

DANE COUNTY MEDICAL EXAMINER
2016-2023 OVERDOSE DATA

HHN/PP&J JOINT COMMITTEE MEETING
JUNE 22, 2023

- WISH: Home
- All Births
- Behavioral Risk Factor Survey
- Cancer
- Fertility
- Infant Mortality
- Injury-Related Health Outcomes
- Low Birthweight
- Mortality
- Opioids
- Population
- Prenatal Care
- Teen Births
- Violent Death
- Help: Designing a Query

Wisconsin Violent Death Reporting System

Deaths were included in the Wisconsin Violent Death Reporting System if the following criteria were met:

- **Manner of death** was suicide, homicide, legal intervention, terrorism, unintentional firearm, or of undetermined intent; and
- **Cause of death** (underlying or contributing) was coded as one or more of the following ICD-10 external cause of death codes:

Manner of death and ICD-10 Codes

Manner of Death	ICD-10 Codes Death <1 year after the injury	ICD-10 Codes Death ≥1 year after the injury
Intentional self harm (suicide)	X60-X84	Y87.0
Assault (homicide)	X85-X99, Y00-Y09	Y87.1
Event of undetermined intent	Y10-Y34	Y87.2, Y89.9
Unintentional exposure to inanimate mechanical forces (firearms)	W32-W34	Y86 determined to be due to firearms
Legal intervention excluding legal executions (Code Y35.5)	Y35.0-Y35.4, Y35.6-Y35.7	Y89.0
Terrorism	U01, U03	U02

OUR ROLE IN PUBLIC HEALTH

- Cause and Manner of Death
- Autopsies, External examinations

- Surveillance swabbing (COVID, Influenza, orthopox, etc)

- Data collection

- Violent Death Reporting System

Collect Vital Statistics



Wisconsin Department of Health Services Statewide Vital Records Information System (SVRIS)

SVRIS BA

SVRIS BA:

County Clerk (staff)
Funeral Director (staff)
Coroner/Medical Examiner (staff)
Physician (staff)

FIRST TIME USERS:

Add this site to your Trust Center for instructions. (PDF, 168 KB)

Setup Wizard: [Click here to Setup Wizard](#)

Vital Statistics Reporting Guidance

Report No. 2 ▪ May 2019



A Reference Guide for Completing the Death Certificate for Drug Toxicity Deaths

Introduction

Death certificates provide critical information used by public health officials to detect trends in mortality overall and by cause. State and national mortality statistics based on death certificate data are often used to help determine which medical conditions receive research and prevention funding; set public health goals; and measure population health status at the local, state, and national levels. Because statistical data derived from death certificates are only as accurate as the information provided, it

By following the instructions provided in this Reference Guide, certifiers will help ensure that their findings reported on death certificates are appropriately conveyed to others who use death certificate information for standardized statistical reporting and public health promotion.

Completing the Death Certificate for Drug Toxicity Deaths

National Association of Medical Examiners Position Paper: Recommendations for the Investigation, Diagnosis, and Certification of Deaths Related to Opioid Drugs

Gregory G. Davis MD MSPH and the National Association of Medical Examiners and American College of Medical Toxicology Expert Panel on Evaluating and Reporting Opioid Deaths

ABSTRACT: The American College of Medical Toxicology and the National Association of Medical Examiners convened an expert panel to generate evidence-based recommendations for the practice of death investigation and autopsy, toxicological analysis, interpretation of toxicology findings, and death certification to improve the precision of death certificate data available for public health surveillance. The panel finds the following:

1. A complete autopsy is necessary for optimal interpretation of toxicology results, which must also be considered in the context of the circumstances surrounding death, medical history, and scene findings.
2. A complete scene investigation extends to reconciliation of prescription information and pill counts.

Gregory G. Davis MD MSPH is an Associate Coroner/Medical Examiner at the Jefferson County Coroner/Medical Examiner Office



OPIOID DEATH POSITION PAPER

WVDRS: WISCONSIN VIOLENT DEATH REPORTING SYSTEM – 2014/2015 CORONER/MEDICAL EXAMINER FORM

C/M/E Name: _____ County: _____
 Email Address: _____ C/M/E Case #: _____
 Today's Date: ____/____/____
 # of deaths associated in this incident: _____ Police Agency investigating the death: _____
 # of nonfatal firearm victims in incident: _____ Police Case #: _____

VICTIM INFORMATION:

Last Name: _____ Race: White Black Asian Pacific Islander
 First Name: _____ American Indian Other Unspecified
 Middle Name: _____ Hispanic: 0. Not Hispanic 1. Hispanic 9. Unknown
 Date of Birth: ____/____/____ Residential Address: _____
 Age: _____ Indicate: minutes, days, months, years City: _____
 Sex: 1. Male 2. Female 9. Unknown County: _____
 Transgender: 0. No 1. Yes 9. Unknown State: _____ Zip Code: _____
 Height: ____ (feet) ____ (inches) Weight: ____ (lbs) Country: _____
 Marital Status: _____ Alternative Sexual Orientation: _____
 1. Married 2. Never Married 3. Widowed 4. Divorced 0. Straight/Heterosexual 1. Gay 2. Lesbian
 5. Married, but separated 6. Single, not otherwise specified 3. Bisexual 9. Unknown
 9. Unknown

Actual Date of Death: ____/____/____
 Manner of Death: 1. Natural 2. Accident 3. Suicide 4. Homicide
 5. Pending Investigation 6. Could Not be Determined
 7. Legal Intervention 9. Record Unavailable or Blank
 Victim was killed by another person who **attempted or committed suicide**. (check if yes)
 Place of Death: 1. Hospital inpatient 2. ED/Outpatient 3. DOA
 4. Hospice facility 5. Nursing home/long-term care facility
 6. Decedent's home 7. Other, specify: _____
 9. Unknown/Undetermined
 State of Death: _____
 Address of Injury: _____
 City of Injury: _____
 State of Injury: _____ Zip Code: _____
 County of Injury: _____

Location where injured: 1. House, apartment 2. Street, road, sidewalk, alley 3. Highway, freeway 4. Motor vehicle (excluding 15 & 21)
 5. Bar, nightclub 6. Service station 7. Bank, credit union, ATM
 8. Liquor store 9. Other commercial establishment (e.g., grocery store)
 10. Industrial/Construction areas 11. Office building 12. Parking lot/public parking garage 13. Abandoned house/building/warehouse
 14. Sports or athletic area 15. School bus 16. Child care center, daycare, pre-school 17. Elementary or middle school (i.e., K-8)
 18. High school 19. College/ University, including dormitory, fraternity
 20. Unspecified school 21. Public transportation or station (e.g., bus, train)
 22. Church, temple, synagogue 23. Hospital or medical facility
 24. Supervised residential facility (e.g., shelter, halfway house) 25. Farm
 26. Jail, prison, detention center 27. Park, playground, public use area
 28. Natural area (e.g., field, river, beaches, woods)
 29. Hotel/motel 30. Railroad tracks 31. Bridge 99. Unknown
 66. Other _____
 Homeless?: 0. No 1. Yes 9. Unknown
 Current occupation status: 1. Employed* 2. Unemployed
 3. Homemaker 4. Retired 5. Student 6. Disabled
 8. N/A (under 14) 9. Unknown
 *If employed, list occupation: _____

Victim in custody when injured: 0. Not in custody 1. In jail or prison
 2. Under arrest, but not in jail 3. Committed to mental hospital
 4. Resident of other state institution 5. In foster care 6. Injured prior to arrest
 8. Other (includes house arrest, electronic monitoring, legal home

Wounds: Code for the presence of firearm or sharp instrument wounds only.

	Absent	Present	Unknown
Face:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Intraoral:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thorax:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Upper Extremity:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lower Extremity:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Neck:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spine:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Head:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Abdomen:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Number of wounds: _____
 (e.g. 1 entry + 1 exit = 2 wounds)
 Number of bullets that hit victim: _____

Toxicology performed? No Yes
 (Ante-mortem or post-death tox samples are accepted.)

Suspected alcohol use in hours prior to death?
 0. No 1. Yes 8. N/A 9. Unknown

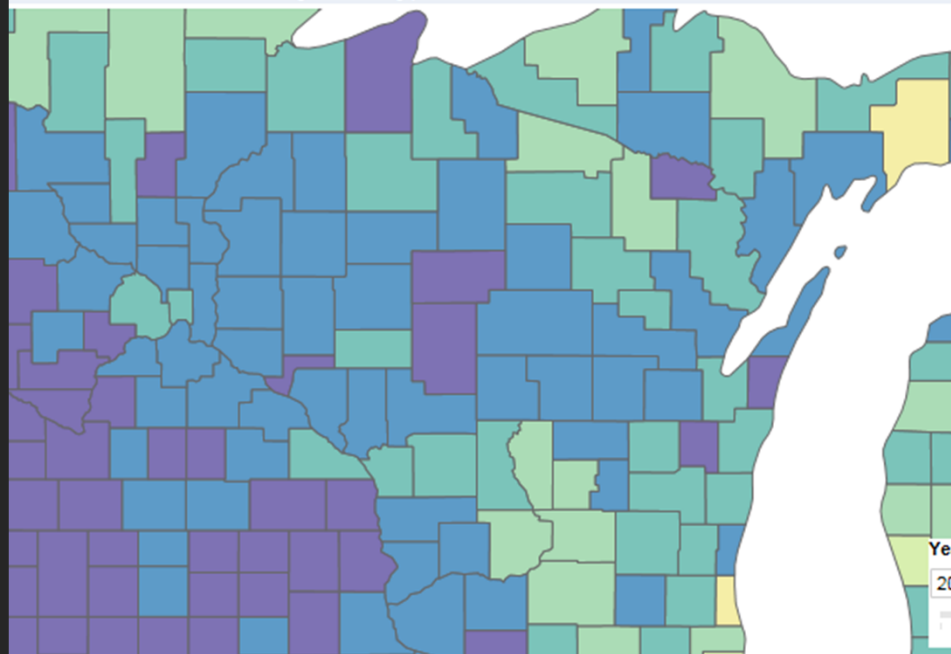
Date specimens were collected: ____/____/____
 Time Specimens were collected: ____:____ (military)

Drug Category:	Testing:	Results:
	1. Tested 2. Not Tested 9. Unknown	1. Present - list drug name(s) 2. Not Present 9. Unknown
Blood Alcohol		____ (e.g., .08)
Amphetamines		
Anticonvulsants		
Antidepressants		
Antipsychotics		
Cocaine		
Marijuana		
Muscle Relaxants		
Opiates		
Other		

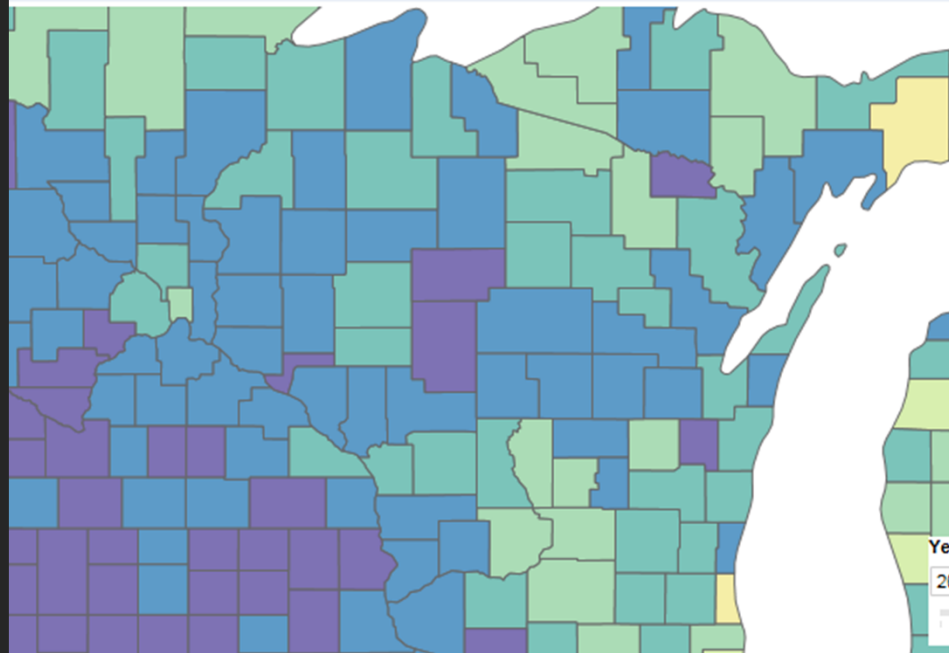
Circumstances known? Check if YES, then complete the table below:

SUICIDE, HOMICIDE, UNDETERMINED, OR LEGAL INTERVENTION DEATH	UNINTENTIONAL DEATH
<p>Check all that apply:</p> <p>Mental Health and Substance Abuse <input type="checkbox"/> Current depressed mood <input type="checkbox"/> Mental health problem If so, check type (Choose up to 2): <input type="checkbox"/> 1. Depression <input type="checkbox"/> 2. Bipolar Disorder <input type="checkbox"/> 3. Schizophrenia <input type="checkbox"/> 4. Anxiety Disorder <input type="checkbox"/> 5. Post-traumatic stress disorder <input type="checkbox"/> 6. ADD or hyperactivity disorder <input type="checkbox"/> 7. Eating disorder <input type="checkbox"/> 8. Obsessive-compulsive disorder <input type="checkbox"/> 88. Not applicable <input type="checkbox"/> 99. Unknown <input type="checkbox"/> 66. Other _____</p> <p><input type="checkbox"/> In current treatment for mental illness <input type="checkbox"/> Ever treated for mental illness <input type="checkbox"/> Alcohol problem <input type="checkbox"/> Other substance problem <input type="checkbox"/> Other addiction</p> <p>Relationship Problems <input type="checkbox"/> Intimate partner violence – Homicide only <input type="checkbox"/> Intimate partner problem – Suicide only <input type="checkbox"/> Family relationship problem <input type="checkbox"/> Other relationship problem</p> <p>Crime Related <input type="checkbox"/> Precipitated by another crime Nature of other crime: (Choose up to 2) <input type="checkbox"/> 1. Drug trade <input type="checkbox"/> 2. Robbery <input type="checkbox"/> 3. Burglary</p>	<p>Check all that apply:</p> <p>Arguments, Conflicts, Previous Exposure to Violence <input type="checkbox"/> Argument <input type="checkbox"/> Jealousy (lover's triangle) <input type="checkbox"/> Abuse or neglect led to death <input type="checkbox"/> History of abuse or neglect as a child <input type="checkbox"/> Previous perpetrator of violence (in past month) <input type="checkbox"/> Previous victim of violence (in past month)</p> <p>Suicide Markers <input type="checkbox"/> History of suicide attempts <input type="checkbox"/> Recently disclosed intent to commit suicide <input type="checkbox"/> Left a suicide note <input type="checkbox"/> History of expressed suicidal thoughts / plans</p> <p>Life Stressors <input type="checkbox"/> Crisis within past 2 weeks (recent/impending) <input type="checkbox"/> Contributing criminal legal problem <input type="checkbox"/> Civil legal problems <input type="checkbox"/> Contributing physical health problem <input type="checkbox"/> Job problem <input type="checkbox"/> Financial problem <input type="checkbox"/> School problem <input type="checkbox"/> Eviction/loss of home <input type="checkbox"/> Suicide of a friend or family <input type="checkbox"/> Other death of friend or family <input type="checkbox"/> Anniversary of a traumatic event</p> <p>Context of Injury: What was the shooter doing at the time of the injury? (Check all that apply): <input type="checkbox"/> Hunting <input type="checkbox"/> Target shooting <input type="checkbox"/> Self-defensive shooting <input type="checkbox"/> Celebratory firing <input type="checkbox"/> Loading/unloading gun <input type="checkbox"/> Cleaning gun <input type="checkbox"/> Showing gun to others <input type="checkbox"/> Playing with gun <input type="checkbox"/> Other context of injury</p> <p>Mechanism of injury: Why did the injury occur? (Check all that apply): <input type="checkbox"/> Thought safety was engaged <input type="checkbox"/> Thought gun was unloaded, magazine was disengaged <input type="checkbox"/> Thought gun was unloaded, other <input type="checkbox"/> Unintentionally pulled trigger</p>

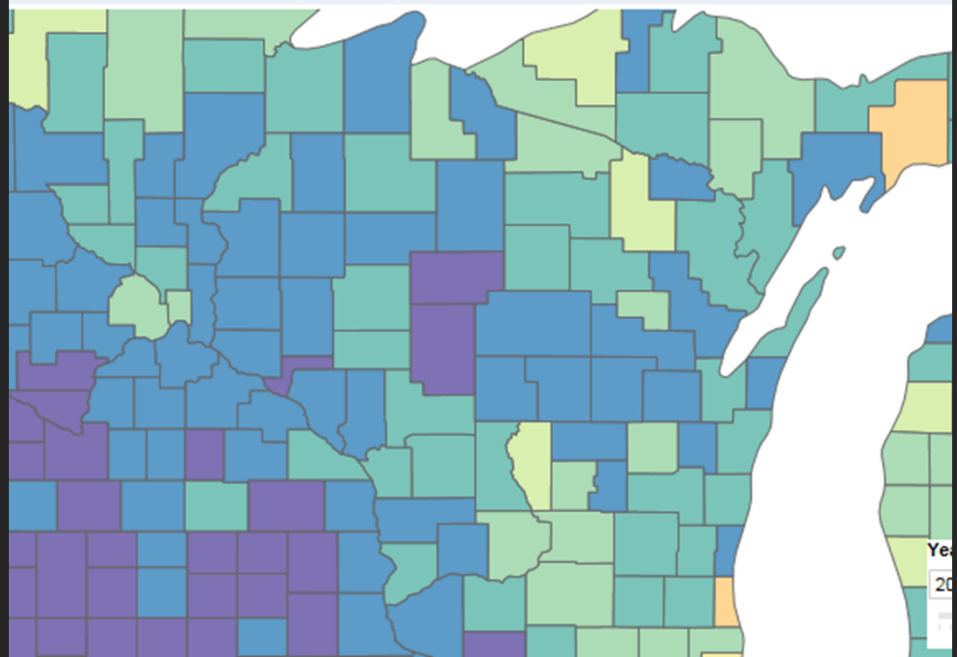
**Estimated Age-adjusted Death Rates§ for Drug Poisoning
by County, United States: 2001**



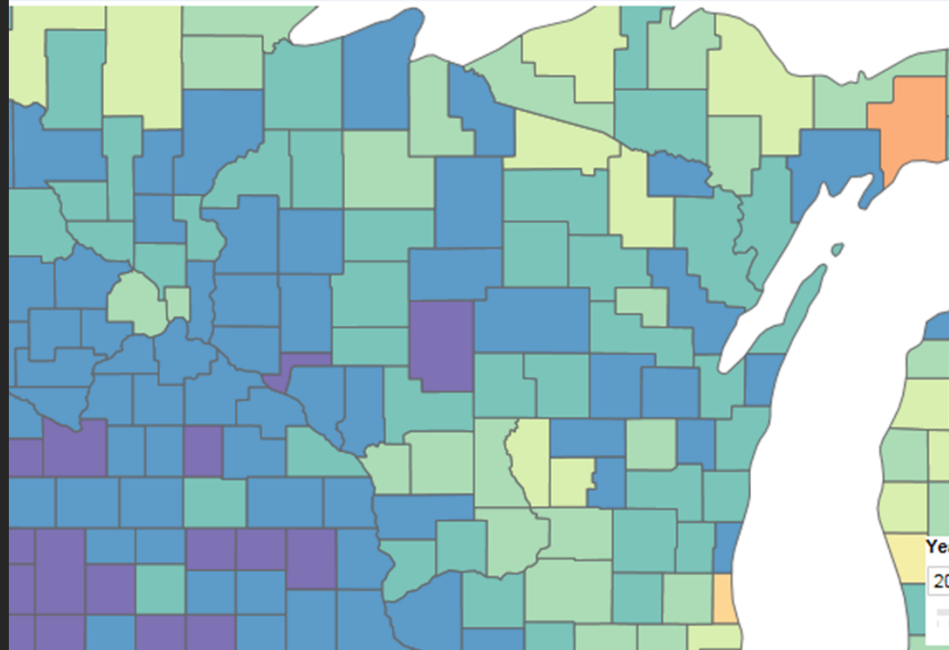
**Estimated Age-adjusted Death Rates§ for Drug Poisoning
by County, United States: 2002**



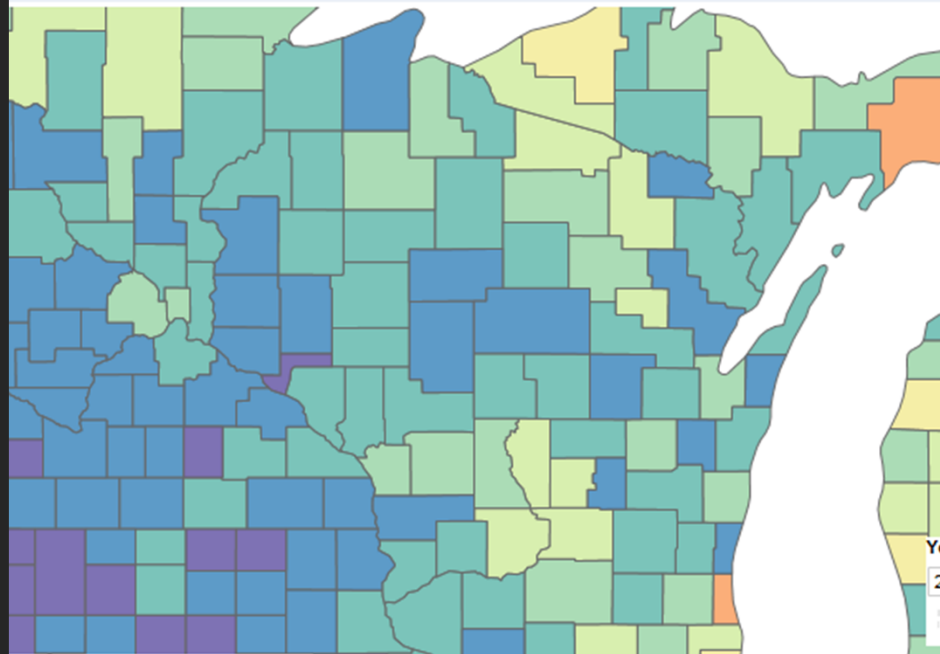
**Estimated Age-adjusted Death Rates_s for Drug Poisoning
by County, United States: 2003**



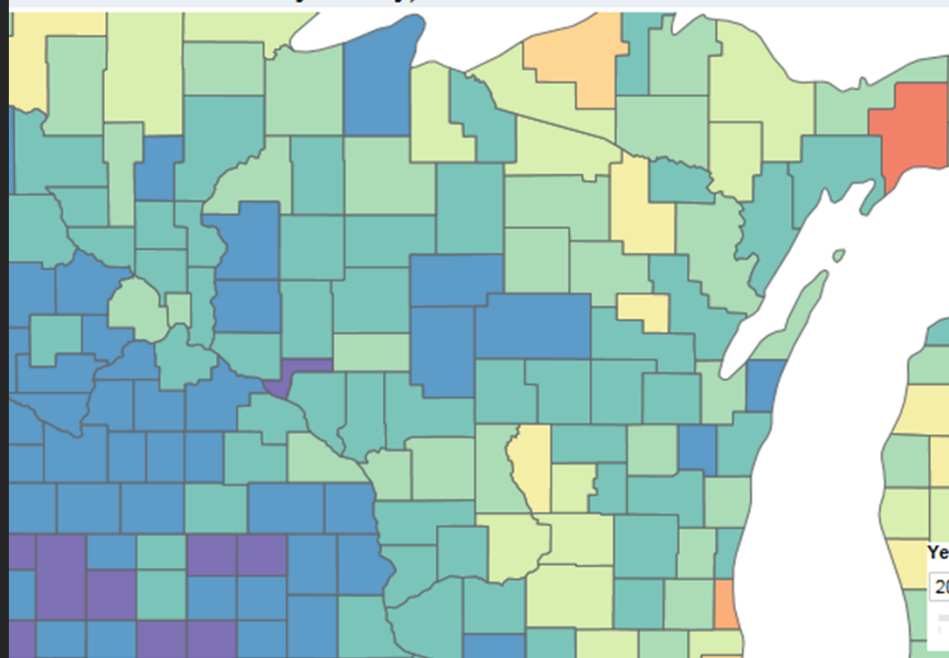
**Estimated Age-adjusted Death Rates§ for Drug Poisoning
by County, United States: 2004**



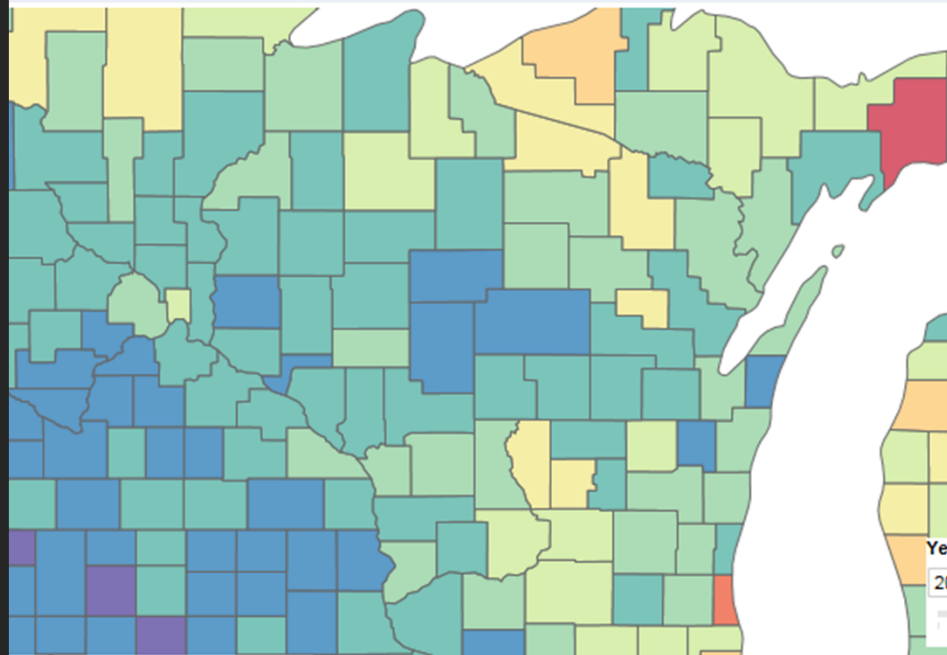
**Estimated Age-adjusted Death Rates§ for Drug Poisoning
by County, United States: 2005**



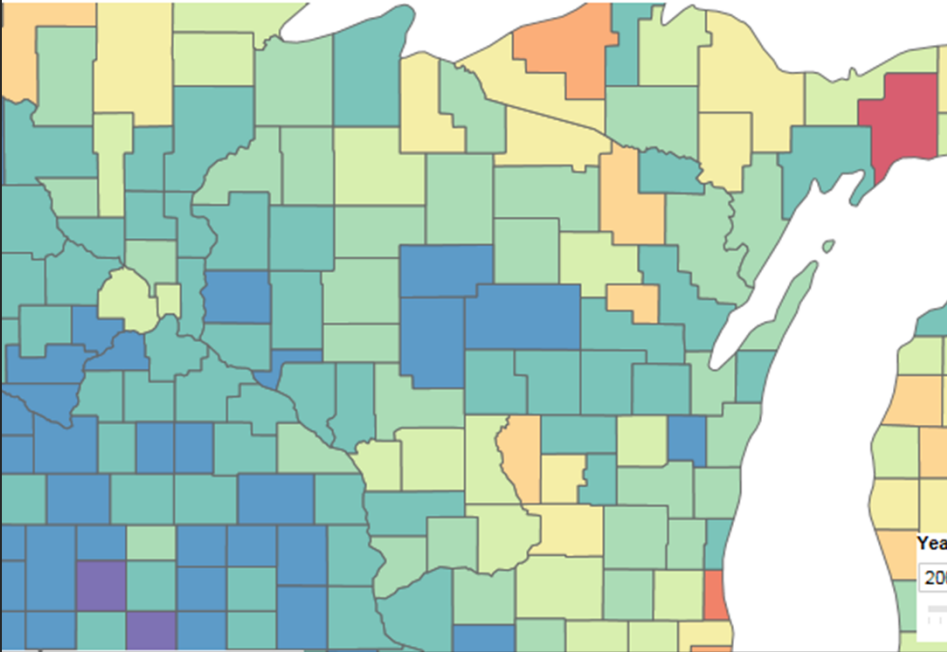
**Estimated Age-adjusted Death Rates§ for Drug Poisoning
by County, United States: 2006**



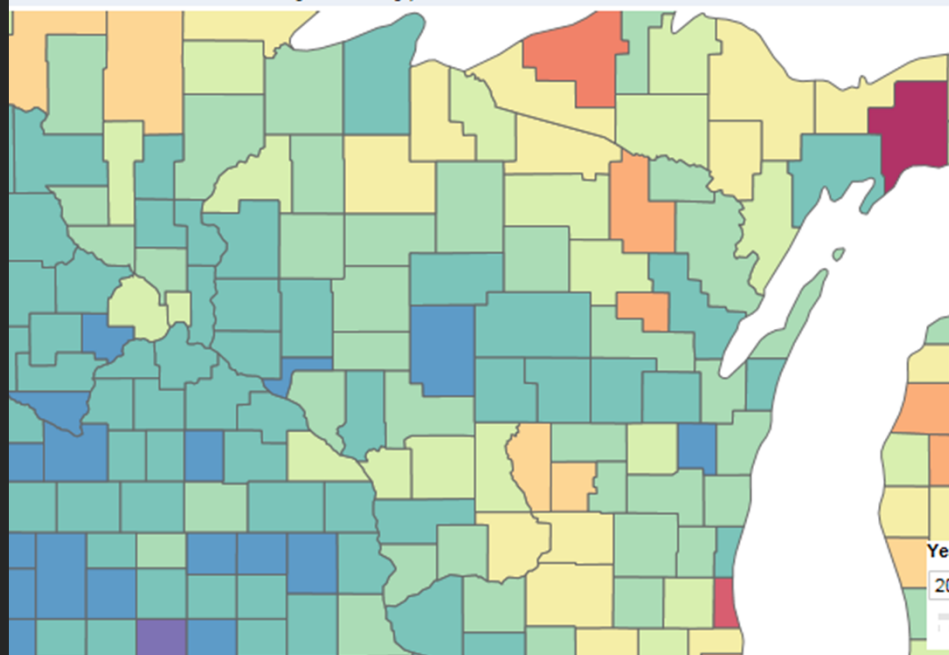
**Estimated Age-adjusted Death Rates§ for Drug Poisoning
by County, United States: 2007**



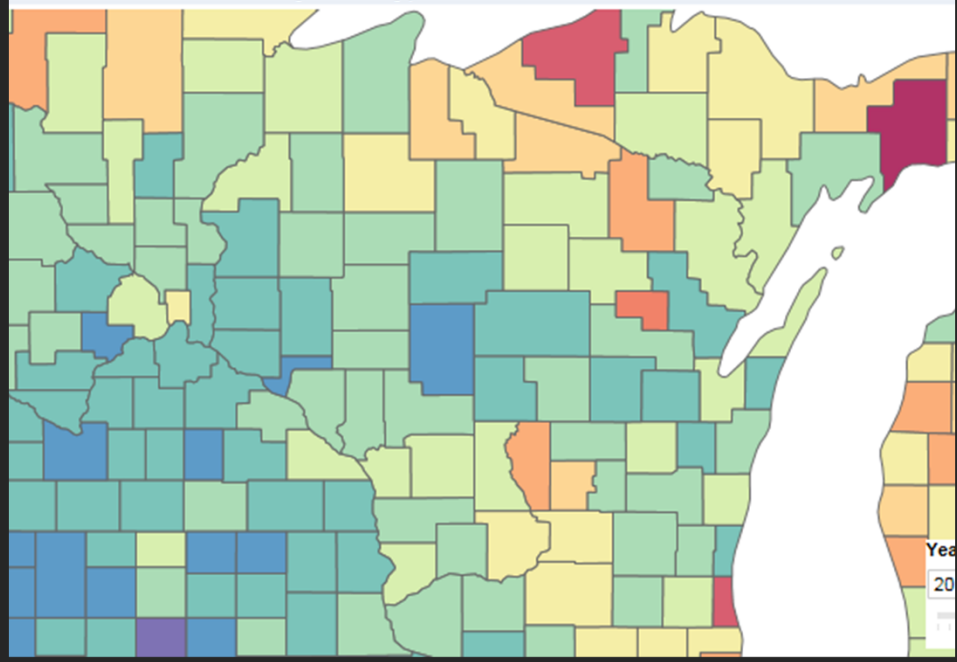
**Estimated Age-adjusted Death Rates§ for Drug Poisoning
by County, United States: 2008**



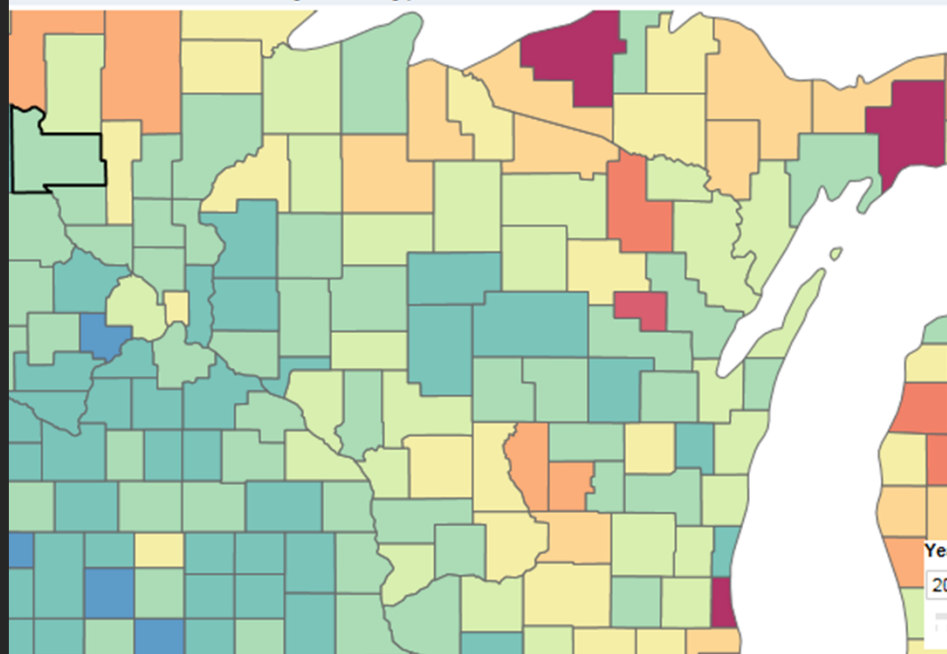
**Estimated Age-adjusted Death Rates§ for Drug Poisoning
by County, United States: 2009**



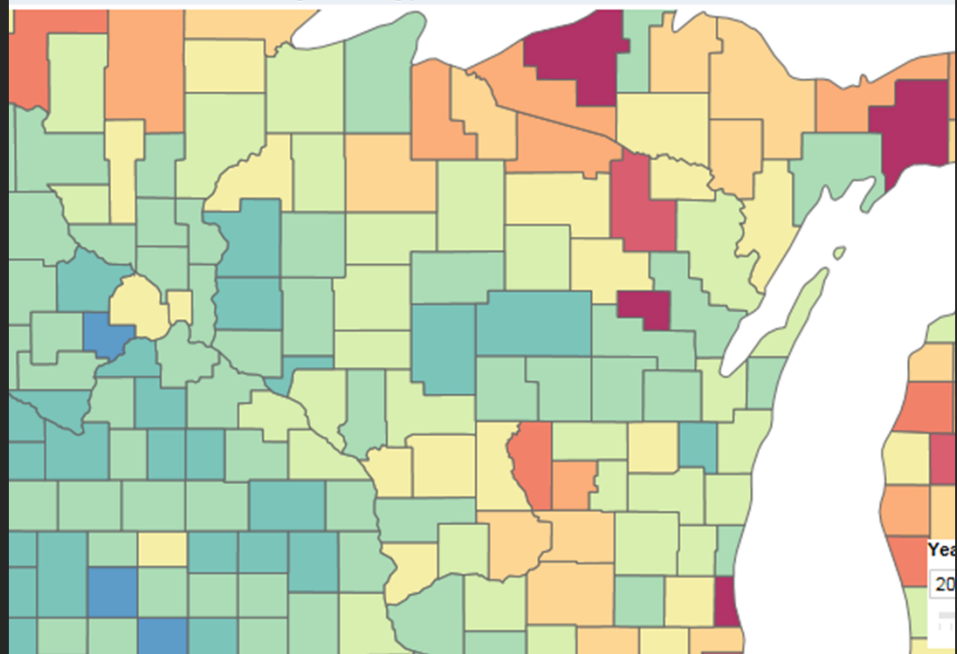
**Estimated Age-adjusted Death Rates§ for Drug Poisoning
by County, United States: 2010**



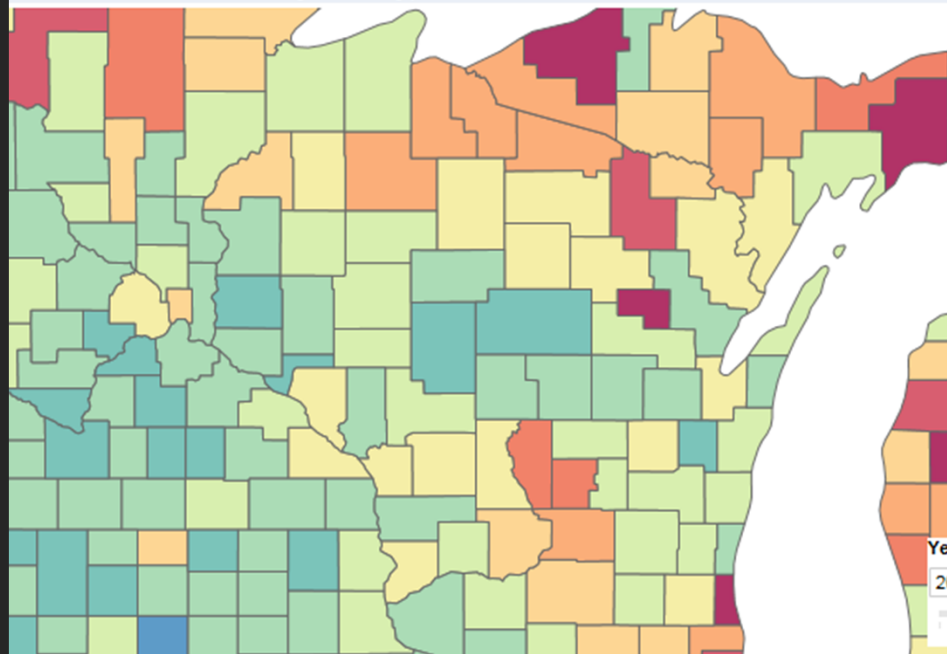
Estimated Age-adjusted Death Rates§ for Drug Poisoning
by County, United States: 2011



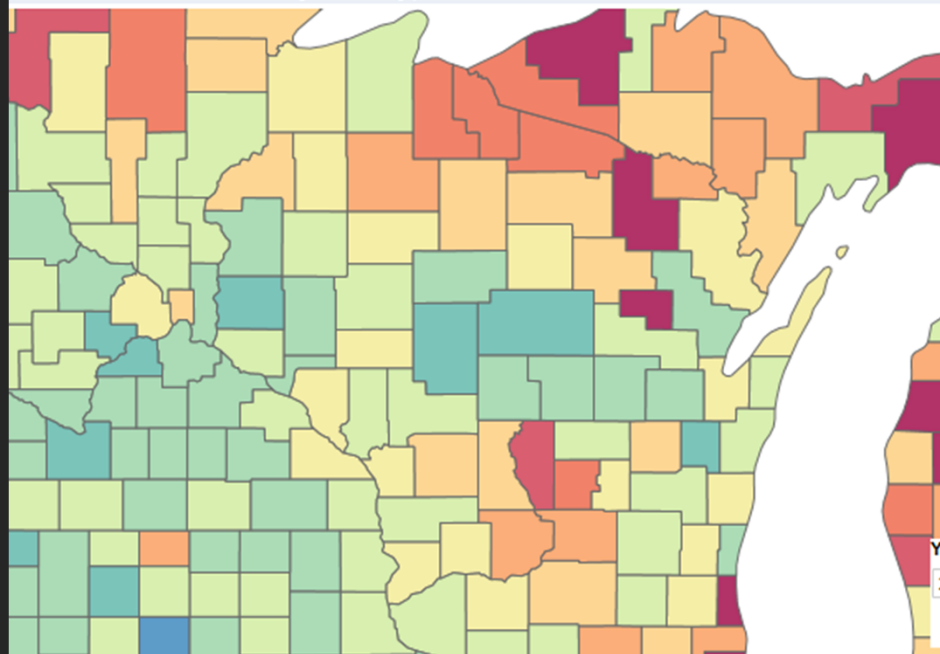
Estimated Age-adjusted Death Rates§ for Drug Poisoning
by County, United States: 2012



**Estimated Age-adjusted Death Rates_s for Drug Poisoning
by County, United States: 2013**



Estimated Age-adjusted Death Rates§ for Drug Poisoning
by County, United States: 2014



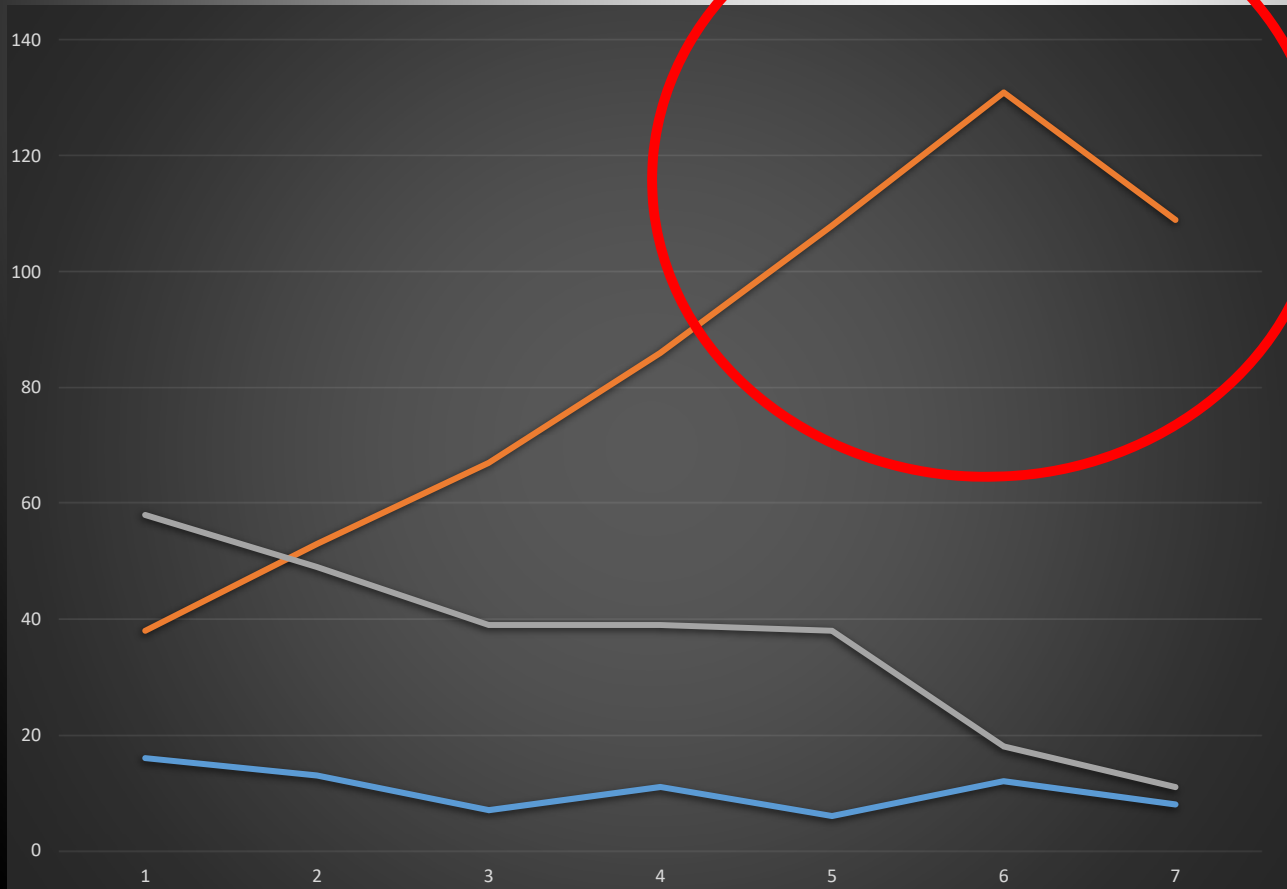
POSTMORTEM DATA COLLECTION

ADVANTAGES

- Confirmed cause of death
- Granular data – ALL drugs detected
- County/State/National data available
- Actions can be directed to root causes, large trends

LIMITATIONS

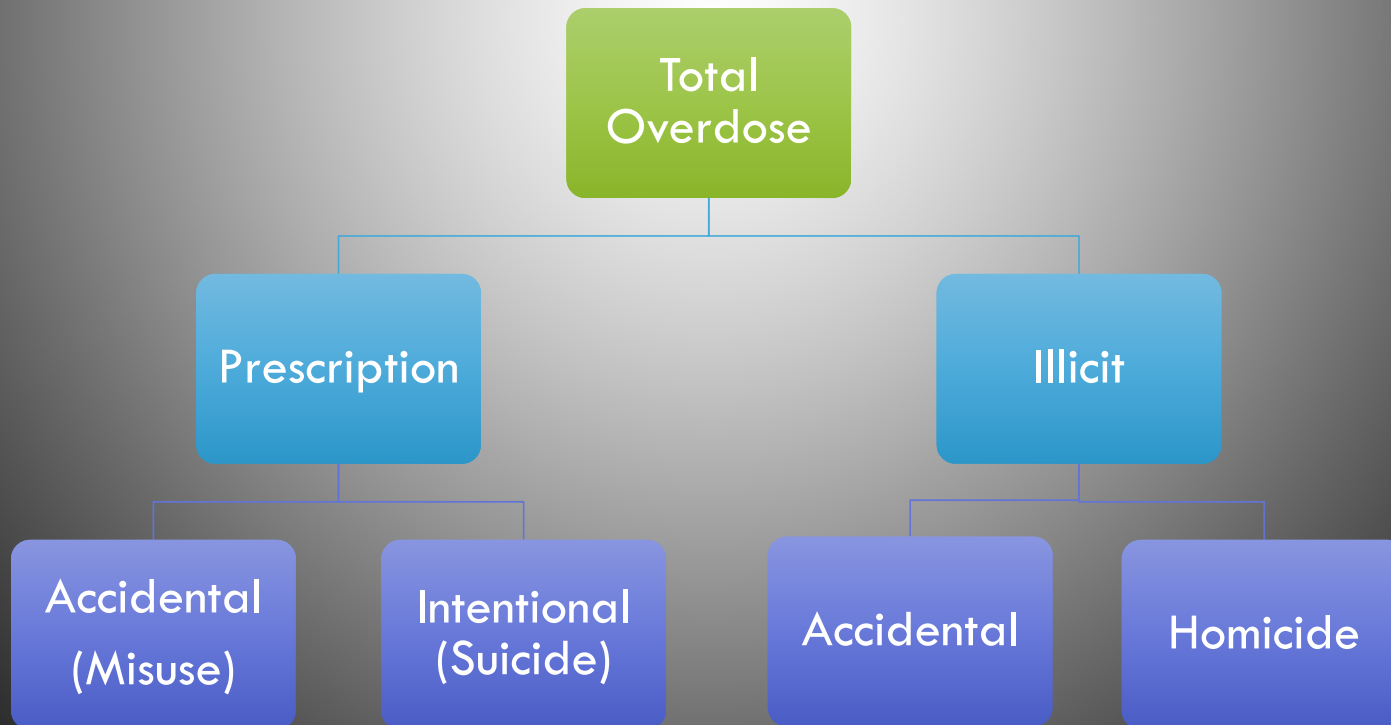
- Time
- Not able to apply in the moment



Incomplete data for year

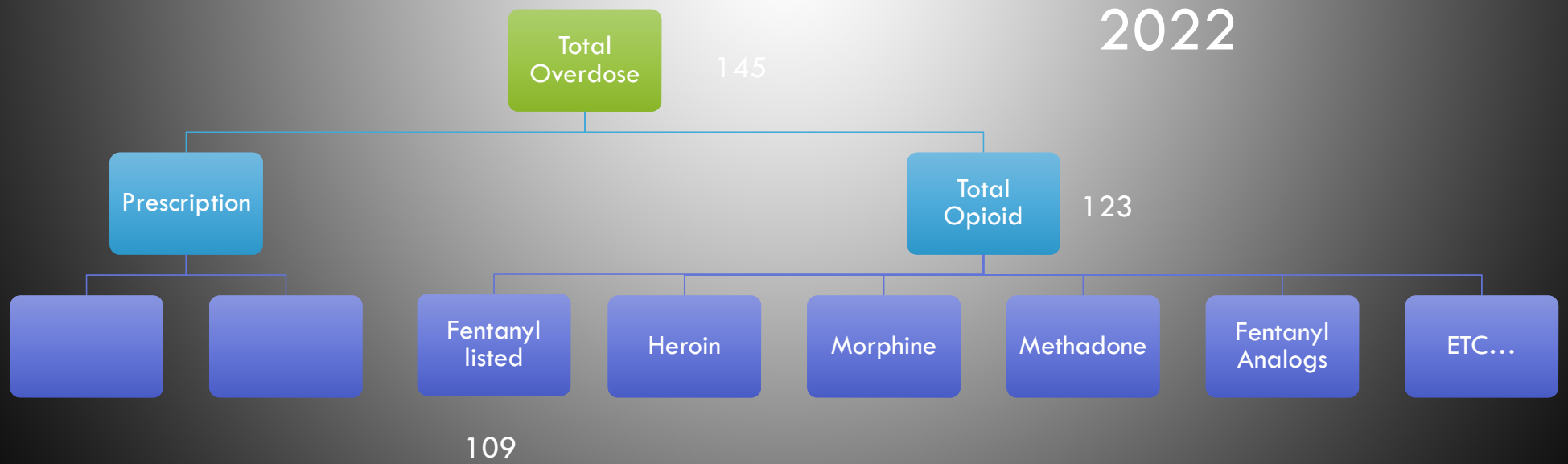
NOT a true decrease!

Understanding the Data and Relationships



- Classes (opiate/opioid)
 - Subcategories
 - Individual drugs

Understanding the Raw Data and Relationships



POSTMORTEM DATA COLLECTION

ADVANTAGES

- Confirmed cause of death
- County/State/National data available
- Actions can be directed to root causes, large trends

LIMITATIONS

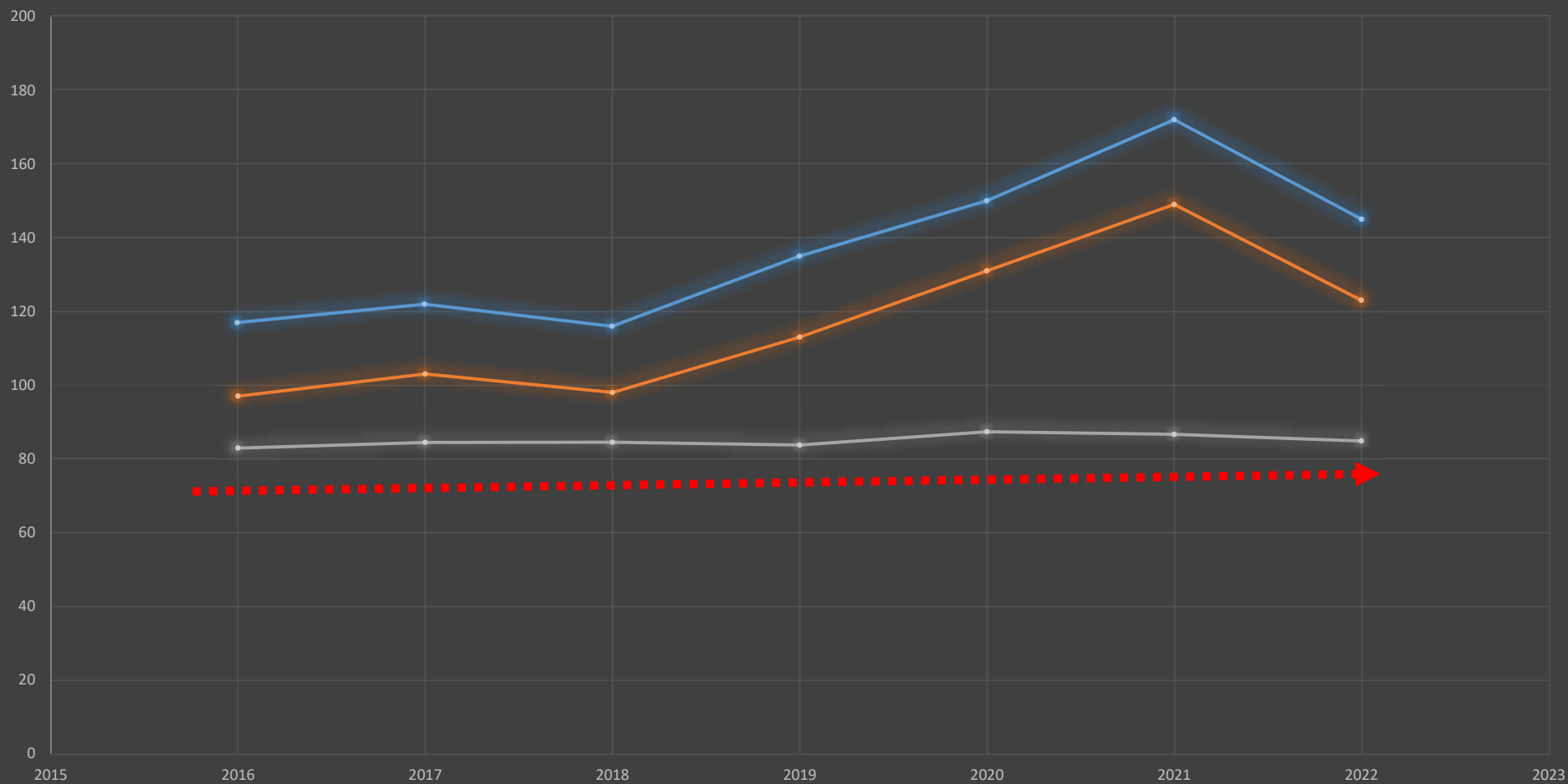
- Time
- Not able to apply in the moment
- Level of drugs out there may appear elevated due to MIXED intoxication

DANE COUNTY OPIATE/OPIOID RELATED DEATHS

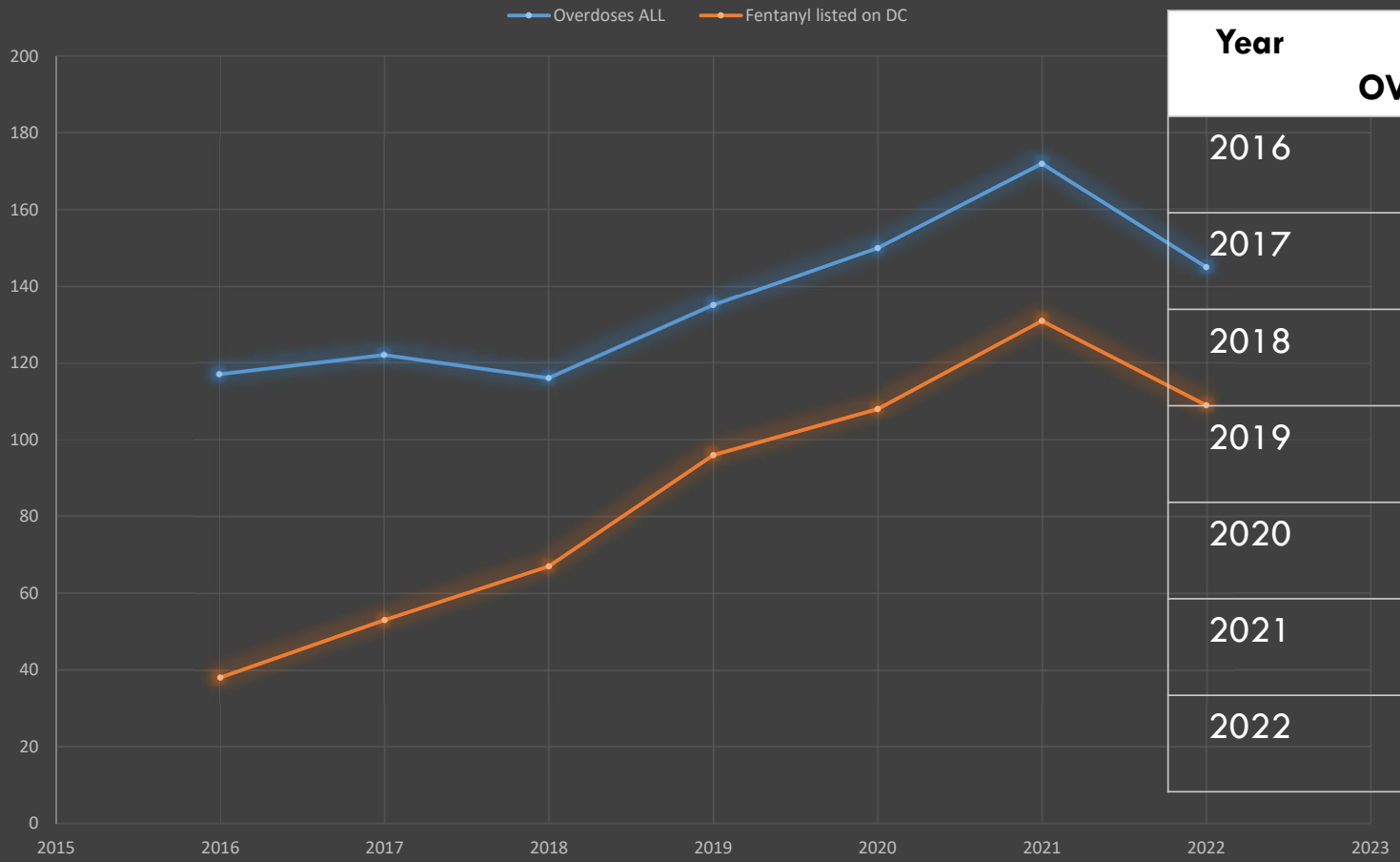
YEAR	Overdoses ALL	Total Opioid Related Deaths	% of overall OD that are opioid related	Fentanyl listed on DC	% of overall OD that include Fentanyl
2022	145	123	84.82	109	75.17
2021	172	149	86.63	131	76.16
2020	150	131	87.33	108	72.00
2019	135	113	83.70	96	71.11
2018	116	98	84.48	67	57.76
2017	122	103	84.43	53	43.44
2016	117	97	82.91	38	32.48

Opioid Deaths as Percentage of ALL Overdoses

Overdoses ALL Total Opioid Related Deaths % of overall OD that are opioid related

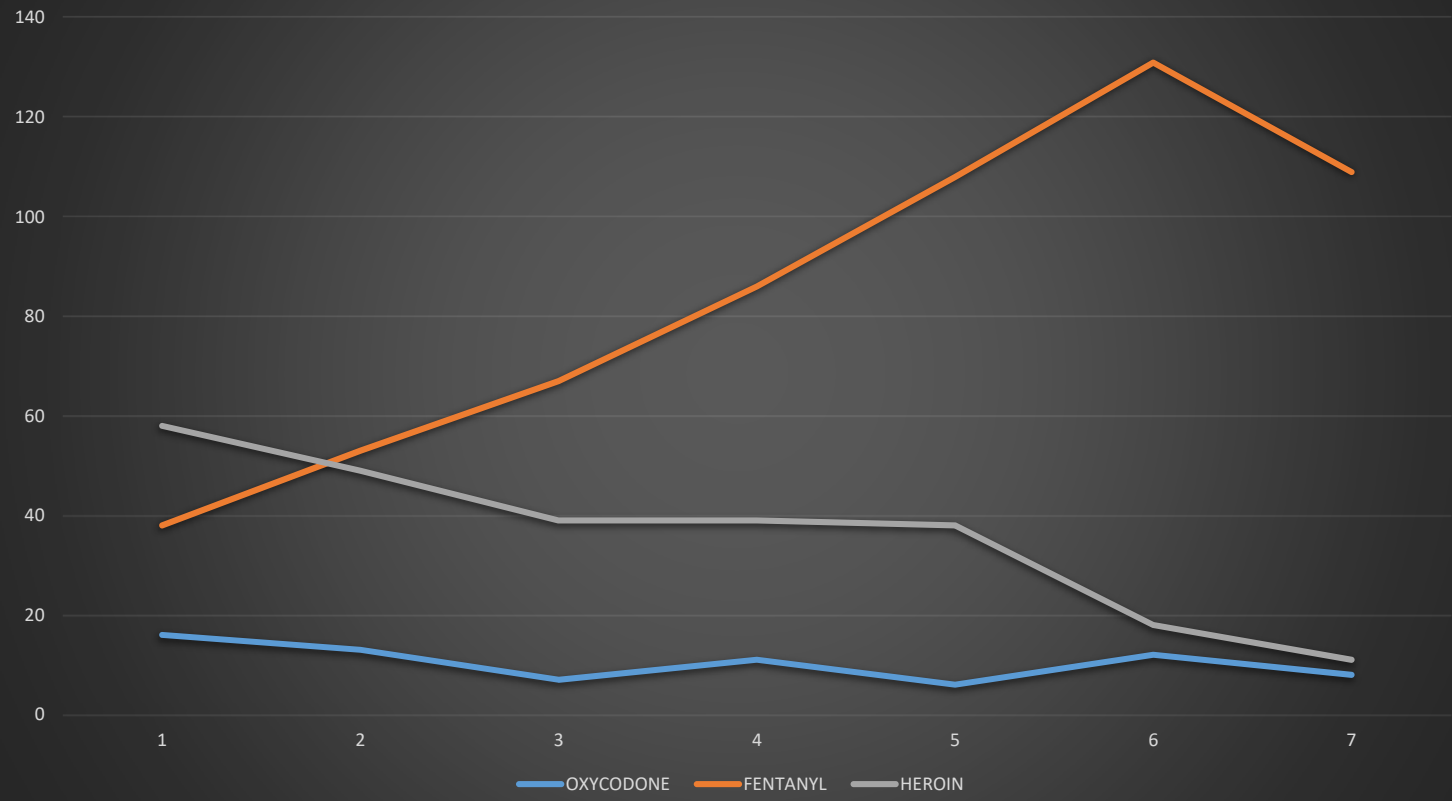


Fentanyl % of ALL Overdoses

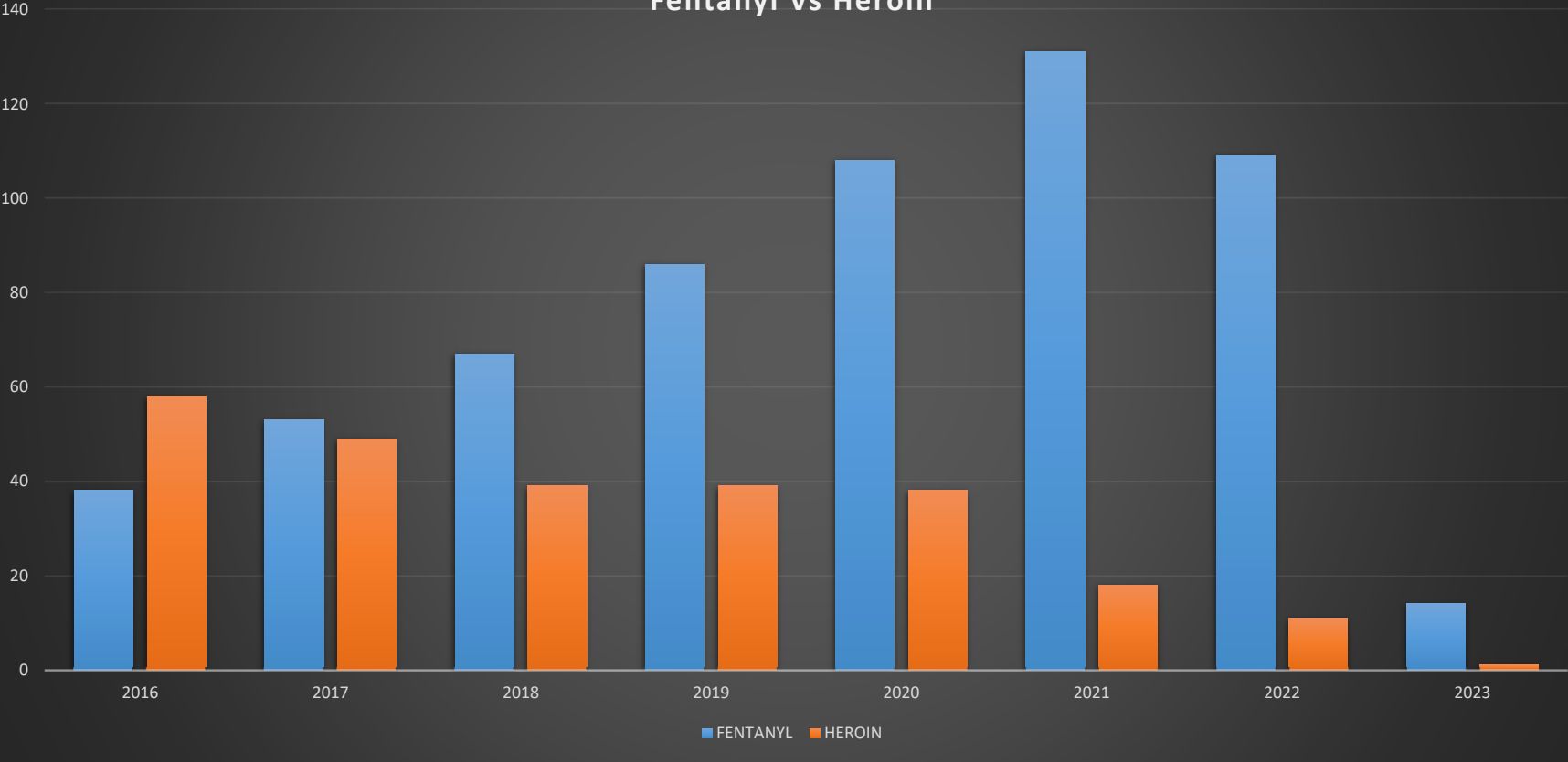


Year	ALL OVERDOSE	Fentanyl Listed
2016	117	38
2017	122	53
2018	116	67
2019	135	96
2020	150	108
2021	172	131
2022	145+	109+

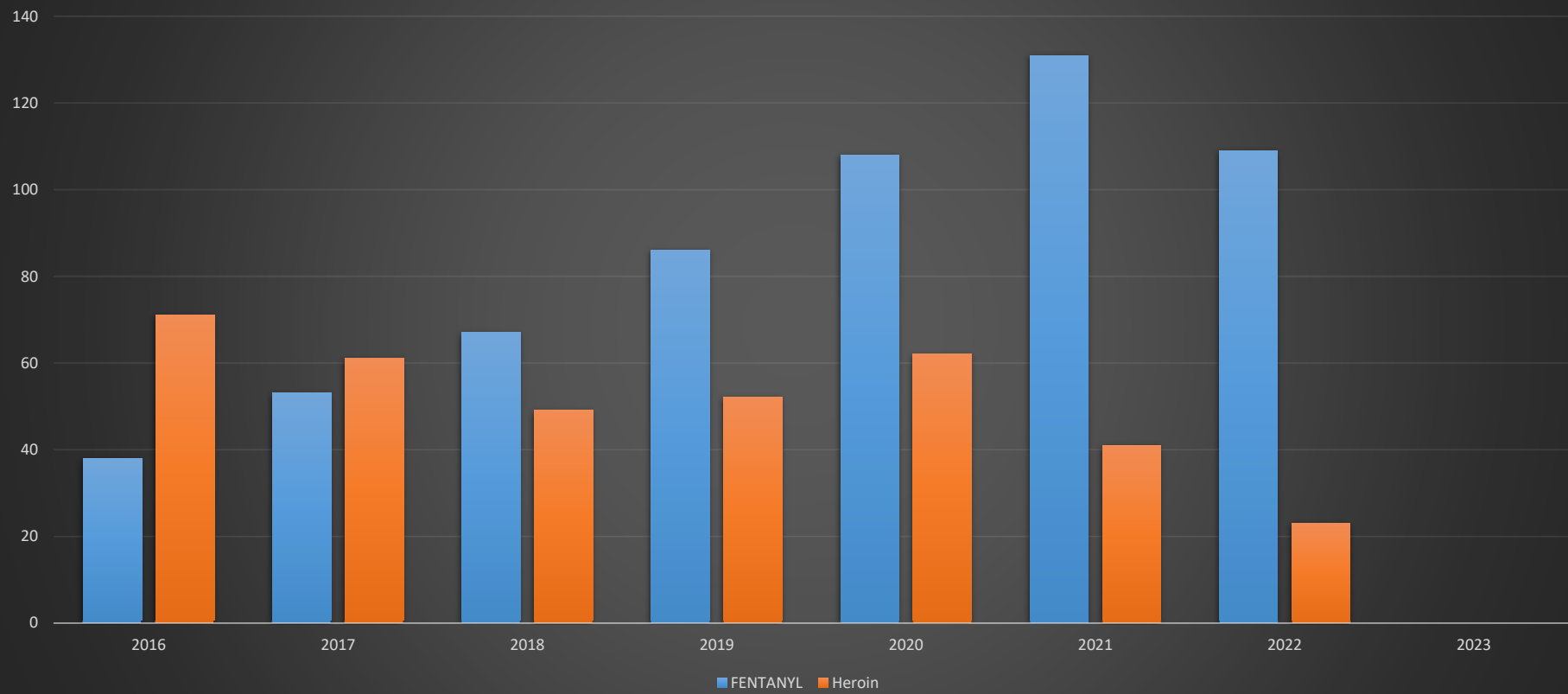
Oxycodone Fentanyl Heroin



Fentanyl Vs Heroin

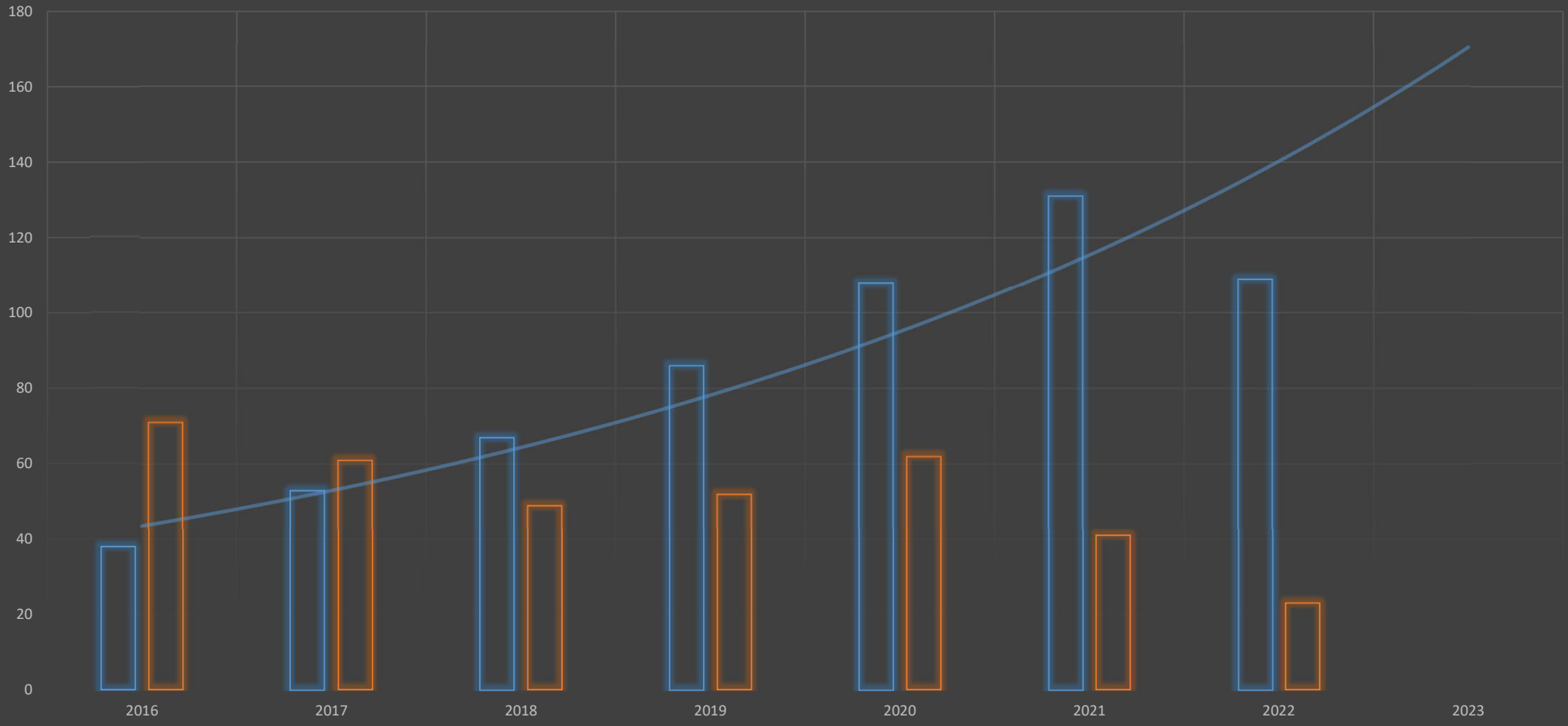


Fentanyl vs. Heroin + Morphine

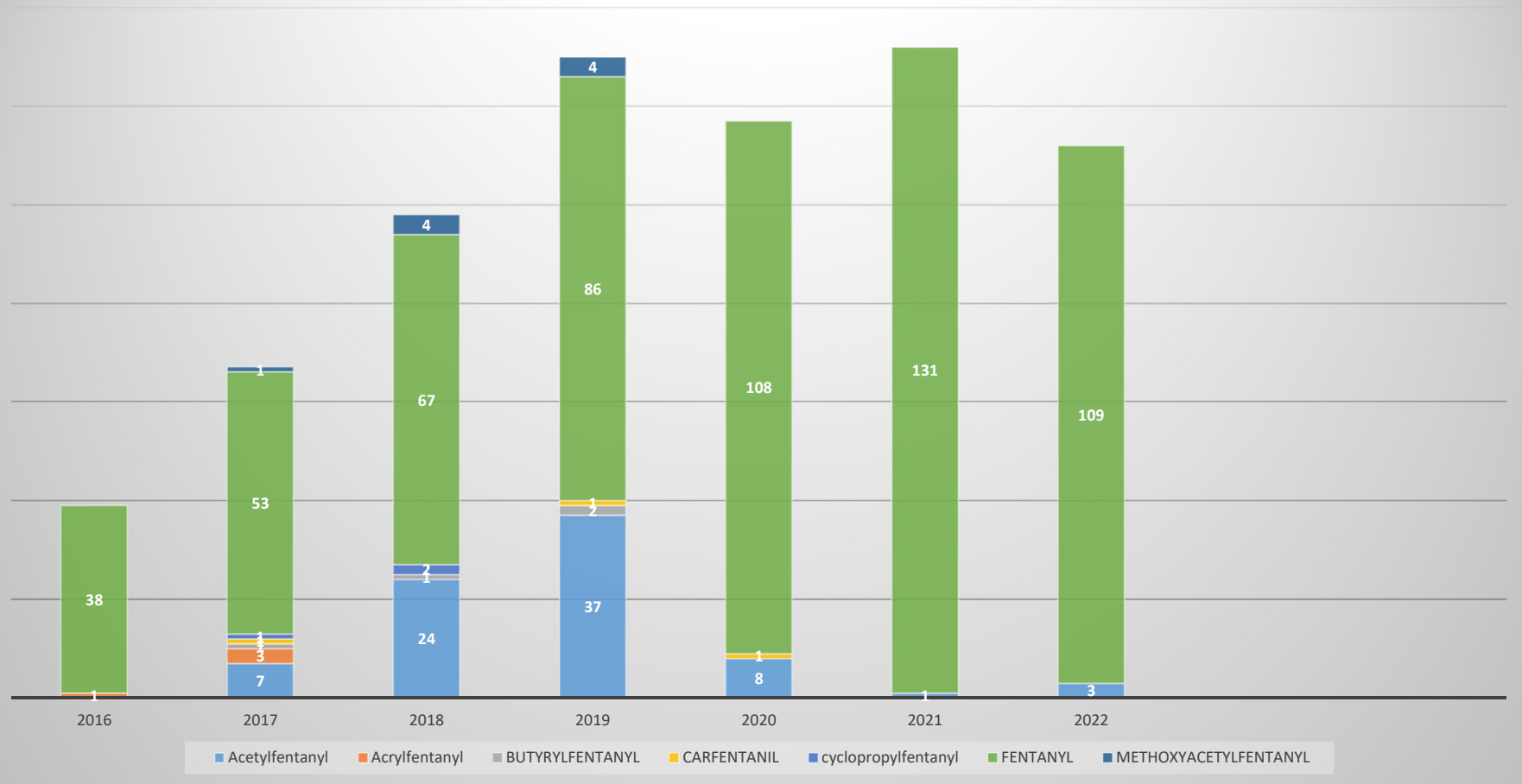


FENTANYL PROJECTION

FENTANYL Heroin Expon. (FENTANYL)



Fentanyl vs. Analogues

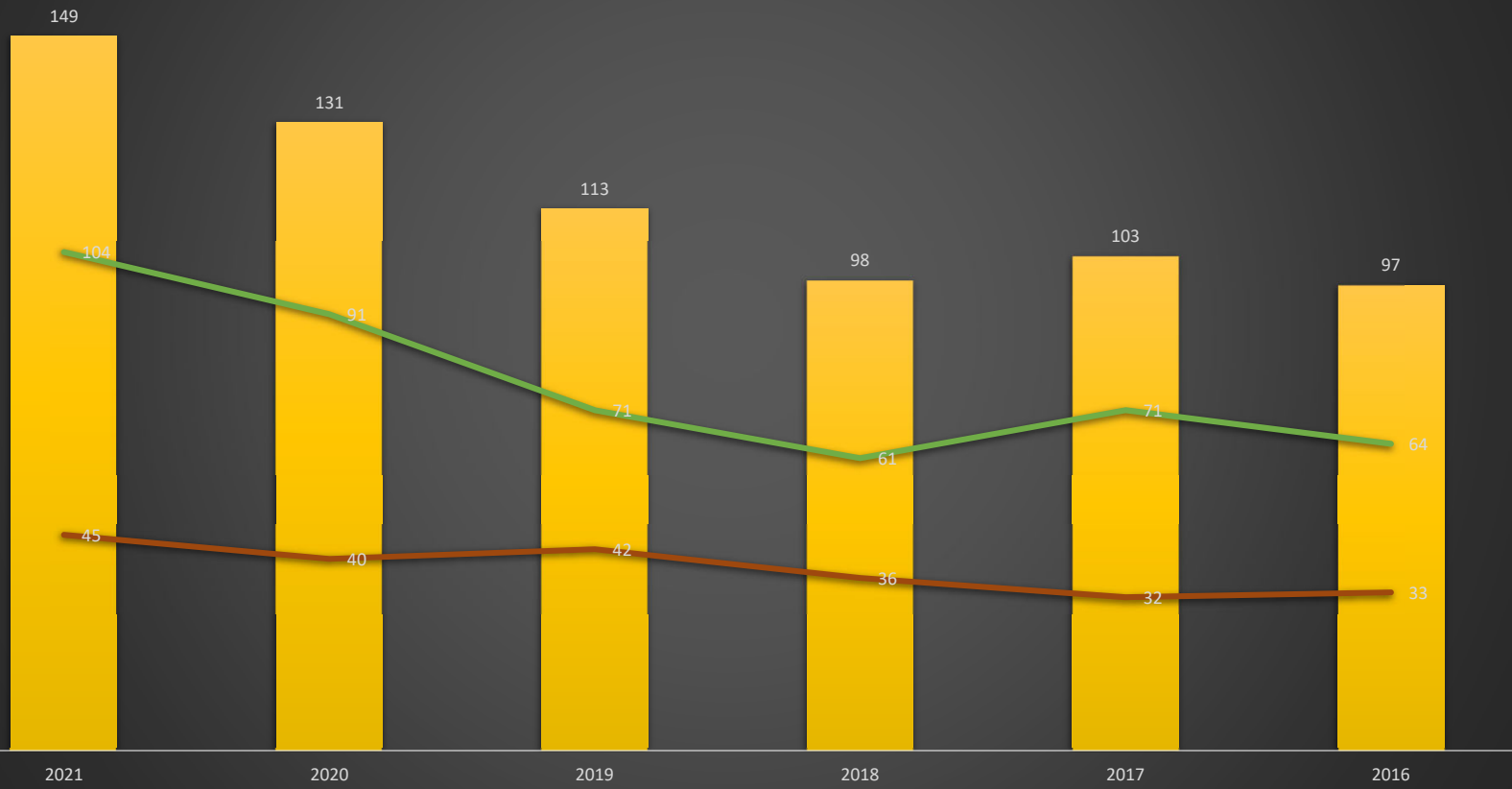


Stereotypes of addiction

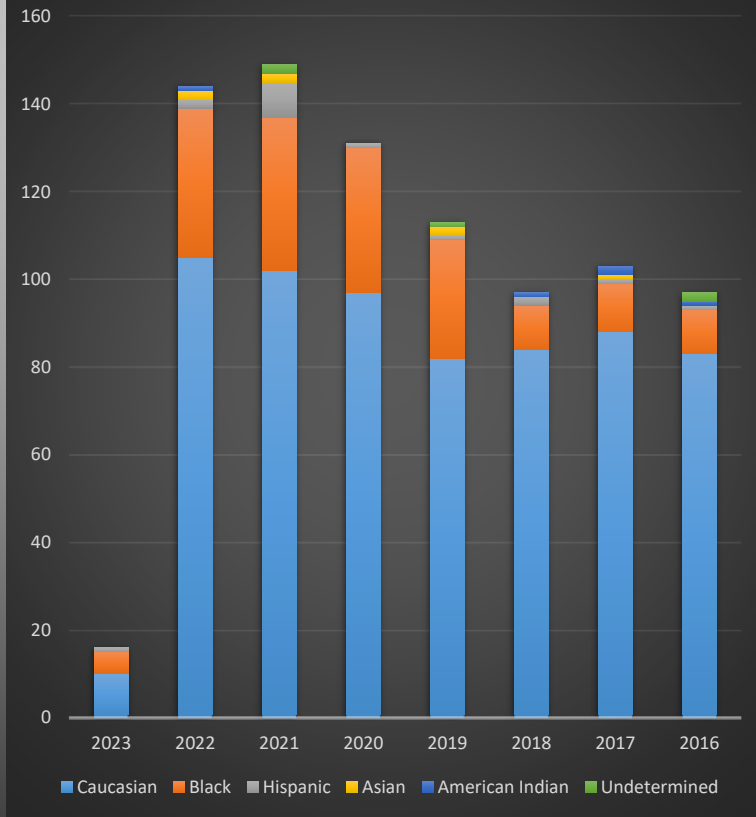


Gender

OPIOID RELATED DEATHS MALE FEMALE

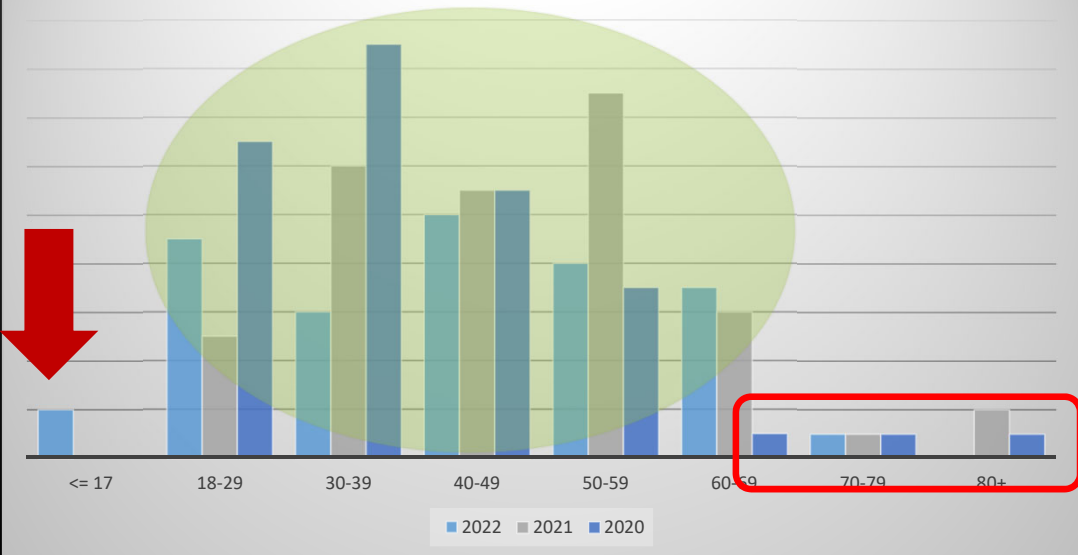


Race/Ethnicity

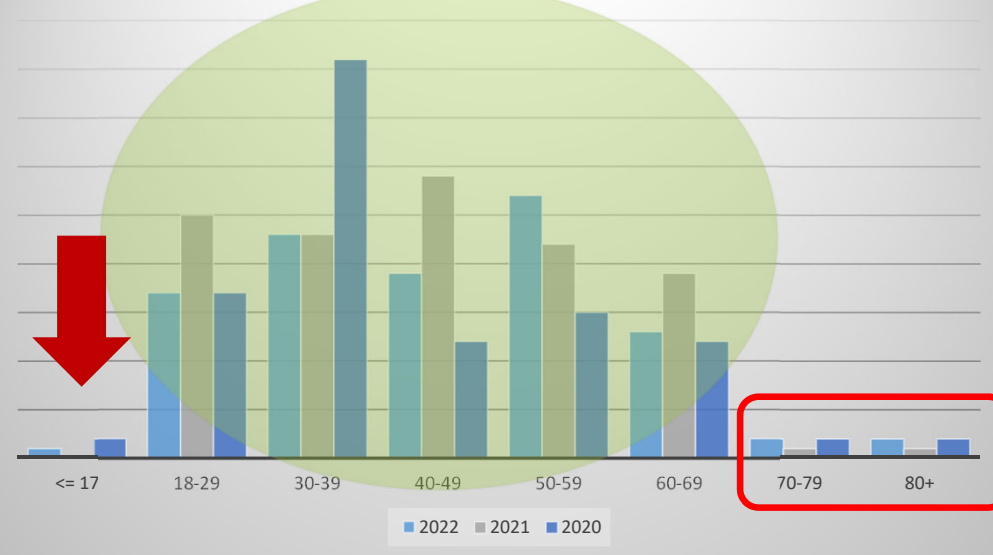


* Infant deaths

Female Age Groups



Male Age Groups





THANK YOU

ROGALSKA.AGNIESZKA@COUNTYOFDANE.COM