American Youth Intentional Drugs-Opioids Fatal Overdose: The Magnitude of the Problem and Improved Assessment of Intentionality

Yifrah Kaminer, MD, MBA
Departments of Psychiatry and Pediatrics
University of Connecticut
August 9th, 2022

Webinar Faculty

Yifrah Kaminer, MD, MBA

Department of Psychiatry and Pediatrics

Alcohol Research Center

University of Connecticut School of Medicine

Many Thanks

- Rebecca Burke, MS: Research associate
- James Gill, MD: Chief Medical Examiner State of Connecticut
- Jane Ungemac, PhD: Department of Public Health Sciences University of Connecticut

Disclosure

- The study and presentation have been supported by a research fund from the University of Connecticut School of Medicine

- Dr. Kaminer has been receiving royalties for professional books on youth addictive disorders from: The American Psychiatric Association Publishing; Francis & Taylor, and Hazelden

Target Audience

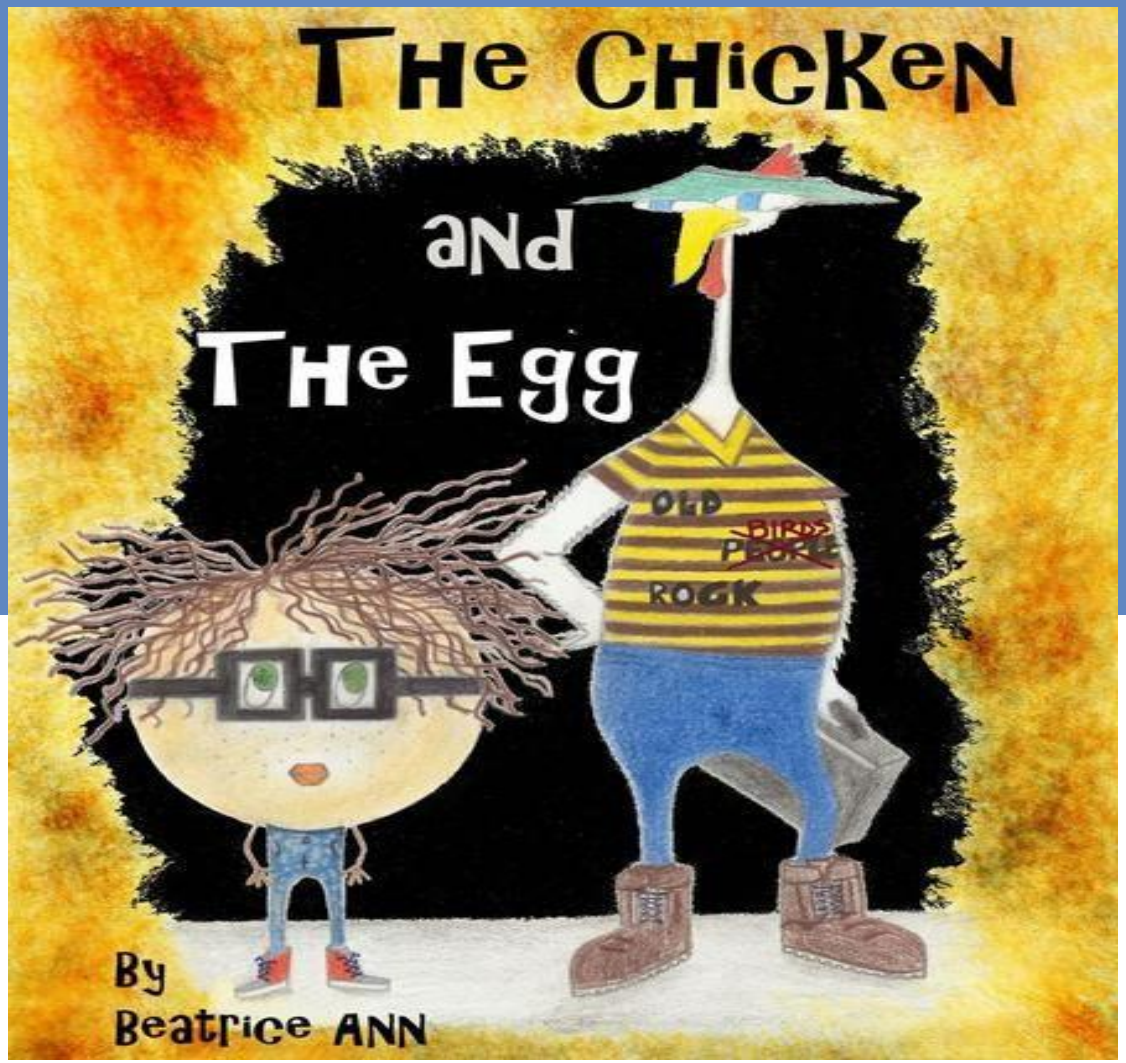
The overarching goal of PCSS is to train healthcare professionals in evidence-based practices for the prevention and treatment of opioid use disorders, particularly in prescribing medications, as well for the prevention and treatment of substance use disorders.

Educational Objectives

- At the conclusion of this activity participants should be able to:
  - Get familiarized with the association between substance use and suicidal behavior
  - Understand the magnitude of Fatal Drug Intoxication in the State of Connecticut, USA
  - Recognize the limitations of the system responsible for determining manner of death including “intentionality” as it pertains to the opioids-polysubstance use epidemic

Terminology

- Fatal Drug Intoxication (**FDI**): A Medical Examiner's recommended term inclusive of the term Overdose commonly used for opioids
- **Youth:** A term inclusive of the group 10-25 years of age
- **Intent:** Suicide is defined as death in which decedents intended to die (intent: comprising of cognitive and behavioral elements) and implemented the means
- **Manner of death:** Depends on the circumstances and for unnatural deaths include: accident, suicide, homicide, and undetermined
- **Cause of death:** The disease and/or injury that started the lethal train of events


The Chicken
and
The Egg
By
Beatrice ANN

Suicide in Youth

- Between the years 2000-19, the U.S. national suicide rate in youth aged 15 to 19 years increased from 8 to 12.8 per 100,000
- In young adults 20-24 years of age the national suicide rate increased from 12.5 to 17 per 100,000 (Am CDC data 2018 ;Miron et al. 2019)
- The majority of adults and youth (90%) with suicidal behavior suffered from a pre-existing diagnosable psychiatric disorder, including substance use disorder (Bachmann, 2018; Zalsman et al. 2016)
- Co-occurring substance use disorder and psychiatric disorder increase the likelihood of suicidal behavior (Esposito-Smythers et al. 2016; Goldston et al. 2020)

MDD & SUD: Implications for Suicidal Behavior

- The likelihood of suicide attempts increased by X2.5 with each additional psychiatric disorder. Goldston et al. (2009)
- Increased risk for suicidal behaviors is common for MDD or SUD and is higher for the dually diagnosed (X10-14).
- A WHO funded review of studies on youth completed suicide from Australia(2), Finland, G.B., Israel, Norway, Sweden(2), USA(5) (N=894 cases). It concluded that 42% had a mood disorder, 41% had SUD and 21% a disruptive disorder. Fleischmann et al. (2005)
- 39% of suicide cases were diagnosed with two or more disorders mostly mood, SUD, and disruptive disorders.
- 2005-2018 Nat'l Poison Data System: The % of under 19 Y.O. who had suicidal intent with opioids use increased from 13.9 to 21.2 Agrawal et al. J. Pediatr (2020)

Deaths of Despair

- A term used to describe the increases in premature mortality from: suicides and drug overdose
- “Association of despair with suicidality and substance misuse among young adults” Copeland WE et al. (JAMA Network Open June 23, 2020)
- The 3-month weighted prevalence of any despair was 19.5%
- Despair scores were associated with more suicidal thoughts and behaviors (OR:1.5, illicit drug use:1.7, opioid use:1.9.
- No consistent pattern of moderation by sociodemographic factors. Such as poverty and educational level.
- Empirical basis was found for Despair and several precursors of “Deaths of Despair”

Suicidal Motivation-Intentionality in Opioid OD

- A study of adult survivors of OOD regarding suicidal cognition prior to the most recent episode (Connery HS et al. 2019; 2022)
- No perceived risk of fatal OD: 40%
- Some: 1) desire to die:45%; 2) Intention to die:20%
- Correlation of moderate magnitude (p=.58)
- Careful assessment of suicidal intentionality may improve suicide risk solutions and prevention of OD

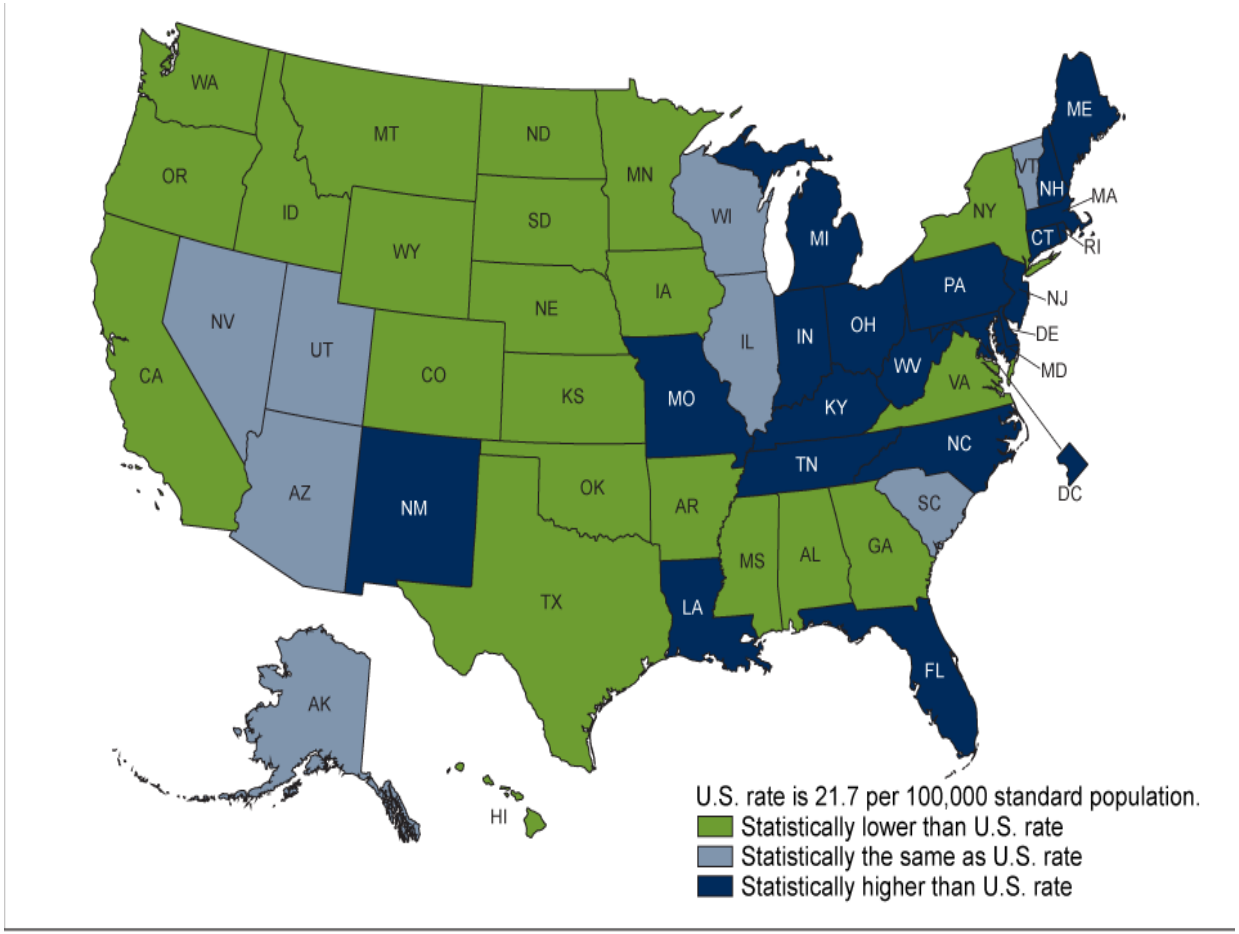
Opioids

- Heroin
- Morphine
- Codeine
- Methadone
- D-Propoxyphene
- Hydrocodone
- Meperidine
- Oxycodone
- Hydromorphone
- Fentanyl and analogues

Fentanyl

- Synthetic opioid pain medication with a rapid onset and short duration of action.
- 50 to 100 times more potent than morphine.
- Injection, snort, patch, sublingual
- Non-pharmaceutical (illicit) sold on street
- So-called Franken-Fentanyls (analogues):
  - Acetyl-, Methyl-, Acryl-, Fluoro-, Car-

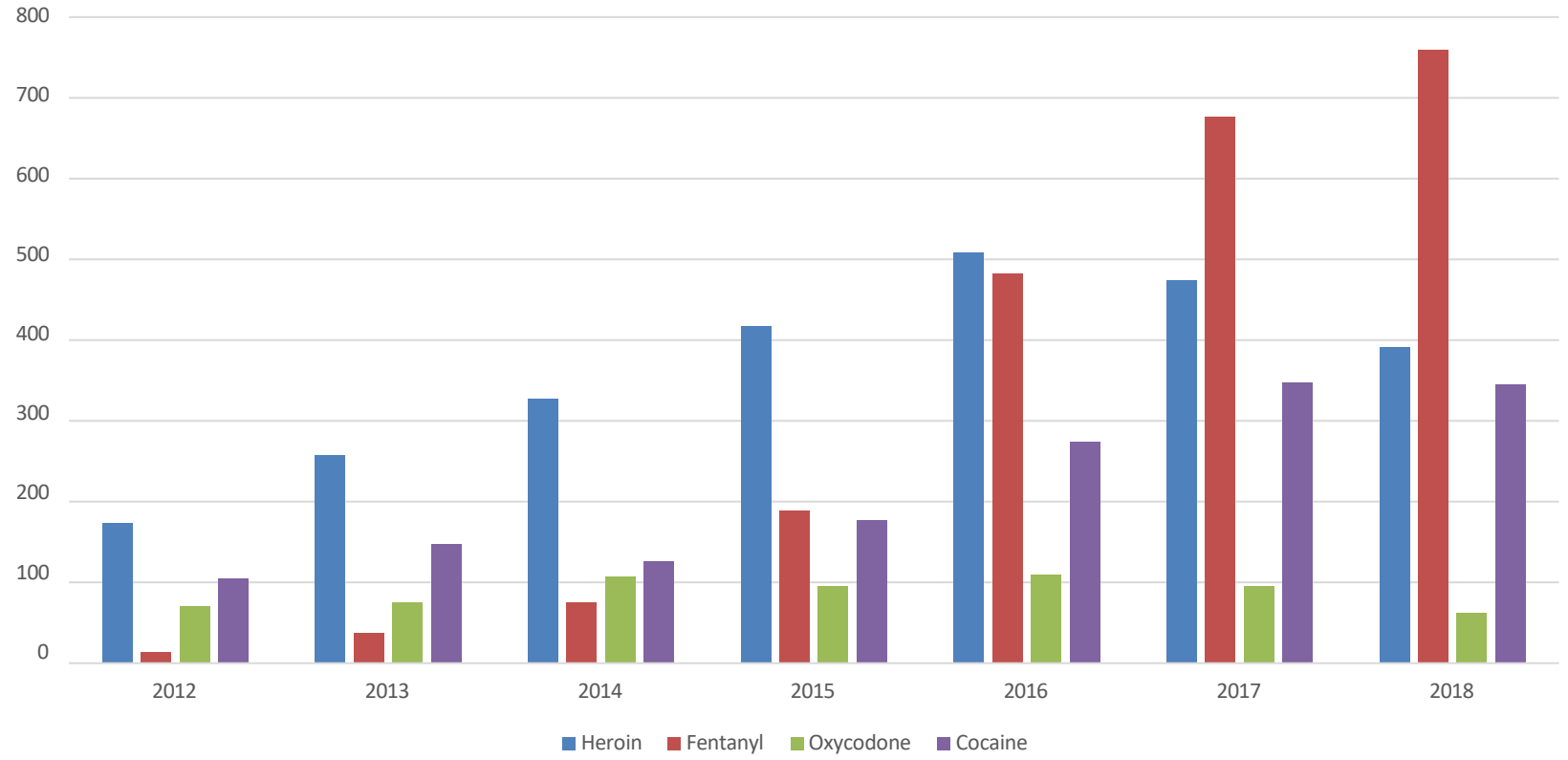
Age-adjusted Drug Overdose Death Rates, by State: United States, 2017



SOURCE: NCHS, National Vital Statistics System, Mortality

NOTES: Deaths are classified using the *International Classification of Diseases, 10th Revision*. Drug-poisoning (overdose) deaths are identified using underlying cause-of-death codes X40–X44, X60–X64, X85, and Y10–Y14. Access data table for Figure 3 at: https://www.cdc.gov/nchs/data/databriefs/db329_tables-508.pdf#3.

Specific Drugs in Accidental Fatalities, CT



PCSS Providers Clinical Support System

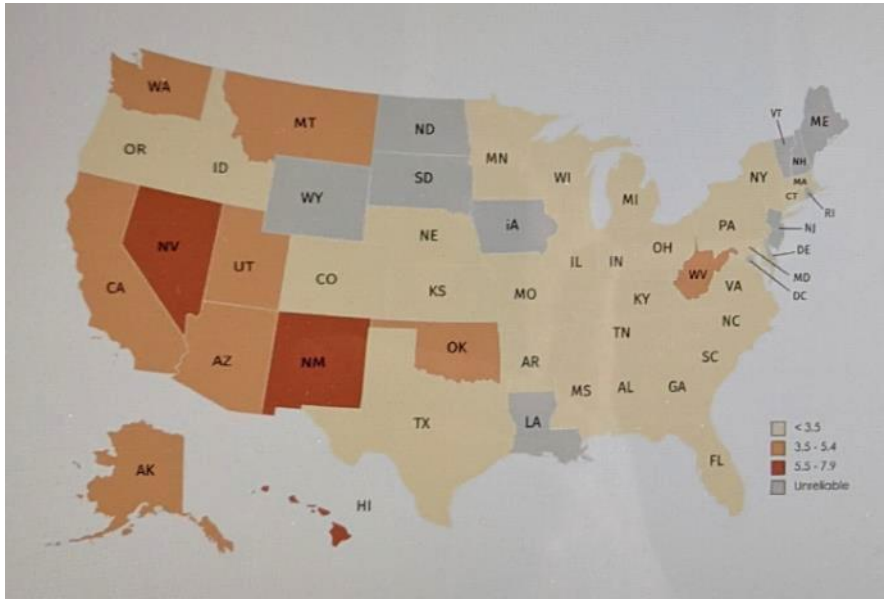
Fatal OD Increased in Youth Due to Fentanyl

- Fatal OD rose sharply from 2020 in teens (after being stable from 2010 to 2019; 2.4 per 100,000 population)
- 2020: 4.57; (OD mortality increased by 94%)
- 2021:5.49; (OD mortality rose by additional 20%)
- Fentanyl was identified in 77% of deaths

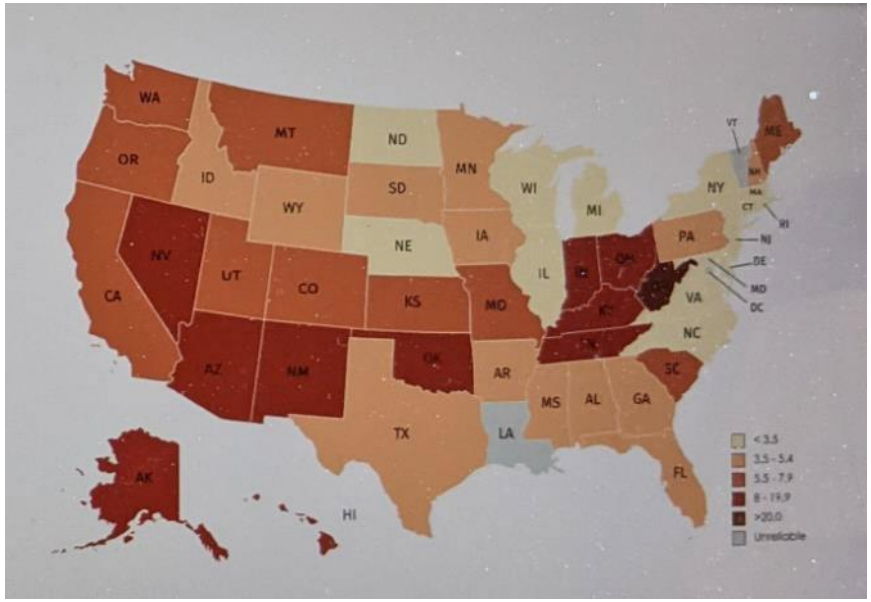
Friedman J et al. (JAMA 2022)

U.S. Overdose Deaths Involving Methamphetamine* Age-adjusted Rates/100k persons

2015



2019



* Psychostimulants With Abuse Potential ICD-10 code (T43.6). This category is dominated by methamphetamine-involved overdose deaths.

Polysubstance Use- the 4th Wave?

Polysubstance Use and Stimulants: A Dangerous Fourth Wave in the Opioid Crisis

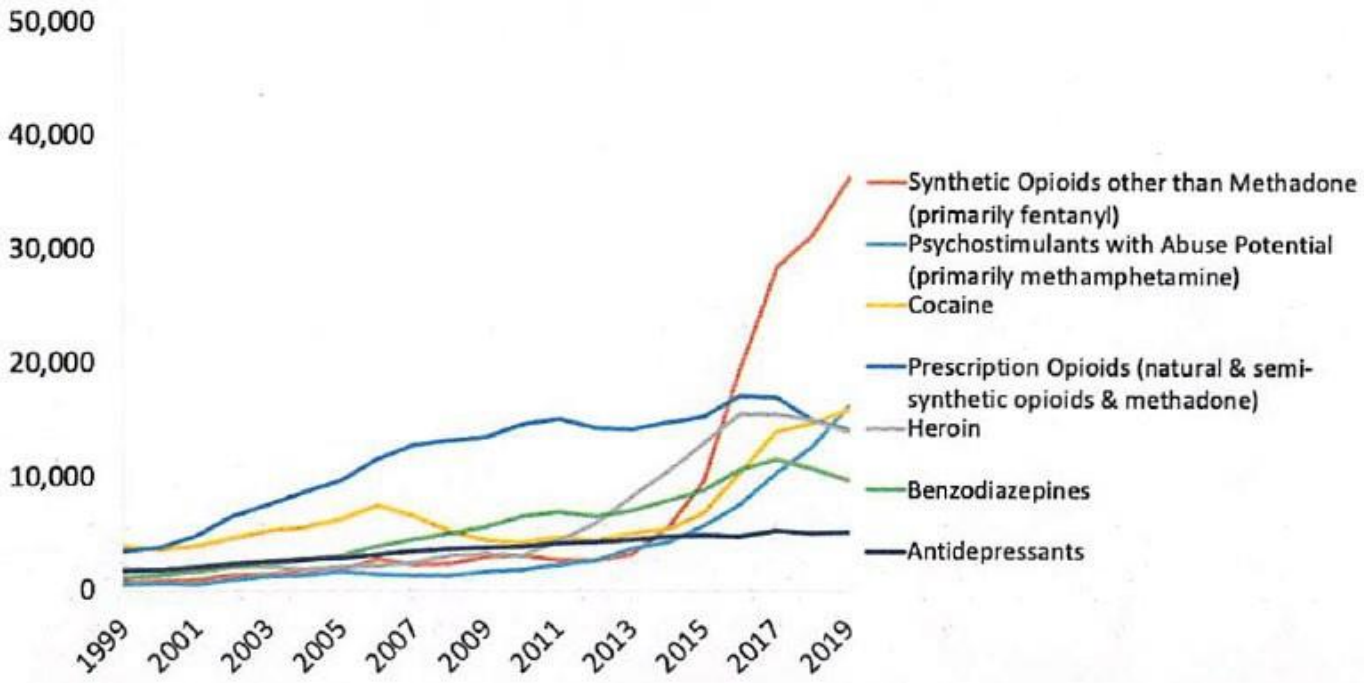
Seeing a worrisome rise in people using multiple substances, providers call for a renewed focus on the social factors underlying addiction.

By Ray Hainer | June 13, 2019

Source:
Hainer R. Polysubstance Use and Stimulants: A Dangerous Fourth Wave in the Opioid Crisis. Retrieved from: https://www.bmc.org/healthcity/population-health/polysubstance-use-dangerous-fourth-wave- opioid-crisis

PCSS Providers Clinical Support System

Overdose Deaths: Number National Drug-Involved All Ages, 1999-2019



*Includes deaths with underlying causes of unintentional drug poisoning (X40–X44), suicide drug poisoning (X60–X64), homicide drug poisoning (X85), or drug poisoning of undetermined intent (Y10–Y14), as coded in the International Classification of Diseases, 10th Revision. Source: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2019 on CDC WONDER Online Database, released 12/2020.

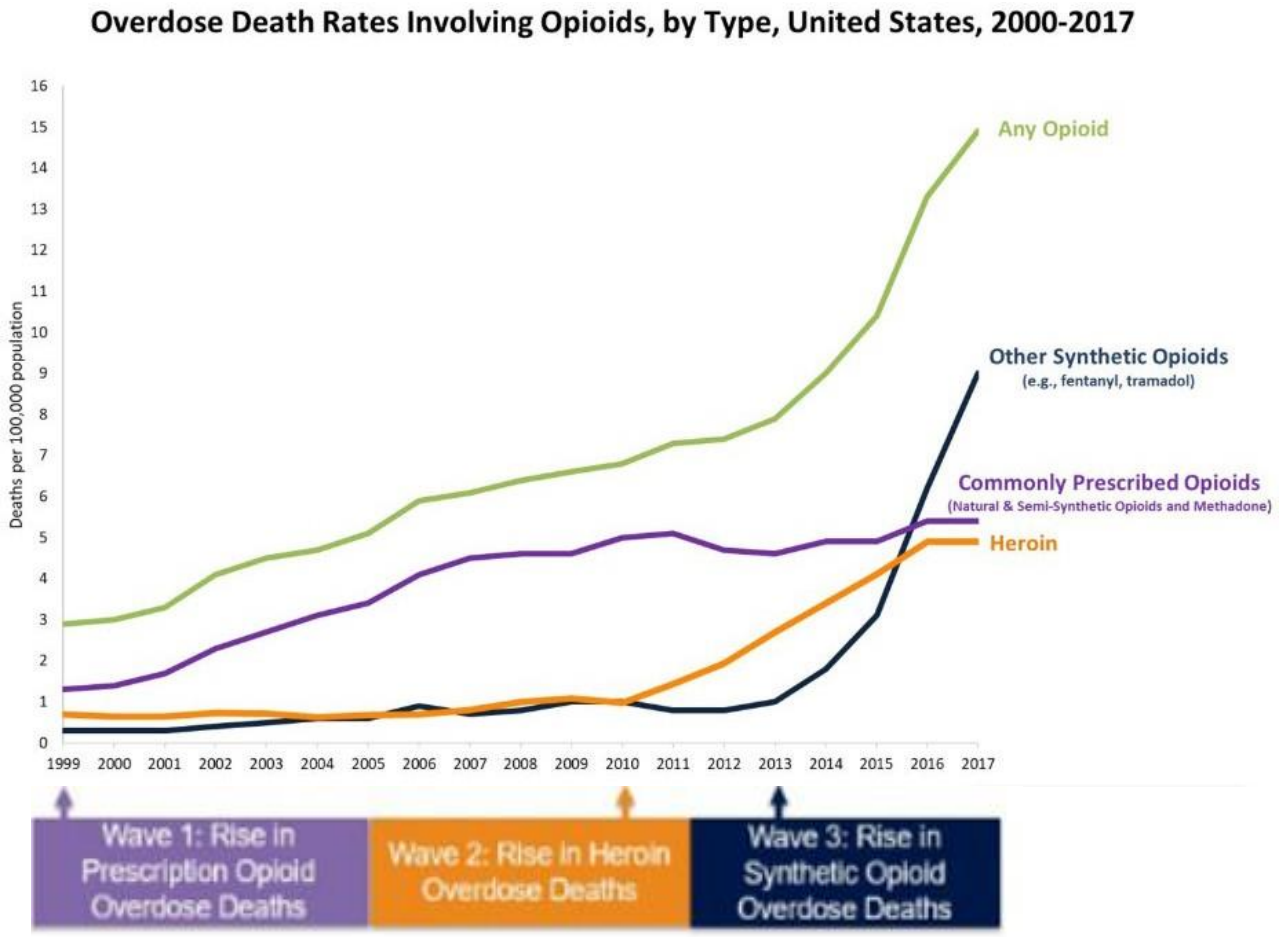
Table 1. Characteristics of opioid-related deaths in Ontario (January 1,2003 to December 31, 2020).

	Male (N = 8,429)	Female (N = 3,204)
Age group (N, %)		
15–24 years	721 (8.6)	265 (8.3)
25–34 years	2,237 (26.5)	692 (21.6)
35–44 years	2,245 (26.6)	777 (24.3)
45–54 years	2,030 (24.1)	913 (28.5)
55–64 years	1,073 (12.7)	493 (15.4)
65–69 years	123 (1.5)	64 (2.0)
Two-year periods (N, %)		
2003–2004	286 (3.4)	104 (3.2)
2005–2006	388 (4.6)	157 (4.9)
2007–2008	438 (5.2)	190 (5.9)
2009–2010	534 (6.3)	241 (7.5)
2011–2012	596 (7.1)	277 (8.6)
2013–2014	725 (8.6)	304 (9.5)
2015–2016	920 (10.9)	395 (12.3)
2017–2018	1,796 (21.3)	627 (19.6)
2019–2020	2,746 (32.6)	909 (28.4)
Quarter (N, %)		
January–March	1,902 (22.6)	725 (22.6)
April–June	2,203 (26.1)	794 (24.8)
July–September	2,111 (25.0)	792 (24.7)
October–December	2,213 (26.3)	893 (27.9)

https://doi.org/10.1371/journal.pone.0265509.t001

Paul LA, Li Y, Leece P, Gomes T, Bayoumi AM, et al. (2022) Identifying the changing age distribution of opioid-related mortality with high-frequency data. PLOS ONE 17(4): e0265509. https://doi.org/10.1371/journal.pone.0265509
https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0265509

Triple Wave: Opioid Mortality Rates (per 100,000)) in the US,1999-2017

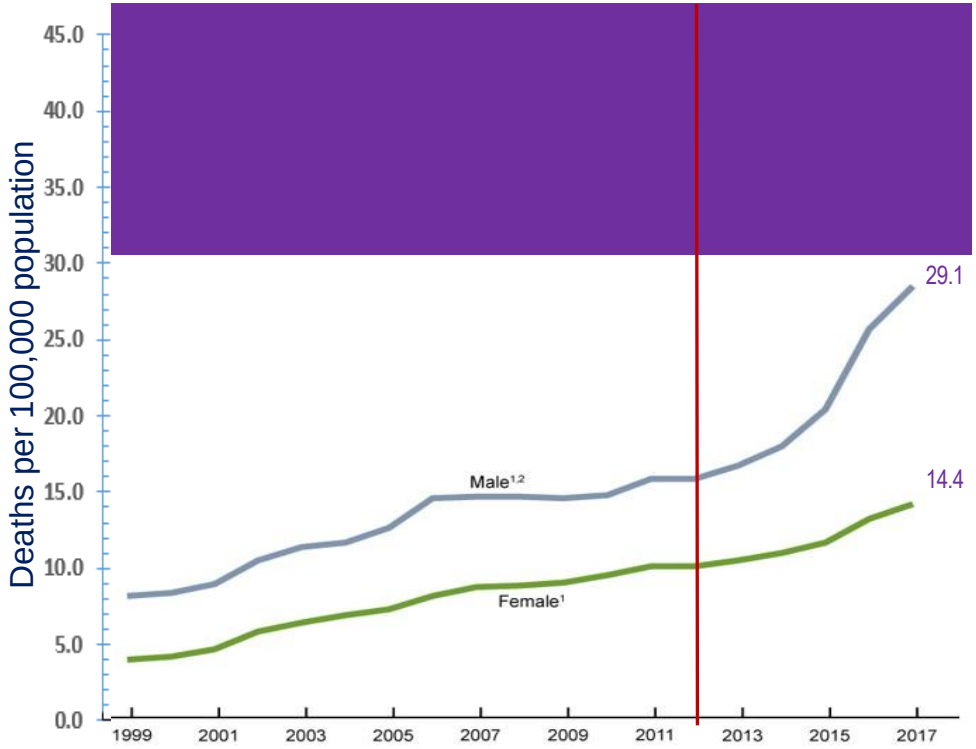


Source: CDC/CHS Department of Health and Human Services. (2018). *National Vital Statistics System- Mortality.* Retrieved from https://wonder.cdc.gov/

PCSS Providers Clinical Support System

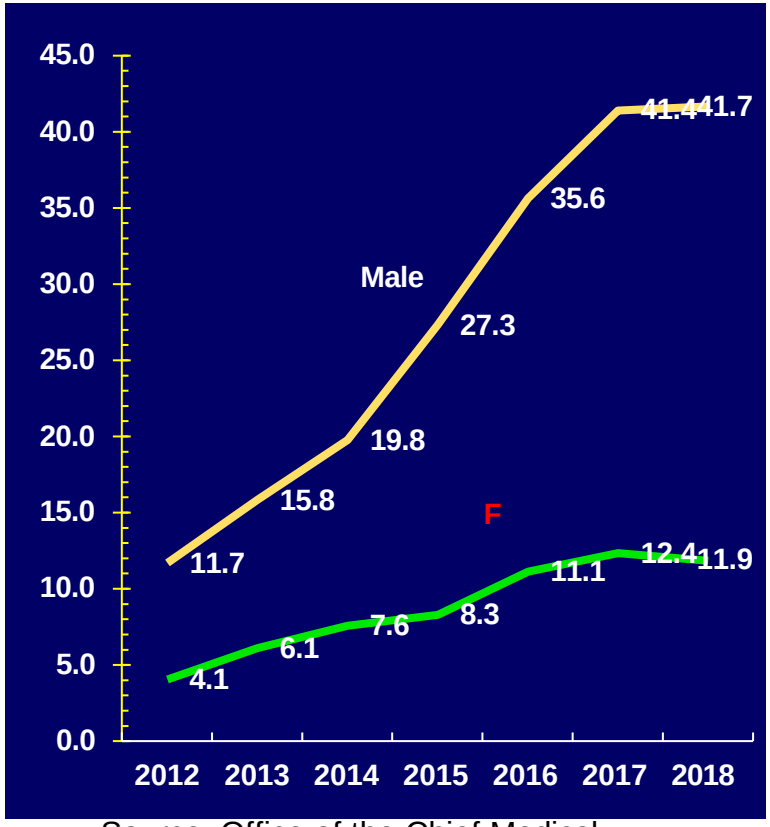
Overdose Mortality by Gender: US and CT

Overdose Mortality in US, 1999- 2017



Source: NCHS, National Vital Statistics System, 2012

Opioid Overdose Mortality in CT, 2012-2018

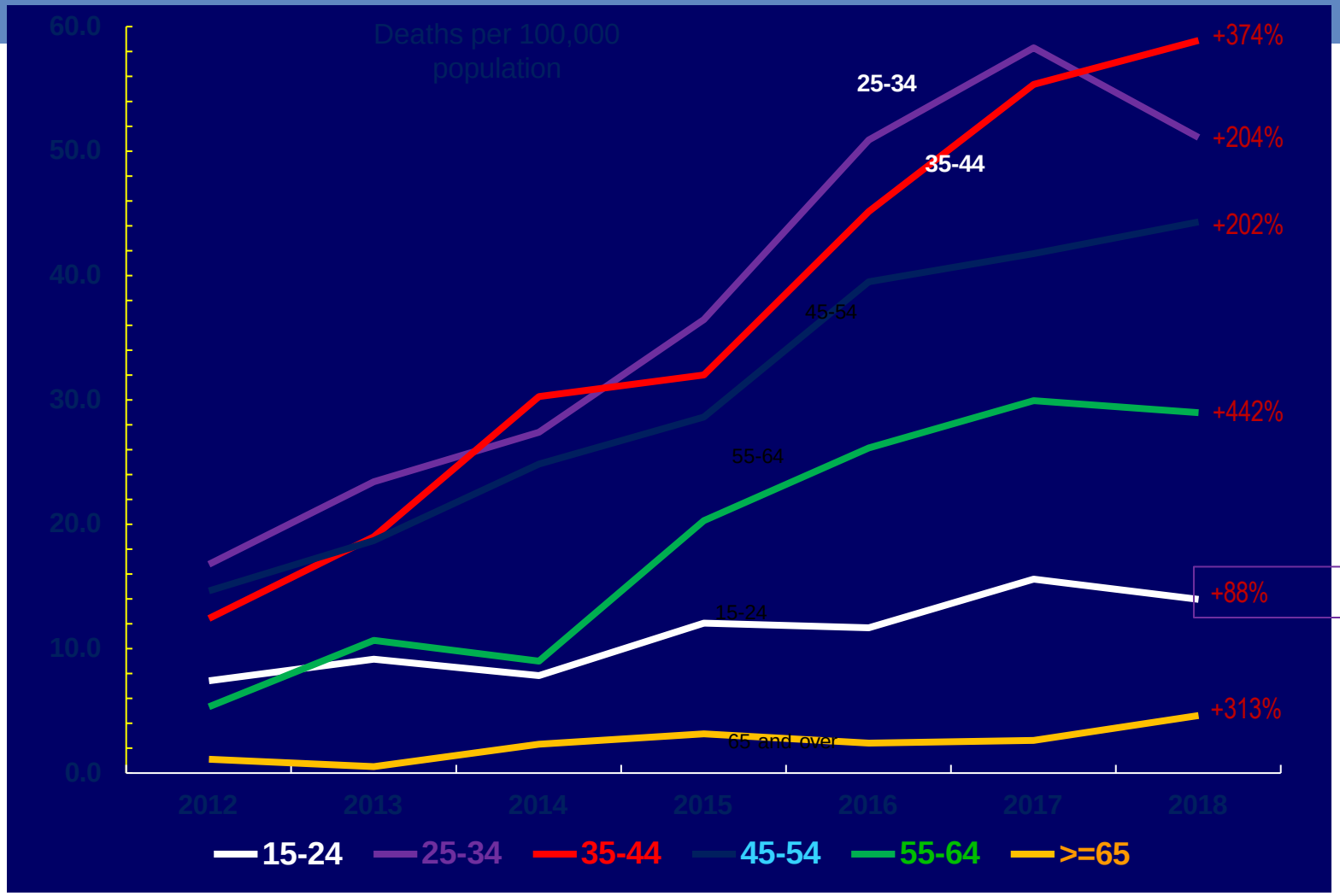


Source: Office of the Chief Medical

(Mortality 68% US Vs. 93% in CT, involved opioids) Examiner

Providers Clinical Support System

Opioid Overdose Mortality Rate by Age Group: CT, 2012-2018



Source: Office of the Chief Medical Examiner

Connecticut Accidental Drug Intoxication Deaths
Office of the Chief Medical Examiner

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Accidental Intoxication Deaths*	357	495	568	729	917	1038	1017	1200	1374	1523
Opioids										
-Opioid in any death	298	419	513	663	861	961	948	1127	1273	1408
-% intoxication deaths with an opioid	83%	85%	90%	91%	94%	93%	93%	94%	93%	93%
-Fentanyl in any death	14	37	75	189	483	677	760	979	1159	1311
-% intoxication deaths with fentanyl	4%	8%	13%	26%	53%	65%	75%	82%	84%	86%
-Fentanyl + Cocaine	2	16	14	42	143	220	270	393	447	561
-Fentanyl + Heroin	1	9	37	110	279	333	303	339	243	153
-Fentanyl/Opioid Analogues**				13	70	142	254	146	58	13
-Heroin, Morphine, and/or Codeine	195	286	349	446	541	498	407	400	274	170
-Heroin in any death	174	258	327	417	508	474	391	387	262	166
-Heroin + Fentanyl	1	9	37	110	279	333	303	339	243	153
-Heroin + Cocaine	50	69	73	107	153	169	134	143	100	58
-Morphine/Opioid/Codeine NOS	21	28	22	29	33	24	16	13	12	4
-Methadone in any death	33	48	51	71	84	99	88	92	120	128
-Oxycodone in any death	71	75	107	95	110	95	62	92	95	83
-Hydrocodone in any death	15	19	15	20	20	15	14	14	13	10
-Hydromorphone in any death	1	0	12	17	22	16	9	14	12	5
-Any Opioid + Benzodiazepine	41	60	140	221	232	313	249	269	286	212
-Buprenorphine			5	13	25	19	24	35	51	33
-Xylazine (veterinary tranquilizer)							0	71	140	301
Stimulants										
-Cocaine in any death	105	147	126	177	274	347	345	463	529	656
-Amphetamine/Methamphetamine	7	5	11	20	19	37	56	70	95	86
-MDMA	0	0	2	1	1	3	4	4	3	1

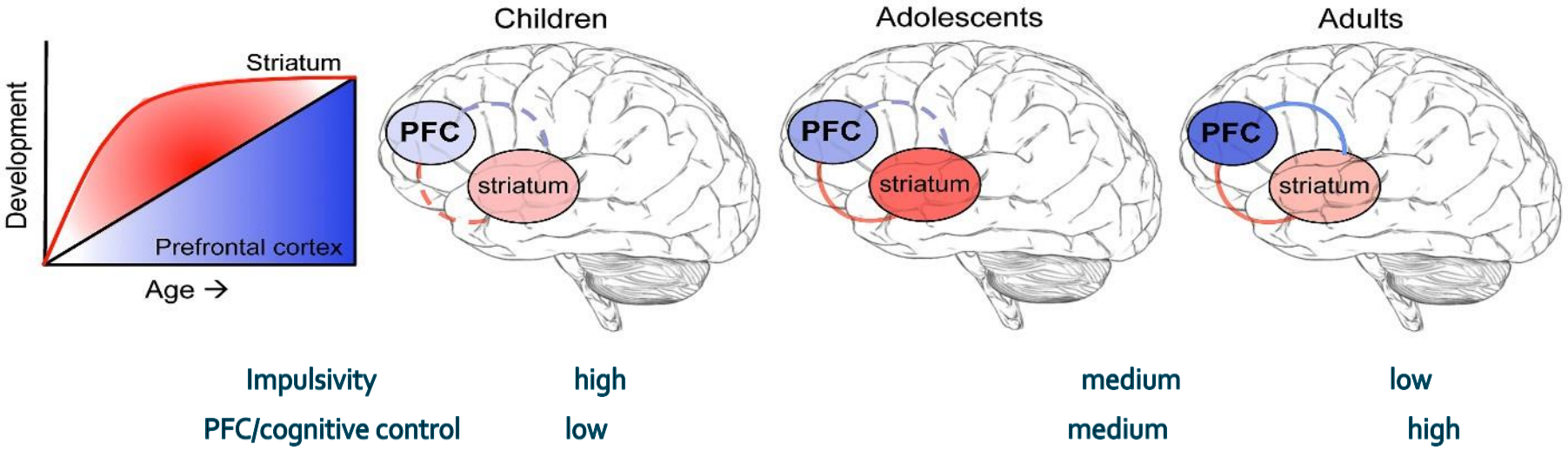
*Some deaths had combinations of drugs; pure ethanol intoxications are not included.
** These included fentanyl analogues such as Acetyl Fentanyl, Para-Fluorofentanyl, Carfentanil, and Butyryl Fentanyl.
NOS, not otherwise specified
Updated 3/26/22

2019 & 2020

Connecticut Drug Intoxication Deaths

		2019	2020
All	All Ages	1200	1374
	25.11 and under	90 *(7.5%)*	104 *(7.6%)*
Age Group			
	10 -14.11	0 *(0%)*	2 *(2%)*
	15 - 19.11	6 *(7%)*	12 *(11.5%)*
	20-25.11	84 *(93%)*	90 *(86.5%)*

Vulnerability to SUD and Psychiatric Disorders



- Environment and activities during teenage years guide selective synapse elimination ("pruning") during critical period of adolescent development

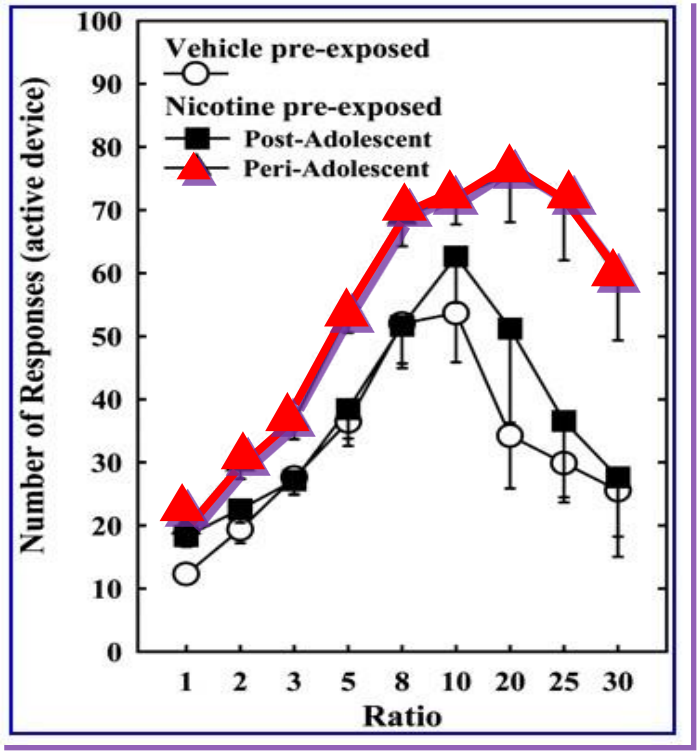
- "what teens do during their adolescent years -- whether it's playing sports or playing video games -- can affect how their brains develop" *J Giedd*

PCSS Providers Clinical Support System

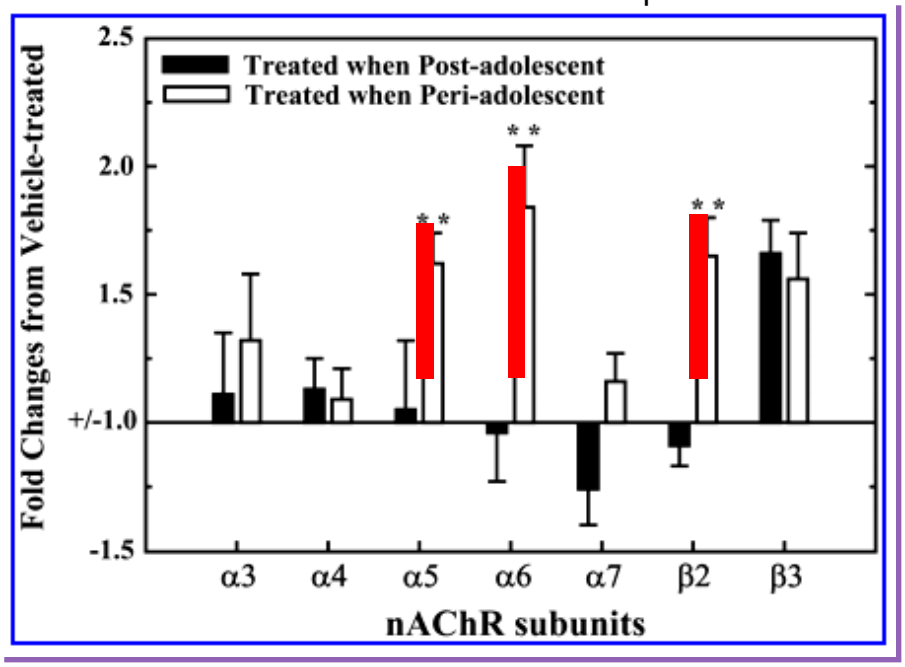
The Adolescent Brain Responds to Drugs Differently Than the Adult Brain

Treatment of Adolescent rats (but not young adults) with Nicotine leads to:

Increases in Nicotine Self Administration



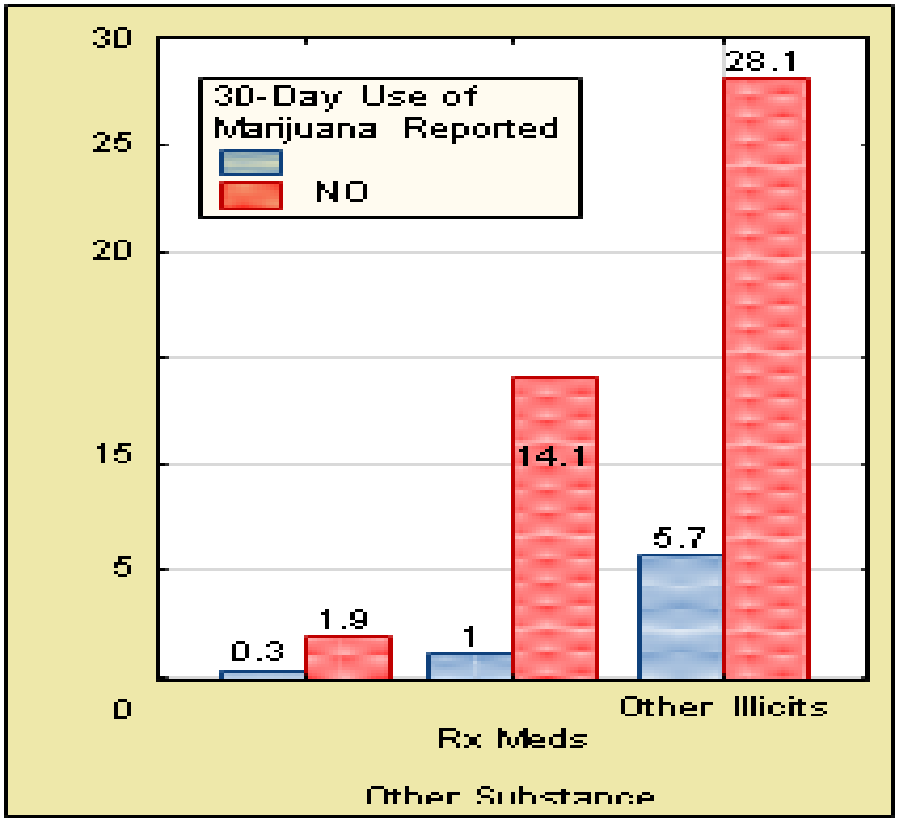
Increases in Nicotine Receptors



Source: Adriana et al., J Neurosci, 23(11), pp. 4712-4716, 2003

Teen Cannabis Users Report X14 use of Pain Meds; X4 heroin; X5 other drugs

Figure 3.



Swindell AC 2016

Increased Risk for Opioids Use

- Earlier age of initiation, psychopathology and other substance use are associated with time to use disorder diagnosis in those using opioids nonmedically
- This is consistent with findings in those who use alcohol or cannabis in addition to lower educational achievement and Socio Economical Status (SES)
- Having AUD predicted more rapid Opioid Use Disorder

(Schepis & Hakes, Substance Abuse, 2017)

PCSS Providers Clinical Support System

Cannabis Use and Risk for Opioid use

- Among adults with pain cannabis use increased incident nonmedical prescription opioid use
- Cannabis use increased incident prescription opioid use disorder
- Cannabis use also appears to increase the risk of developing nonmedical prescription opioid use and opioid use disorder in adults without pain disorder.

Olfson M (Am J Psychiatry, 2017)

Motivational Aspects of Ongoing Drug Use

- Allostatic Hypothesis: Emphasizes the secondary psycho-pathology that emerge after prolonged substance use, including the compensatory use of other drugs.
- The progression from occasional user to chronic user is a shift from SU as a positively reinforced reward-seeking behavior to a negatively reinforced compulsive behavior.
- The model suggests that negative mood states related to SU cycles evolve into chronic conditions (i.e., Internalizing Disorders): DD.
- Progression to non cannabis SUD is anticipated/expanded effort for relief from reward deficiency & neg. mood states.

(Koob J et al. 2014)
Olfson M. et al. (Cannabis use and risk for prescription opioid use disorder- Am J Psychiatry, 2017); Kaminer Y. (editorial in Substance Abuse J. 2017)

Office of the Chief Medical Examiner

- Independent state agency responsible by a special law (statute) to investigate all sudden, unexpected, or violent deaths in the state
- The Politics of Death Certificates: Coroner (administrative-appointee) Vs. Medical Examiner

Reportable Deaths by Statute

- Accidents, Suicides, Homicides.
- Poisoning, Drug use, Addiction.
- Disease with potential public health threat.
- Deaths resulting from employment.
- Sudden and unexpected deaths not caused by a readily recognized disease.
- Death on arrival or within 24 hours of hospital admission.
- Death under anesthesia, in operating or recovery room, following transfusions, or during diagnostic procedures.

If ANY injury (including drug intoxication), caused OR contributed to the death, only a Medical Examiner can certify that death

How to Diagnose a Death Due to an Intoxication?

1. Autopsy: fails to disclose a disease or injury whose severity is inconsistent with continued life.
2. Toxicology: results are in the range typically encountered in such deaths.
3. History and circumstances: consistent with a fatal intoxication.

Death Certification

- Drug concentrations, per se, usually are not determinative of cause of death.
- Toxicologic data are no substitute for an entire case study and exercise of medical judgment in the evaluation of deaths.
- Particularly in instances of chronically used (methadone) and use of (heroin) substances, tolerance and other variables produce a wide range of drug concentrations.

Am J. Drug Alc Abuse 22(2): 135-146, 1996

Strain on US Medicolegal Death Investigation Systems

- Currently ~500 Board-Certified Forensic Pathologists (FPs) practicing in the US
- *Prior* to the opioid epidemic, the US needed 1,000-1,100 to provide coverage for the entire country
- Over 70,000 drug overdose deaths occurred in the United States in 2017
- Investigating, autopsying, and certifying these deaths is the equivalent of the workload of over 280 full time FPs

2018 CT Office of ME Deaths

Accidental Drug Intoxications	
Total	1017
Suicides	420
Homicides	97
Motor Vehicle Collisions	325
Total	842

Table 1

Characteristics of Drug Intoxication Deaths (Accidental, Suicide & Undetermined) of individuals 10-25.11 years of age in Connecticut, 2016-2018.

Note: *Opioid includes (Oxycodone, Oxymorphone, Hydrocodone, Methadone, Tramadol, Hydromorphone, Morphine, Opiate-not otherwise specified); **Kaminer et al. 2020**

	2016 (N=99)	2017 (N=104)	2018 (N=90)
Age, yrs			
10-14.11	0 (0%)	0 (0%)	0 (0%)
15.00-19.11	13 (13%)	7 (7%)	8 (9%)
20-25.11	86 (87%)	97 (93%)	82 (91%)
Sex			
Male	70 (71%)	68 (65%)	65 (72%)
Female	29 (29%)	36 (35%)	25 (28%)
Race/Ethnicity			
White	77 (78%)	88 (85%)	67 (74%)
Black	3 (3%)	9 (8%)	15 (17%)
Hispanic	12 (12%)	5 (5%)	7 (8%)
Other	7 (7%)	2 (2%)	1 (1%)
Manner of Death			
Accident	89 (90%)	101 (97%)	87 (97%)
Suicide	5 (5%)	3 (3%)	3 (3%)
Undetermined	5 (5%)	0 (0%)	0 (0%)
Drug-Involved			
Opioid*	19 (19%)	13 (12%)	9 (10%)
Heroin	61 (62%)	47 (45%)	30 (33%)
Fentanyl	50 (51%)	82 (79%)	78 (87%)
Cocaine	31 (31%)	23 (22%)	24 (27%)
Benzodiazepine	28 (28%)	34 (33%)	23 (26%)
Ethanol	22 (22%)	22 (21%)	14 (16%)
Amphetamine	2 (2%)	8 (8%)	5 (5%)
Marijuana (THC)	46 (46%)	49 (47%)	46 (52%)
Other	13 (13%)	11 (10%)	9 (10%)
Polysubstance Use			
Opioid Only combination (Heroin, Fentanyl and/or Opioid)	10 (10%)	12 (11%)	10 (11%)
Opioid combination (with or without other drugs)	58 (59%)	42 (40%)	44 (49%)
Opioid & Benzodiazepine	27 (27%)	30 (29%)	21 (23%)
Opioid & Cocaine	31 (31%)	23 (22%)	21 (23%)
Opioid & THC	42 (42%)	46 (44%)	43 (48%)
Opioid & Alcohol	19 (19%)	18 (17%)	14 (16%)
Other non-opioid combinations	5 (5%)	4 (4%)	4 (4%)

Table 2: Fentanyl and its Derivatives

	Years of age	2016	2017	2018
		Fentanyl	Fentanyl	Fentanyl
Female	15-19	4 (6)	1 (2)	3 (3)
	% intoxication death w/Fentanyl	67%	50%	100%
	20-25	9 (23)	26 (34)	20 (22)
	% intoxication death w/Fentanyl	39%	76%	91%
	Total	13 (29)	27 (36)	23 (25)
	% intoxication death w/Fentanyl	45%	75%	92%
Male	15-19	4 (7)	2 (5)	4 (5)
	% intoxication death w/Fentanyl	57%	40%	80%
	20-25	33 (63)	53 (63)	51 (60)
	% intoxication death w/Fentanyl	52%	84%	85%
	Total	37 (70)	55 (68)	55 (65)
	% intoxication death w/Fentanyl	53%	81%	85%
Grand Total		50 (99)	82 (104)	78 (90)
		51%	79%	87%

Kaminer et al. 2020

Summary I

- The opioid crisis in Connecticut is greater than the national average.
- Consistent with national trends, opioid use in CT appears to be stabilizing or decreasing, especially with regard to prescription drug misuse.
- In CT, increasingly, urban and minority populations are being impacted by overdose mortality.
- Overdose mortality in Connecticut is now driven primarily by fentanyl.
- Polysubstance use in overdose deaths is common and increasing.

Summary II

- Intentional Fatal Drug Intoxication (FDI) has been underdiagnosed by the limitations inherent in a “standard” medical examination investigation
- There is a need for individual-level study of a multi-pronged approach to identify modifiable acute high-risk stresses and circumstances for intentional FDI.
- The addition of a Psychological Autopsy would contribute to “close the gap” in the determination of intentional FDI among youth and aid in the prevention of suicide.

Complexities and Limitations of the ME Investigation -I

- Variation in death investigation practice and reporting (e.g., basic vs. expanded toxicology tests, qualitative-screening vs. quantitative drug analysis)**;**
- Interpretation of toxicology results (e.g., characteristics of causative drug(s) metabolites, concentrations, and half-life considerations);
- Attribution to a specific drug (some drugs have the same metabolites or are metabolites of other drugs potentially resulting in misattribution of the specific drugs involved in the death);
- Variation in determination of which drug(s) to report on the death certificate (e.g., single drug or multiple drugs based on lethality or drug interactions);

Limitations II

- Psychological training is not integral to the preparation and skill set of MEs, their field personnel, or police, all of whom may contribute to the postmortem record;
- Heavy case load due to the current epidemic of opioid and other drug fatalities along with budget constraints

(Slavova et al. 2019)

Suicidal Motivation-Intentionality in Opioid OD

- A study of adult survivors of OOD regarding suicidal cognition prior to the most recent episode No perceived risk of fatal OD: 40%
- Some: 1) desire to die:45%., 2) Intention to die:20%
- Correlation of moderate magnitude (p=.58)
- Careful assessment of suicidal intentionality may improve suicide risk solutions and prevention of OD

(Connery HS et al. 2019; 2022)

Opioid OD Experience in US Youth

- A qualitative analysis of youth (ages 15-21) with OUD perspectives on OD experiences

Four broad themes emerged:

- 1) Difficulty identifying OD due to interpreting subjective symptoms and a lack of memory of the event;
- 2) Difficulty perceiving risk with understanding of OD intentionality;
- 3) Difficulty to interpret personal OD events as a catalyst for behavior change;
- 4) Experiencing a greater impact to behavior change through witnessing an OD of someone else Monico LB et al. (Addiction 2020)

Neurocognitive impairments resulting from Opioids-OD: Winstanley EL (2021)

THE END

- KAMINER@UCHC.EDU

References

- Connery HS, Weiss RD, Griffin ML et al. (2022) Suicidal motivations among opioid overdose survivors: Replication and extension. Drug Alcohol Dependence
- Copeland WE, Gaydosh L, Hill SN, et al. (2020). Association of despair with suicidality and substance misuse among young adults. JAMA Network Open.
- Hammond CJ (2020) Youth Opioids Use. In: Kaminer Y & Winters KC, Clinical Manual of Youth Addictive Disorders. American psychiatric Association Publishing Inc.
- Kaminer Y, Burke R, Gill J (2020). Determining youth fatal drug intoxication: The case of a psychological autopsy to complement the medical examiner's report. J. Child & Adolesc Subst Abuse.
- Monico LB, Ludwig A, Lertch E, et al. (2020). Opioid overdose experiences in a sample of US adolescents and young adults: a thematic analysis. Addiction
- Rhee TG, Ross JS, Rosenheck RA , et al. (2019). Accidental drug overdose deaths in CT, 2012-2018: The rise of polysubstance detection? Drug Alcohol Dependence

Q&A

Use the “Q&A” area of the attendee control panel

PCSS Mentoring Program

- PCSS Mentor Program is designed to offer general information to clinicians about evidence-based clinical practices in prescribing medications for opioid use disorder.
- PCSS Mentors are a national network of providers with expertise in **addictions, pain, evidence-based treatment including medications for opioid use disorder (MOUD)**.
- 3-tiered approach allows every mentor/mentee relationship to be unique and catered to the specific needs of the mentee.
- No cost.

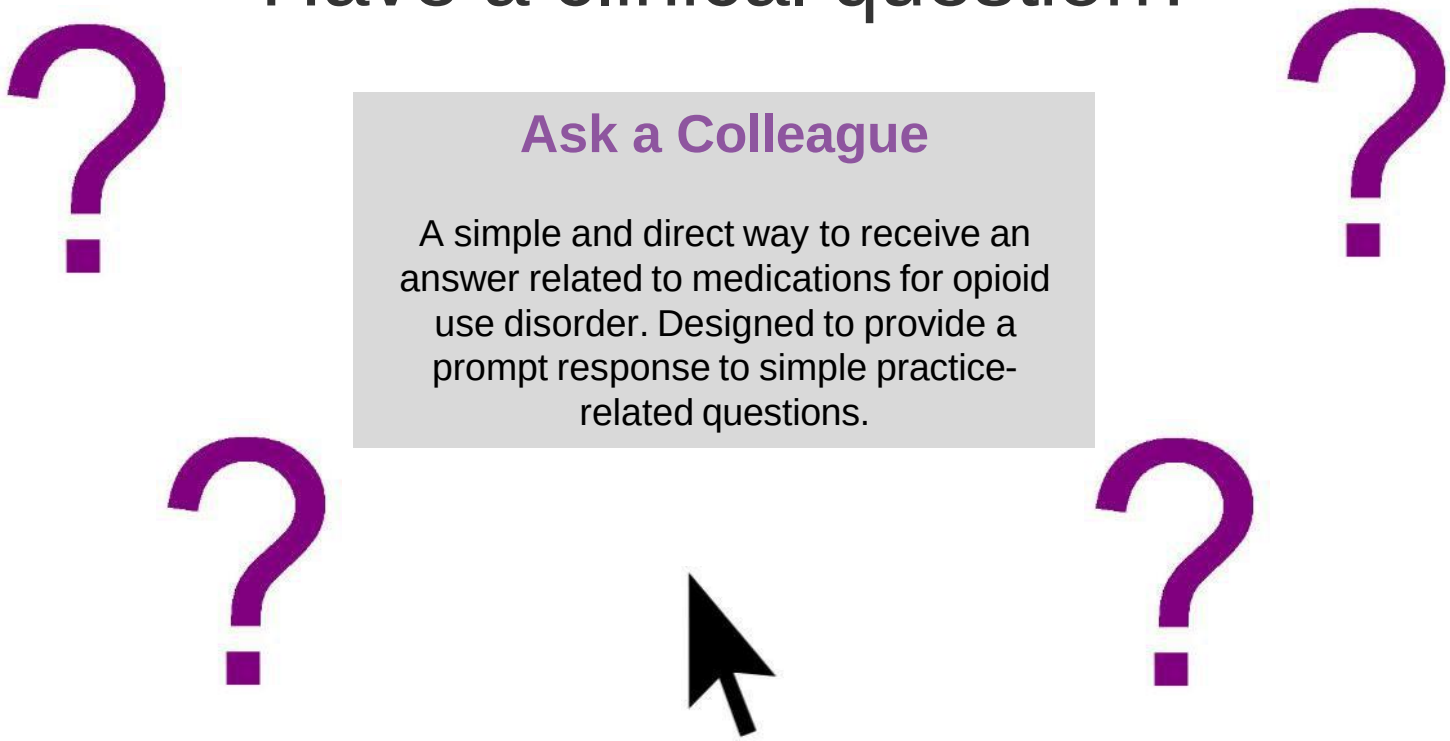
For more information visit:

https://pcssNOW.org/mentoring/

PCSS Providers Clinical Support System

PCSS Discussion Forum

Have a clinical question?



Ask a Colleague

A simple and direct way to receive an answer related to medications for opioid use disorder. Designed to provide a prompt response to simple practice-related questions.

http://pcss.invisionzone.com/register

PCSS Providers Clinical Support System

PCSS Providers Clinical Support System

PCSS is a collaborative effort led by the American Academy of Addiction Psychiatry (AAAP) in partnership with:

Addiction Technology Transfer Center	American Society of Addiction Medicine
American Academy of Family Physicians	American Society for Pain Management Nursing
American Academy of Pain Medicine	Association for Multidisciplinary Education and Research in Substance use and Addiction
American Academy of Pediatrics	Council on Social Work Education
American Pharmacists Association	International Nurses Society on Addictions
American College of Emergency Physicians	National Association for Community Health Centers
American Dental Association	National Association of Social Workers
American Medical Association	National Council for Mental Wellbeing
American Osteopathic Academy of Addiction Medicine	The National Judicial College
American Psychiatric Association	Physician Assistant Education Association
American Psychiatric Nurses Association	Society for Academic Emergency Medicine

PCSS Providers Clinical Support System

@PCSSProjects

www.facebook.com/pcssprojects/

www.pcssNOW.org

pcss@aaap.org

Funding for this initiative was made possible (in part) by grant no. 6H79TI081968 from SAMHSA. The views expressed in written conference materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services; nor does mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government.