensed to the public for intranasal use
  - Atomizer must be purchased separate
- Costs around $40 cash
  - Insurance plans likely to cover medication as a Tier 1 product



Branded naloxone products

Evzio® auto-injector

- Device “speaks” directions
- Training device provided
- EVZIO2YOU direct-delivery service for commercially insured patients yields $0 copay
- Patient Assistance Program for uninsured persons with a household income less than $100,000

Narcan® nasal spray

- Easy to use
- 94% of insurance plans cover
  - 74% $10 copay or less

https://www.evzio.com/patient/
https://www.narcan.com/healthcare-professional

Resource #4: Red Flags

- A red flag is a warning sign that a patient is attempting to obtain a prescription for a non-legitimate medical purpose
- Use as a screening tool for each patient, not as definitive criteria for all patients
- Some states consider it be a “corresponding responsibility” for pharmacists to address “Red Flags”
  - Legally liable for patient injury or death
  - Pharmacy and pharmacist licenses revoked in California

http://www.pharmacytimes.com/print.php?url=/contributor/jeffrey-fudin/2017/10/opioid-red-flags-for-consideration-

Red Flags: Presentation of the Prescription

Red Flag	Example of a false flag
Patients travel in a group or live together and have prescriptions for the same medication from the same prescriber	Illness has a genetic component (ex: sickle cell) Family sustained injury (ex: car accident)
Patient presents prescriptions written for someone else	Caregiver
Pharmacist knows, or reasonably believes, that another pharmacy has refused to fill the prescription	Medication not in stock
Prescription looks altered or is written perfectly	Contact with moisture (ex: rain, sweat) Assistant wrote prescription for prescriber to sign
Pharmacy is not near prescriber's office or patient's residence	Insurance requires use of specific pharmacy
Prescriber's DEA registration has been suspended or revoked (or action is pending)	

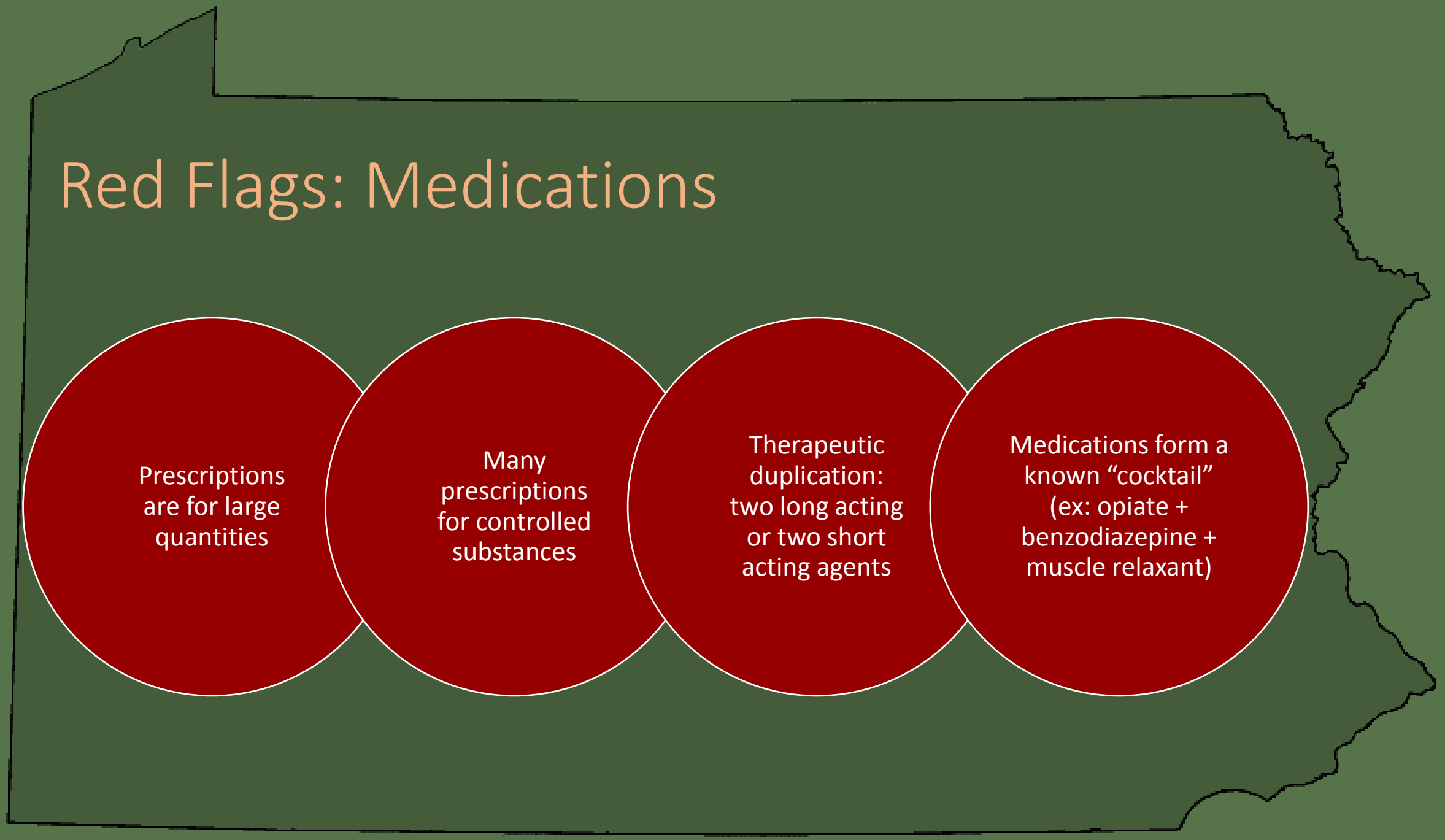
https://nabp.pharmacy/wp-content/uploads/2016/07/Red-Flags-Controlled-Substances-03-2015.pdf

Red Flags: Patient Behaviors and Attributes

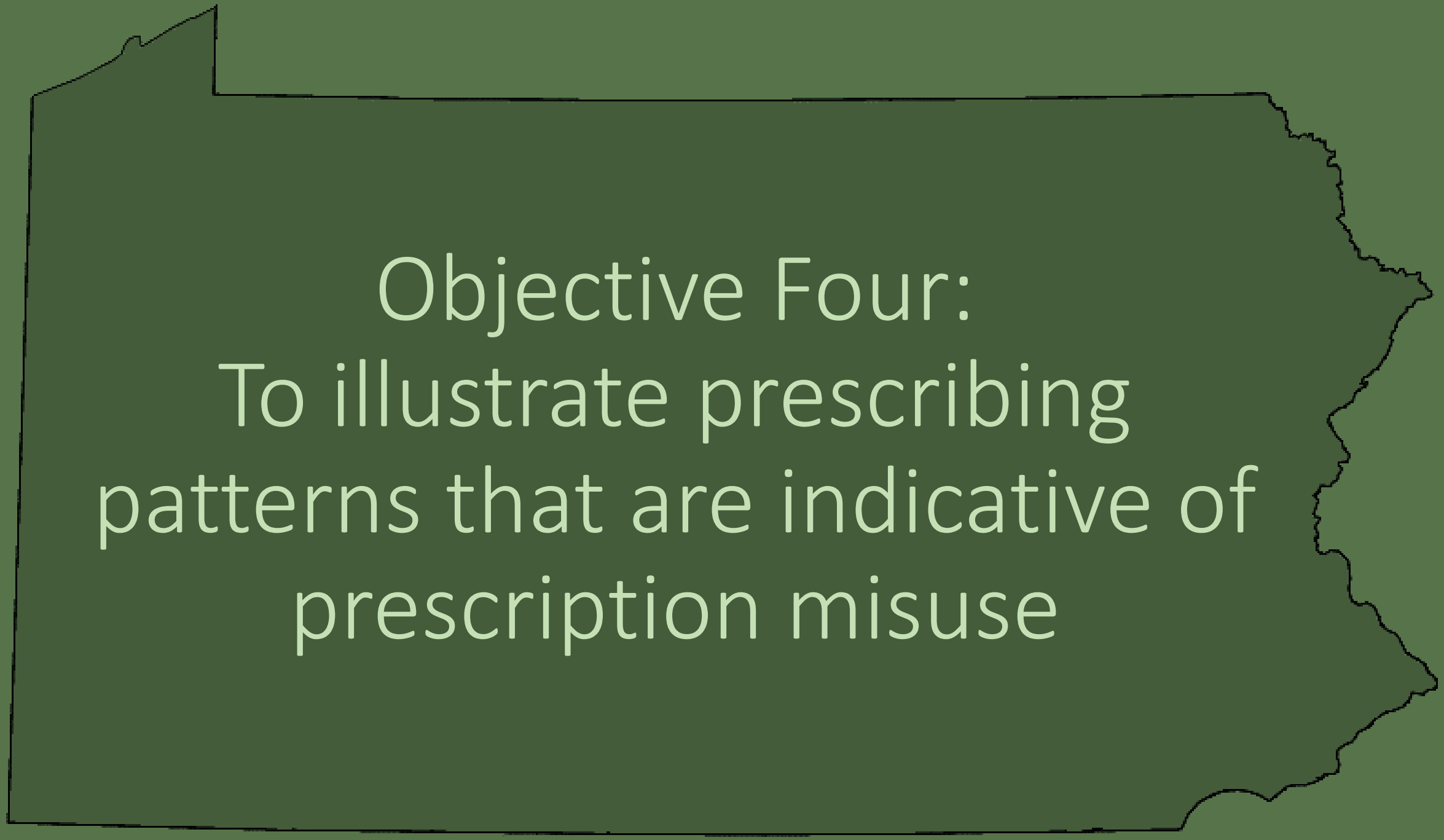
- Pressures pharmacist to dispense by making or implying threats
- Physical signs indicating substance abuse (ex: needle tracks on arm)
- Exhibiting signs of sedation, confusion, intoxication, or withdrawal
- Obtains prescriptions for similar medications from different prescribers or pharmacies
- Refers to medications by street names
- Multiple prescriptions for highly abused medications
- Has prescriptions for controlled and non-controlled substances but only wants to fill controlled substances
- Has a history of untruthfulness

https://nabp.pharmacy/wp-content/uploads/2016/07/Red-Flags-Controlled-Substances-03-2015.pdf

Red Flags: Medications

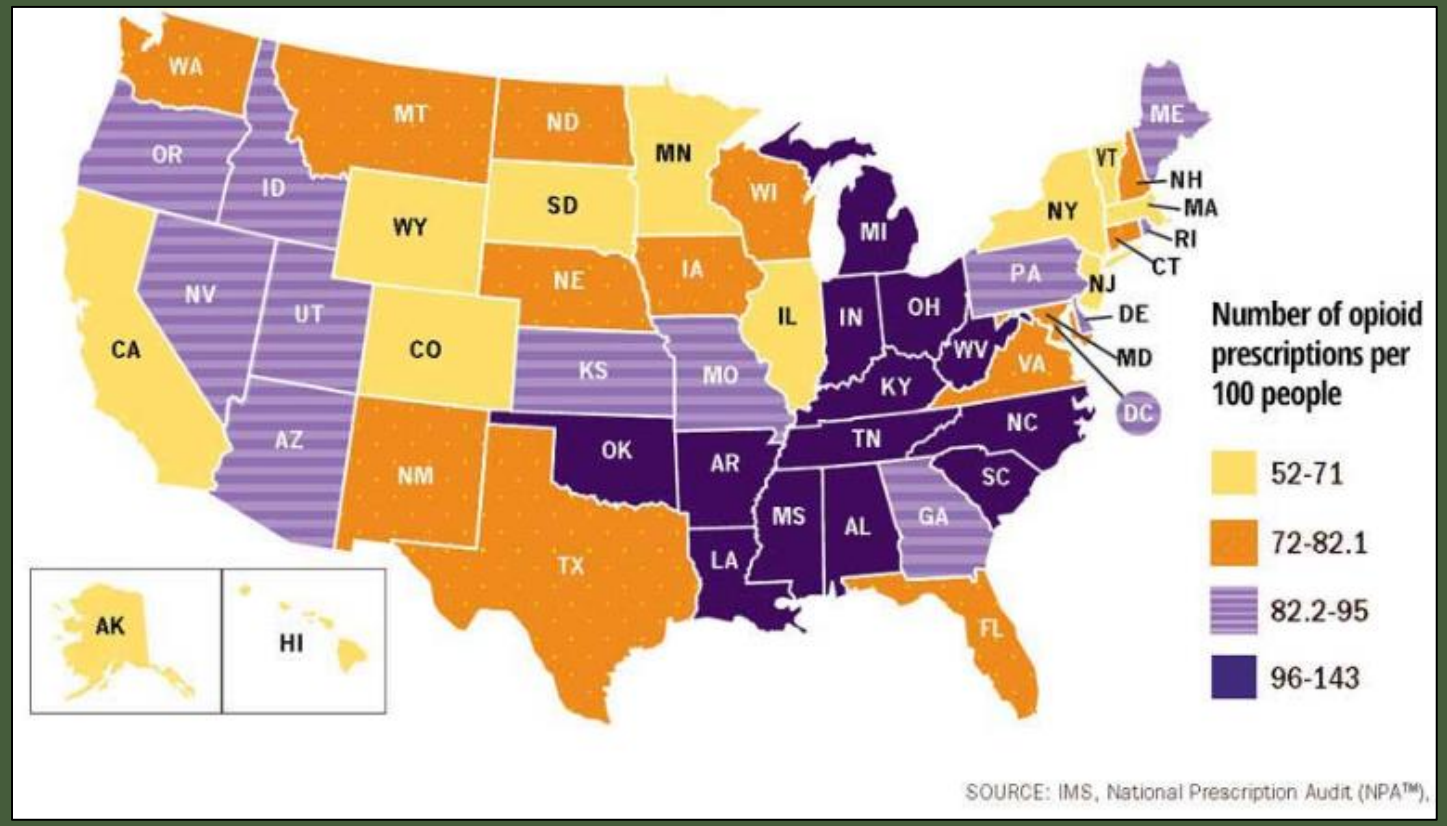


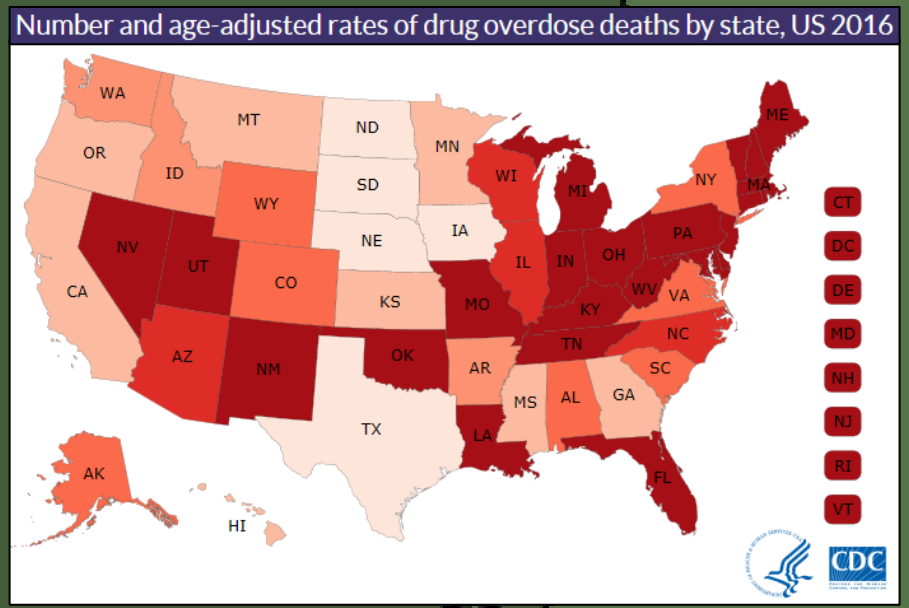
https://nabp.pharmacy/wp-content/uploads/2016/07/Red-Flags-Controlled-Substances-03-2015.pdf



Objective Four:
To illustrate prescribing patterns that are indicative of prescription misuse

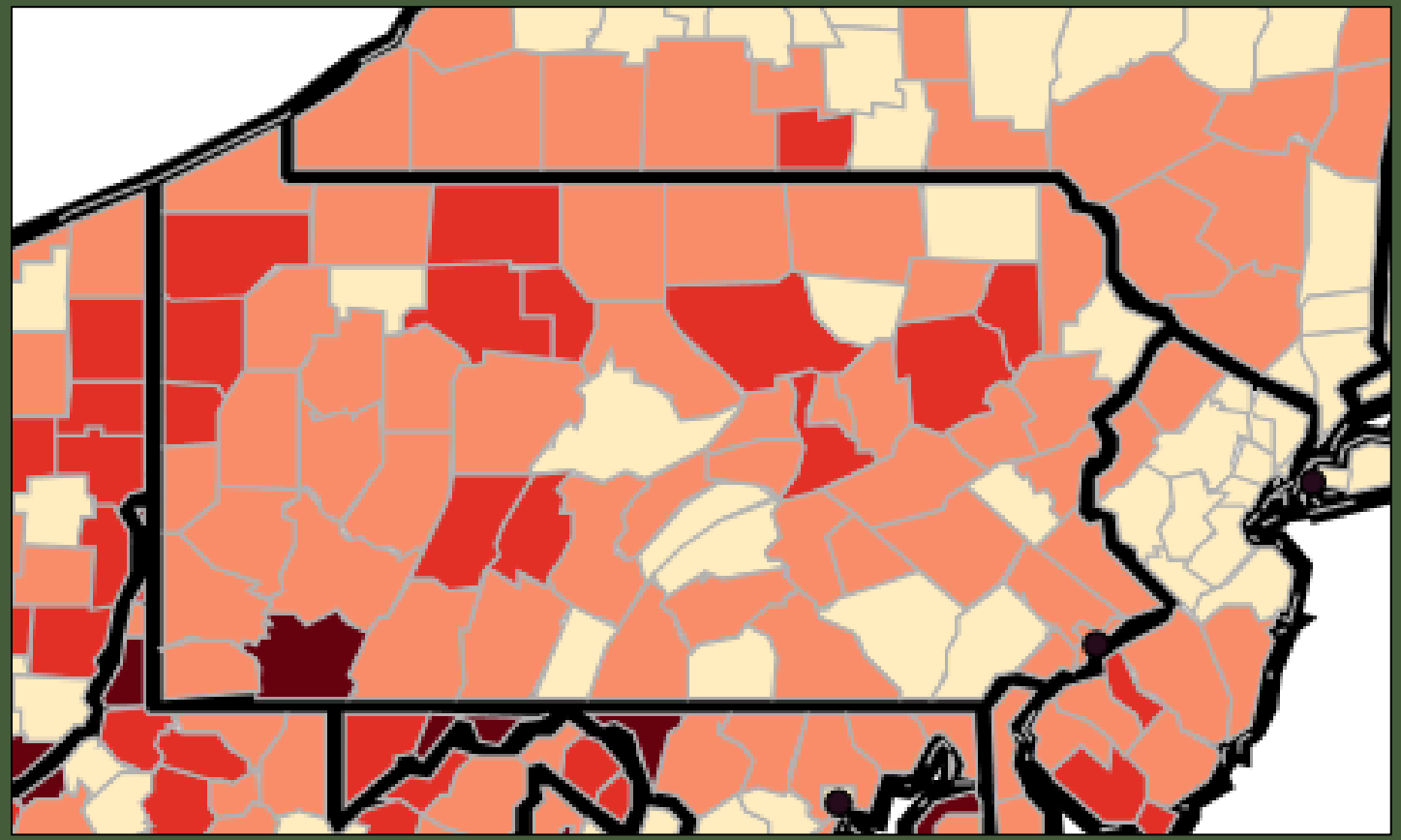
2016 National Opioid Prescribing Trends

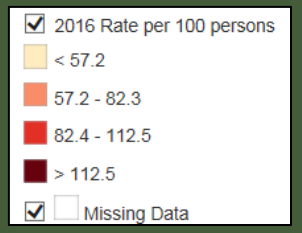


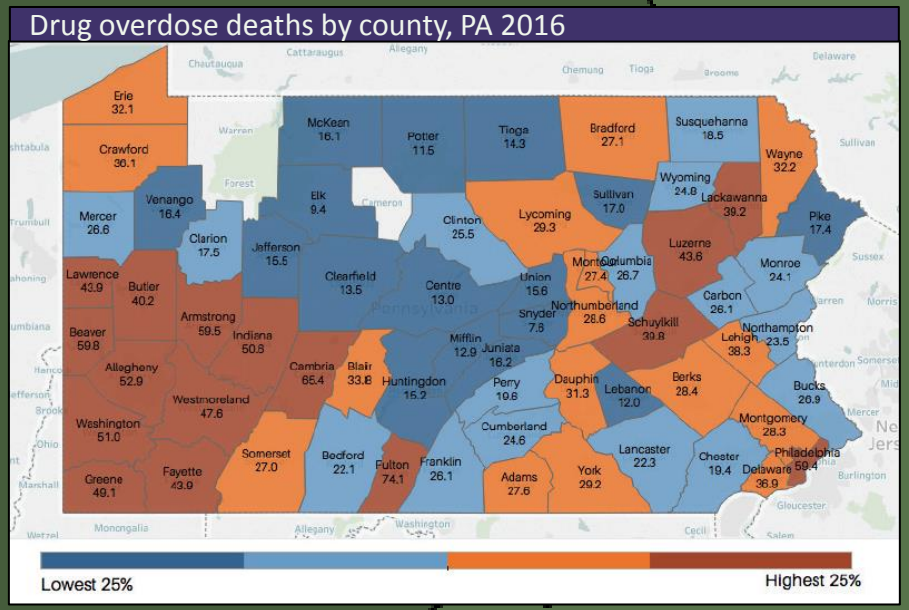


https://www.cdc.gov/drugoverdose/data/prescribing.html
https://www.cdc.gov/drugoverdose/data/statedeaths.html

2016 Local Opioid Prescribing Trends



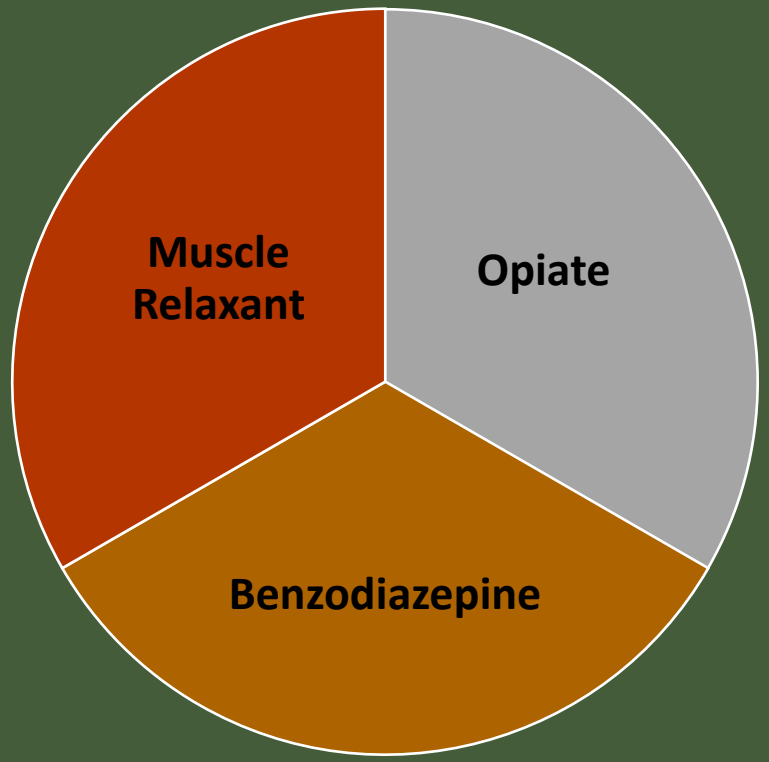




https://www.cdc.gov/drugoverdose/maps/rxcounty2016.html

Analysis of Overdose Deaths in Pennsylvania, 2016. Joint report of the DEA Philadelphia Division and the University of Pittsburgh.

“Cocktails”



Most Common	Alternative
Hydrocodone “Houston Trinity”	Oxycodone “Holy Trinity”
Alprazolam	Clonazepam
Carisoprodol	Cyclobenzaprine

Holske R. Prescription Drug Trafficking & Abuse Trends. EU-US Dialogue on Drugs. Brussels, Belgium. May 15, 2013. https://www.deadiversion.usdoj.gov/pubs/presentations/euus2013.pdf
https://www.deadiversion.usdoj.gov/drug_chem_info/benzo.pdf

Other concerning opioid prescribing

- tramadol + zolpidem + trazodone
- buprenorphine + benzodiazepine
- opioid + gabapentin or pregabalin +/- benzodiazepine +/- naproxen
- Switch from buprenorphine-naloxone (Suboxone®) to buprenorphine (Subutex®)

Prescribing Guidelines for Pennsylvania. Opioid Dispensing Guidelines. January 14, 2016. http://www.health.pa.gov/My%20Health/Diseases%20and%20Conditions/A-D/Documents/PA%20Guidelines,%20on%20the%20Dispensing%20of%20Opioids.pdf
Kominek C. What's all the "GABA" 'Bout? Pregabalin and Gabapentin Abuse. Painweek. February 28, 2018. https://www.painweek.org/assets/PAINWeekEnd%20Slides/2018/Denver/Saturday_02_What%27s%20all%20the%20GABA%20About%20(Kominek).pdf

A closer look at gabapentinoids

Reduce release of neurotransmitters from synapses	Pregabalin	Gabapentin
• Glutamate • Noradrenaline • Serotonin • Dopamine	• Effects likened to diazepam by known recreational users of sedatives/hypnotics • 4% of patients in one study (n>5500) reported euphoria as a side effect	• Persons with poly-substance abuse were found to take higher doses than prescribed • States requiring PDMP reporting: MN, OH, KY (schedule V), MA, ND, VA, WV, WY

Lyrica package Insert. New York, NY: Pfizer, Inc. 2013.
Neurontin package insert. New York, NY: Pfizer, Inc; 2017.

Gabapentinoid drug-drug interactions

Morphine

- Increases somnolence, spatiotemporal disorientation, and visual hallucinations

Tramadol

- Synergistically decreases pain

Naproxen

- Increases gabapentin absorption by 12-15%

Hydrocodone

- Decreases exposure to hydrocodone

Quintero GC. Review about gabapentin misuse, interactions, contraindications and side effects. Journal of Experimental Pharmacology. 2017;9 13-21. February 9, 2017.
Neurontin package insert. New York, NY: Pfizer, Inc; 2017.

Additional References and Resources

1. PDMP Written Notice for Patients
   http://www.health.pa.gov/Your-Department-of-Health/Offices%20and%20Bureaus/PaPrescriptionDrugMonitoringProgram/Documents/PDMP_Patient_Notice_Poster.pdf
2. ABC-MAP Licensing and Renewal Requirements
   http://www.dos.pa.gov/ProfessionalLicensing/BoardsCommissions/Pharmacy/Documents/Special%20Notices/PharmSN%20-%20Notice%20Regarding%20Opioid%20Education.pdf
3. Verification of Opioid Education Completed as Part of an ACPE-Accredited School of Pharmacy's PharmD or BS in Pharmacy Program
   http://www.dos.pa.gov/ProfessionalLicensing/BoardsCommissions/Pharmacy/Documents/Applications%20and%20Forms/Non-Application%20Documents/PharmF%20-%20Verification%20of%20Opioid%20Education%20Form.pdf
4. Naloxone
   http://prescribetoprevent.org/
5. Stakeholders' Challenges and Red Flag Warning Signs Related to Prescribing and Dispensing Controlled Substances
   https://nabp.pharmacy/wp-content/uploads/2016/07/Red-Flags-Controlled-Substances-03-2015.pdf