

# ”Hold My Beer, Watch This!”

Alcohol, Drugs, and Trauma. Oh My!



# Who invited these guys?

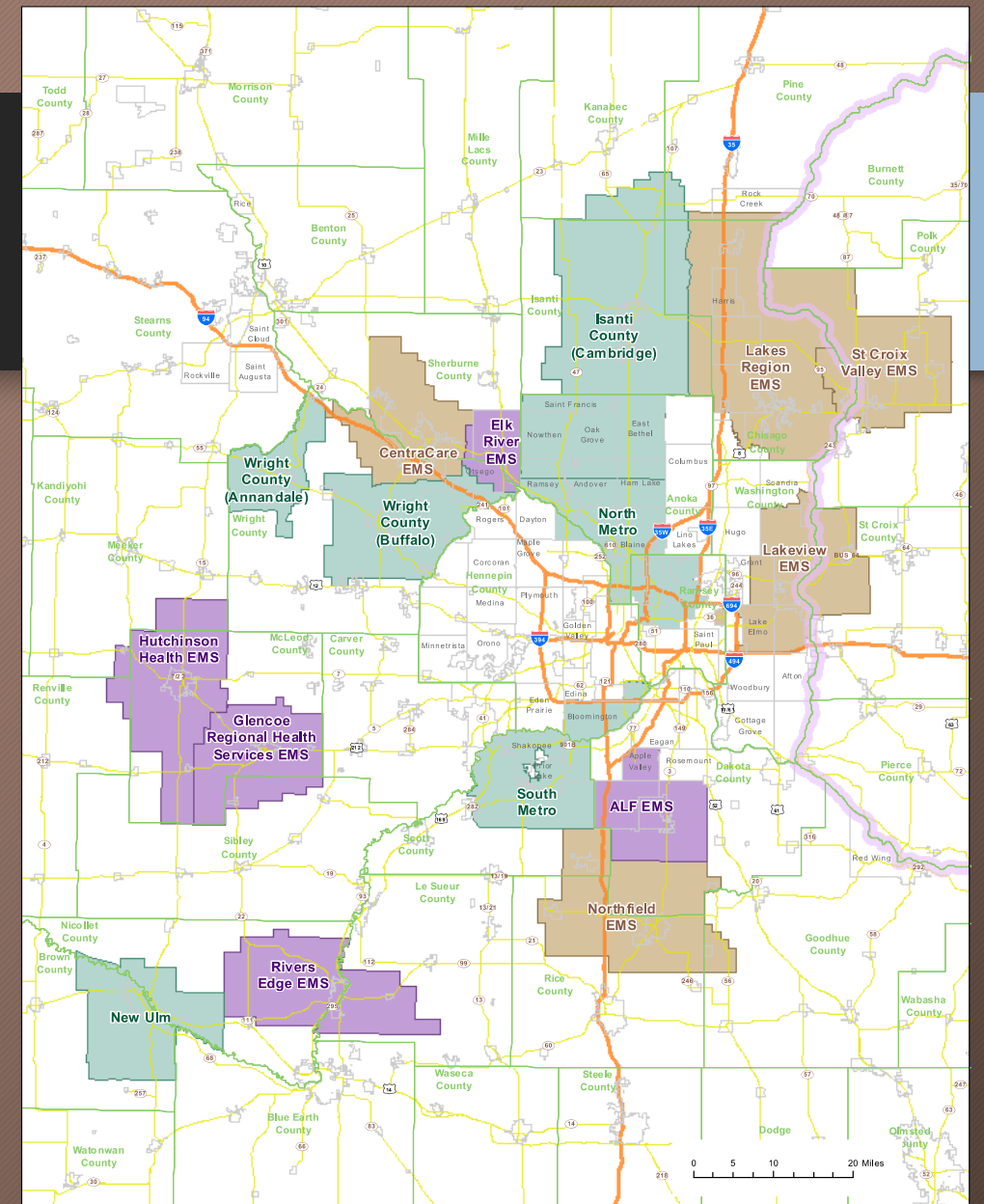
- Charles Soucheray
  - Paramedic, Allina Health EMS 10 years
  - Tactical Medical Operator, Tri-City SWAT 4 years
  - Urgency Room Paramedic, 7 years
- Patrick Sweany
  - Paramedic, Allina Health EMS 15 years
  - Tactical Medical Operator, Bloomington PD SWAT, Airport PD SWAT 10 years
  - Interim Director, Tactical Emergency Medical Support - SOTA

# What Are We Talking About?

- Broad trends in drug and alcohol responses
- Responses to drug and alcohol related injuries
- Opioid overdoses and Narcan usage
- EMS response to drug overdoses
- Excited Delirium

# Allina Health EMS Data

- 1200 sq mile PSA
- More than 60,000 calls/year local metro area
- More than 100,000 calls/year



Allina Health EMS Primary Response Areas

Legend:  
PSA Licensed by Allina Health EMS  
PSA under Allina Health EMS Contract  
PSA Dispatch Service Areas

# National Alcohol and Drug Use

- Alcohol
  - 25% of adults (18 and older) have had at least one heavy drinking day in the last year.
- Drugs
  - 10.1% of individuals 12 and older use illicit drugs within the last month
  - 2.4% of individuals 12 and older report non-medical use of psychotherapeutic drugs
    - Xanax, Klonopin, Trazodone, et al.



# What did we expect to see?

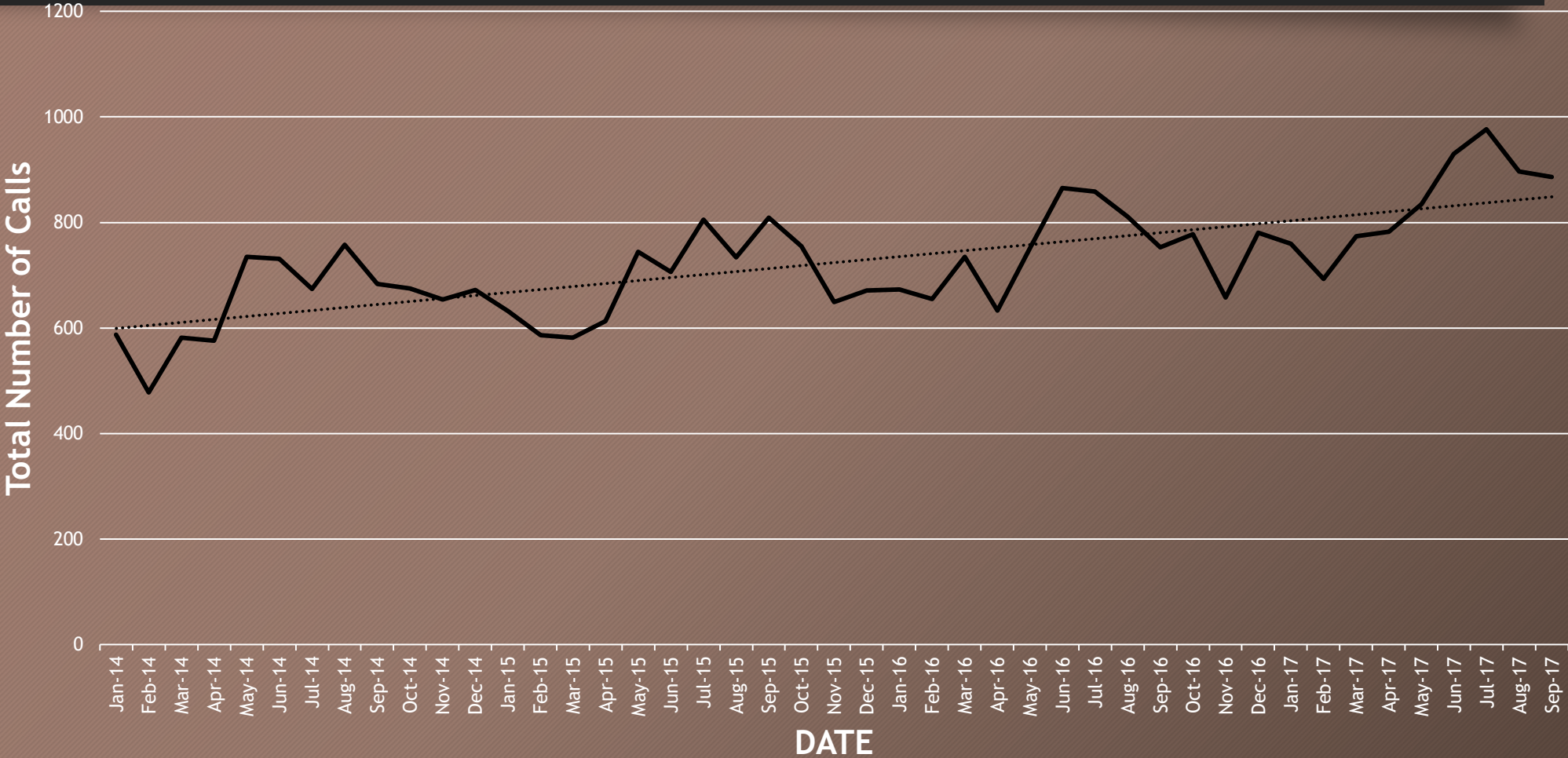
- Increased amount of calls with drug and/or alcohol involvement



# Methods

- Data pulled from Allina Health EMS Database
- Included provider charts that were marked for suspected drug/alcohol use
- Provider charts that denoted trauma present

# Number of Drug and Alcohol Related Calls Per Month January 2014 - September 2017





# Drug and Alcohol Calls as a Percent of Total Calls

YEAR	# DRUG AND ALCOHOL CALLS	TOTAL # CALLS	PERCENTAGE
2014	7805	60,580	12.9%
2015	8286	64,182	12.9%
2016	8951	67,310	13.3%
2017 (ENDING 9/2017)	7533	56,139	13.4%

# Drugs and Alcohol Calls With Injuries

YEAR	DRUGS AND ALCOHOL PRESENT	TOTAL CALLS WITH INJURIES	PERCENTAGE
2014	1835	7714	23.8%
2015	1909	8367	22.8%
2016	1982	9115	21.7%
2017 (ENDING 9/2017)	1754	7691	22.8%

# What Does it Mean?

- Drugs/Alcohol and injury are a 2-way street
- Be suspicious



# Opioid Crisis

- 2015

- More than 33,000 deaths as a result of opioid overdose
- Estimated 2 million abuse opioids
- 30% of those use heroin or both
- 4-6% who abuse prescription opioids transition to heroin and 80% of heroin users first abused prescription opioids



*Opioid Crisis*

*National Institute on Drug Abuse, NIH*

<https://www.drugabuse.gov/drugs-abuse/opioids/opioid-crisis>

# Managing Opioid Overdoses

- Most common signs
  - Respiratory depression/arrest
  - Pinpoint pupils
- Airway management and assisted ventilations if needed are the primary treatments
- Narcan
  - Opioid reversal agent

LAW ENFORCEMENT	PARAMEDICS
Pre-filled Nasal Spray	Pre-filled/Multi-dose vials for injection
4 mg	0.4 mg - 2.0 mg

# Narcan

- Medics will typically administer a dose that allows for the reversal of respiratory arrest/depression
  - May not bring the patient fully out of the “high”
- What to expect after administration
  - Improvement in respiratory effort
  - Nausea and vomiting
  - Possible to experience withdrawal symptoms



# Narcan Use by Allina EMS

	NARCAN ADMINS	TOTAL CALLS W/ DRUGS AND ALCOHOL	TOTAL PERCENTAGE
2014	276	7,805	3.5%
2015	313	8,286	3.7%
2016	393	8,951	4.3%
2017 (THROUGH 10/20)	350		

# Other types of overdoses

- “Uppers” - Meth, cocaine, crack, bath salts, K2, et al
  - No reversal agents
  - Supportive care
  - Sedation if needed
    - Excited Delirium





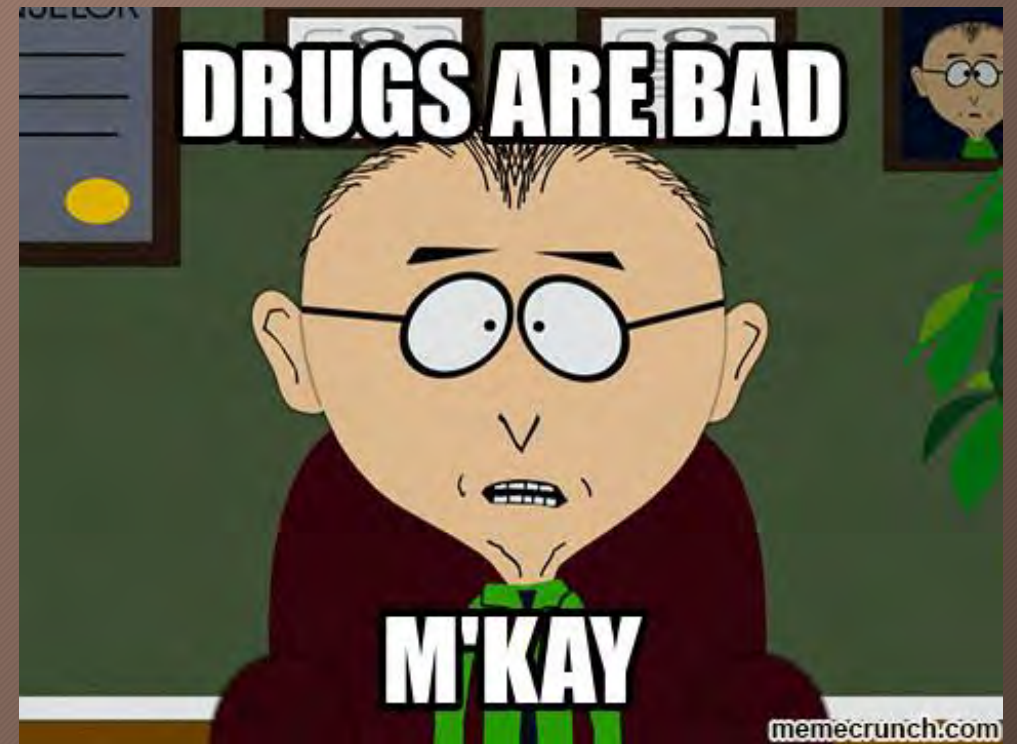
# Sedation Medications

- Used by Allina Medics
  - Versed
  - Haldol
  - Ketamine
- All 3 given by injection into a muscle or via IV

	KETAMINE	HALDOL	VERSED
TIME OF ONSET (INTRAMUSCULAR)	1-2 minutes	3-5 minutes	5-10 minutes

# Take Home Message

- Drugs, alcohol, and injuries go hand in hand
- First treatment in opioid overdose is airway management
- Be vigilant with individuals that have used drugs and/or alcohol and required use of force



Thank You for Your Time!

