

Trends and Characteristics of Unintentional Drug Overdose Deaths in Connecticut

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Connecticut Department of Public Health
Keeping Connecticut Healthy





Topics Covered

- Fatal drug overdoses in Connecticut over the years
- Impact of COVID-19
- Substances involved
- Demographic data
- Circumstances of overdose deaths
- CDC-funded OD2A grant and prevention strategies
- Surveillance strategies
- Data driven prevention efforts
- Data dissemination to local authorities



CT DPH Collaborates with multiple agencies/Prevention Committees

Office of Chief Medical Examiner (OCME)
Local Health Departments/Health Districts (LHDs)
Department of Consumer Protection (DCP)
Department of Mental Health and Addiction Services (DMHAS)
Department of Correction
Emergency Medical Services (EMS)
Opioid task force and prevention committees
Harm reduction (Syringe exchange program)
Planned Parenthood
Alcohol and Drug Policy Council (ADPC) Prevention Subcommittee
New England High Intensity Drug Trafficking Area (NE HIDTA)



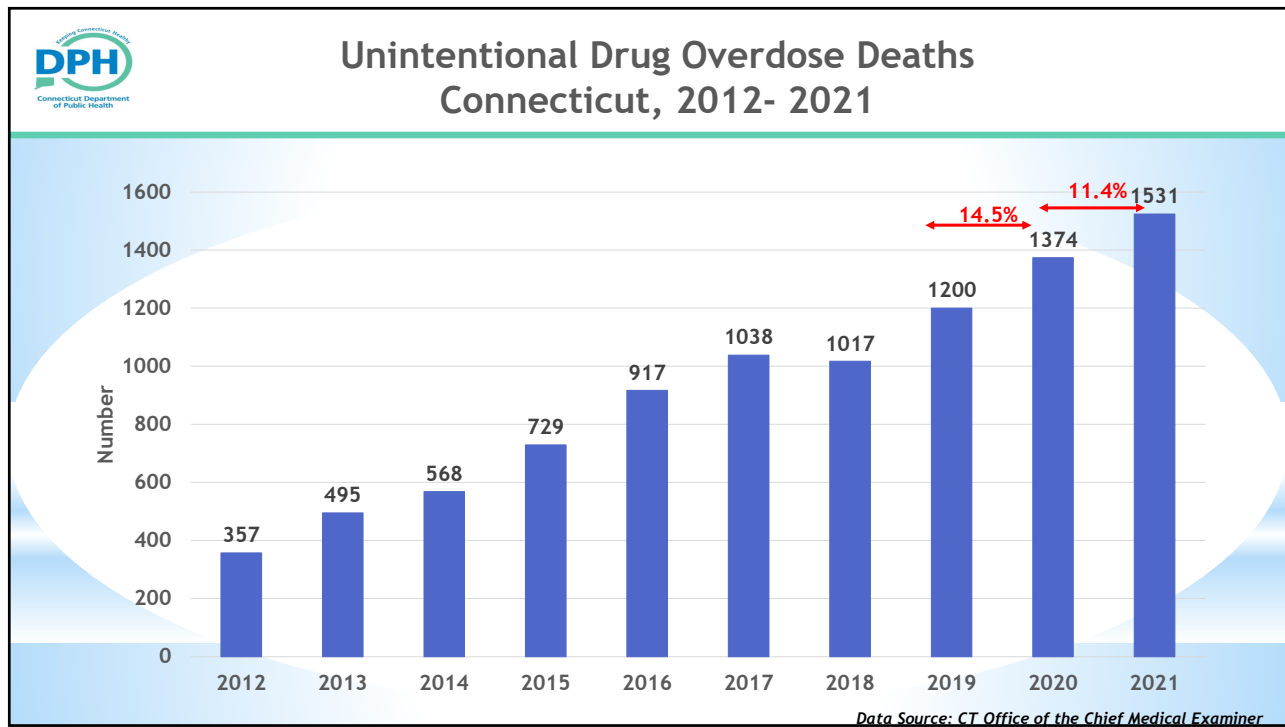
Fatal Drug Overdose Data Sources

- Office of Chief Medical Examiner (OCME)
<https://portal.ct.gov/OCME/Statistics>
- State Unintentional Drug Overdose Reporting System (SUDORS)



Unintentional Drug Overdose Deaths, Connecticut

- Drug overdose deaths in Connecticut resulted in a total of **9,226** deaths from 2012 to 2021. There was a gradual, but significant increase (330%) in the number of deaths from 2012 (N=357) to 2021 (N=1,531).
- For 2022, there are 664 confirmed deaths as of the 1st week of July.





Unintentional Drug Overdose Deaths Toxicology Tables Connecticut, 2012-2021

Table 1 : Number and Percentage of Different Drugs Involved in Unintentional Drug Overdose Deaths, Connecticut, 2012-2021

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Change in value 2019-2021	% Diff. 2019-2021	Change in value 2020-2021	% Diff. 2020-2021
Accidental Intoxication Deaths* TOTAL	357	495	568	729	917	1038	1017	1200	1374	1524	324	27.0	150	10.9
OPIOIDS														
-Any opioid in any death**	298	419	513	663	861	961	948	1127	1273	1413	286	25.4	140	11.0
% Intoxication deaths with an opioid	83%	85%	90%	91%	94%	93%	93%	94%	93%	93%	333	34.0	153	13.2
-Fentanyl in any death	14	37	75	189	483	677	760	979	1159	1312				
% 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	168	42.7	114	25.5
-Fentanyl + Heroin	1	9	37	110	279	333	303	339	243	153	-186	-64.9	-90	-37.0
-Fentanyl/Opioid Analogues***	ND	ND	ND	13	70	142	254	146	58	131	-15	-10.3	73	125.9
-Heroin, Morphine and/or Codeine	195	286	349	446	541	496	407	400	274	176	-224	-56.0	-98	-35.3
-Heroin in any death	174	258	327	417	508	474	391	387	262	165	-222	-57.4	-97	-37.0
% Intoxication with heroin	49%	52%	56%	57%	55%	46%	38%	32%	19%	11%				
-Heroin + Fentanyl	1	9	37	110	279	333	303	339	243	153	-186	-64.9	-90	-37.0
-Heroin + Cocaine	50	69	73	107	153	169	134	143	100	58	-85	-59.4	-42	-42.0
-Morphine/Opioid/Codeine NOS	21	28	22	29	33	24	16	13	12	11	-2	-15.4	-1	-3.3
-Methadone in any death	33	48	51	71	84	99	88	92	120	128	36	39.1	8	6.7
-Oxycodone in any Death	71	75	107	95	110	95	62	92	95	83	-9	-9.8	-12	-12.6
% Intoxication with Oxycodone	20%	15%	19%	13%	12%	9%	6%	8%	7%	5%			0	-27.5
-Hydrocodone in any death	15	19	15	20	20	15	14	14	13	10	-4	-28.6	-3	-23.1
-Hydromorphone in any death	1	0	12	17	22	16	9	14	12	5	-9	-64.3	-7	-88.3
-Any Opioid + Benzodiazepine	41	60	140	221	232	313	249	269	296	275	6	2.2	-11	-3.8
% Intoxication with opioid + benzodiazepine	11%	12%	25%	30%	25%	30%	25%	22%	21%	18%				
Buprenorphine	ND	ND	5	13	25	19	24	35	51	34	-1	-2.9	-17	-33.3
STIMULANTS														
-Cocaine in any death	105	147	126	177	274	347	345	463	529	656	193	41.7	127	24.0
% Intoxication with cocaine	29%	30%	22%	24%	30%	33%	34%	39%	39%	43%				
-Amphetamine/Methamphetamine	7	5	11	20	19	37	56	70	95	87	17	24.3	-8	-8.4
-MDMA (Ecstasy)	0	0	2	1	1	3	4	4	3	1	-3	-75.0	-2	-66.7
OTHER EMERGING DRUGS														
Xylazine (veterinary tranquilizer)****	ND	ND	ND	ND	ND	ND	ND	71	140	301	230	323.9	161	115.0
% Intoxications with Xylazine								6%	10%	20%				

Data Source: Office of the Chief Medical Examiner

* Total number of Accidental Intoxication Deaths and pure ethanol intoxications are not included.

** Any opioid included: Heroin, Fentanyl, Fentanyl analogues, Hydrocodone, Methadone, Oxycodone, and Morphine.

*** Include Acetyl Fentanyl, Fentanyl, Fentanyl, Carfentanyl, Fluorobutyl Fentanyl, Butyl Fentanyl, Methoxyacetyl Fentanyl, Para-Fluorofentanyl, and U47700.

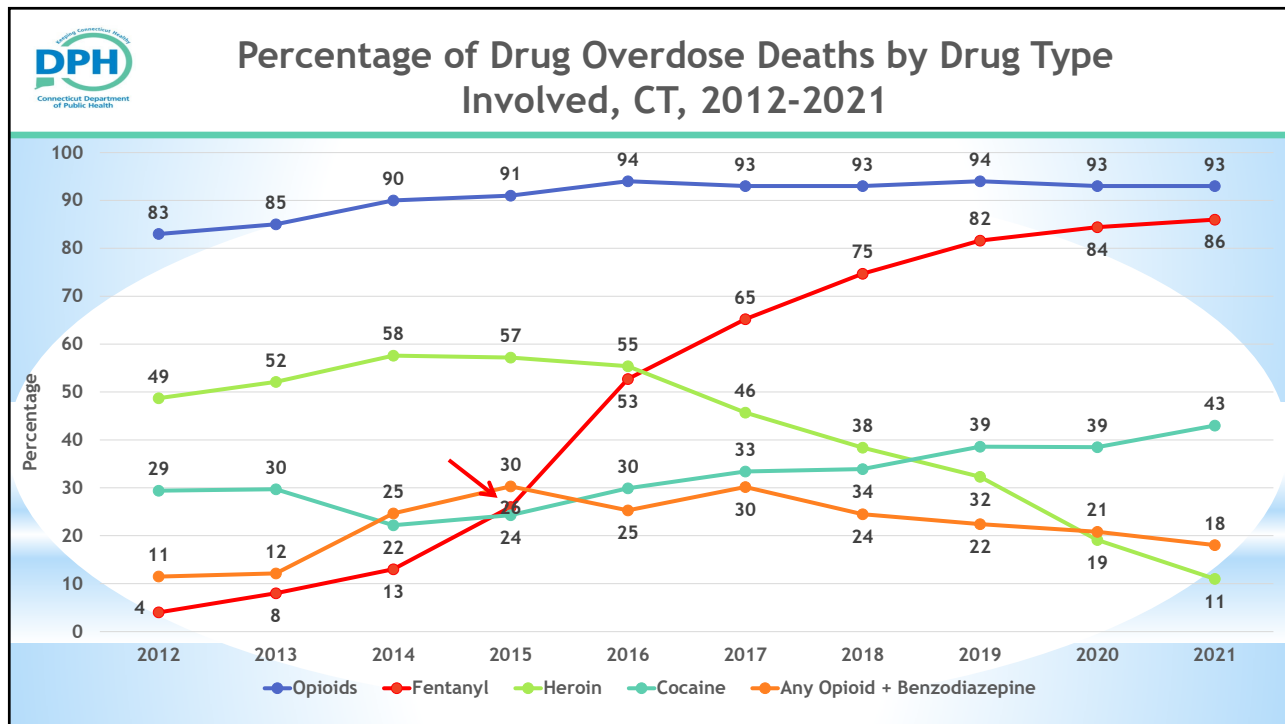
**** Xylazine, a veterinary tranquilizer, was a new substance seen since 2019.

Note: 1) % difference is calculated between the years with specific substance and % difference in red color indicates increase and in green color indicates decrease.

2) ND: Not Detected.

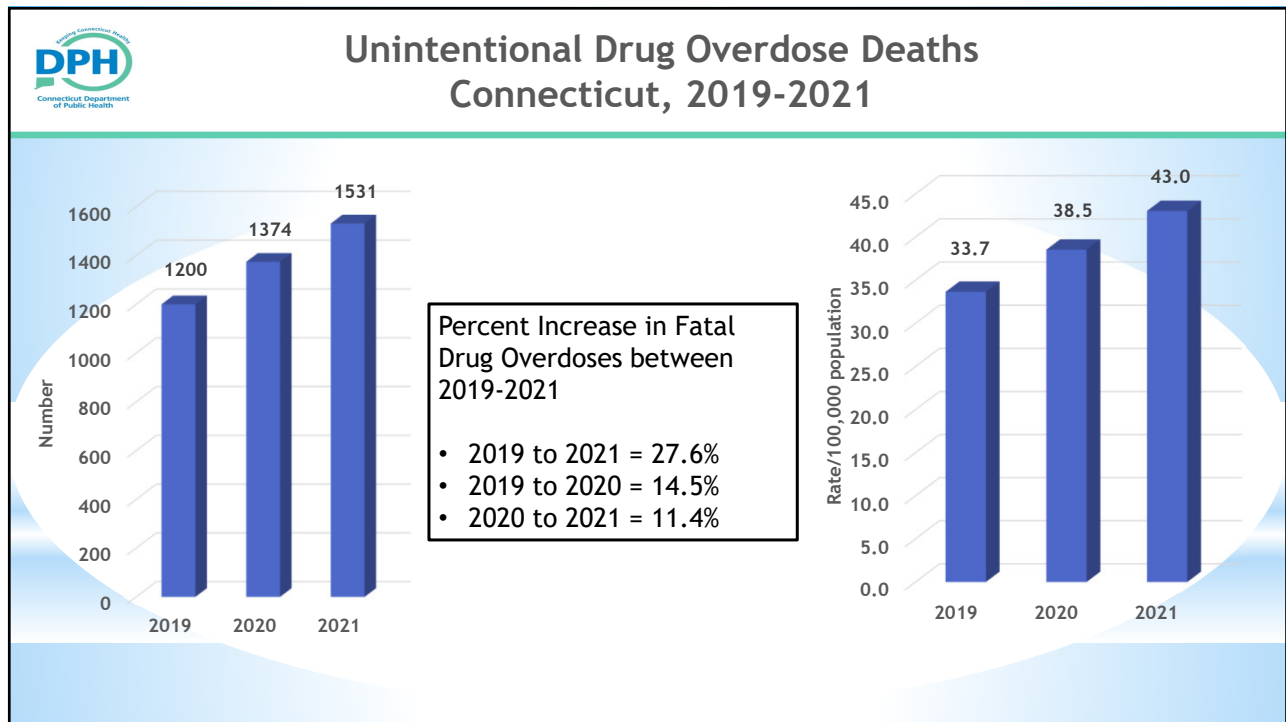
Data updated on 6/15/2022

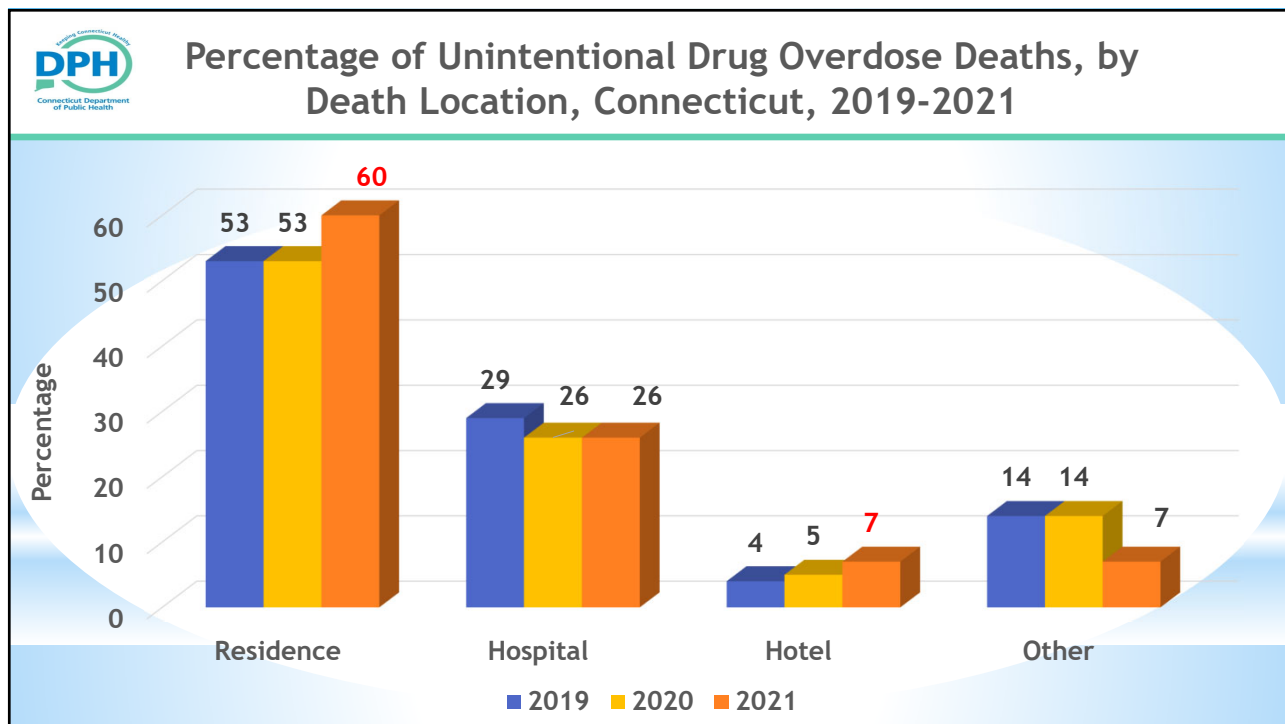
https://portal.ct.gov/-/media/DPH/Injury-Prevention/Opioid-Overdose-Data/Toxicology-Tables/Unintentional-Drug-Overdose-Deaths-Involving-Different-Drugs-Connecticut-2012-2021_updated-06152022.pdf

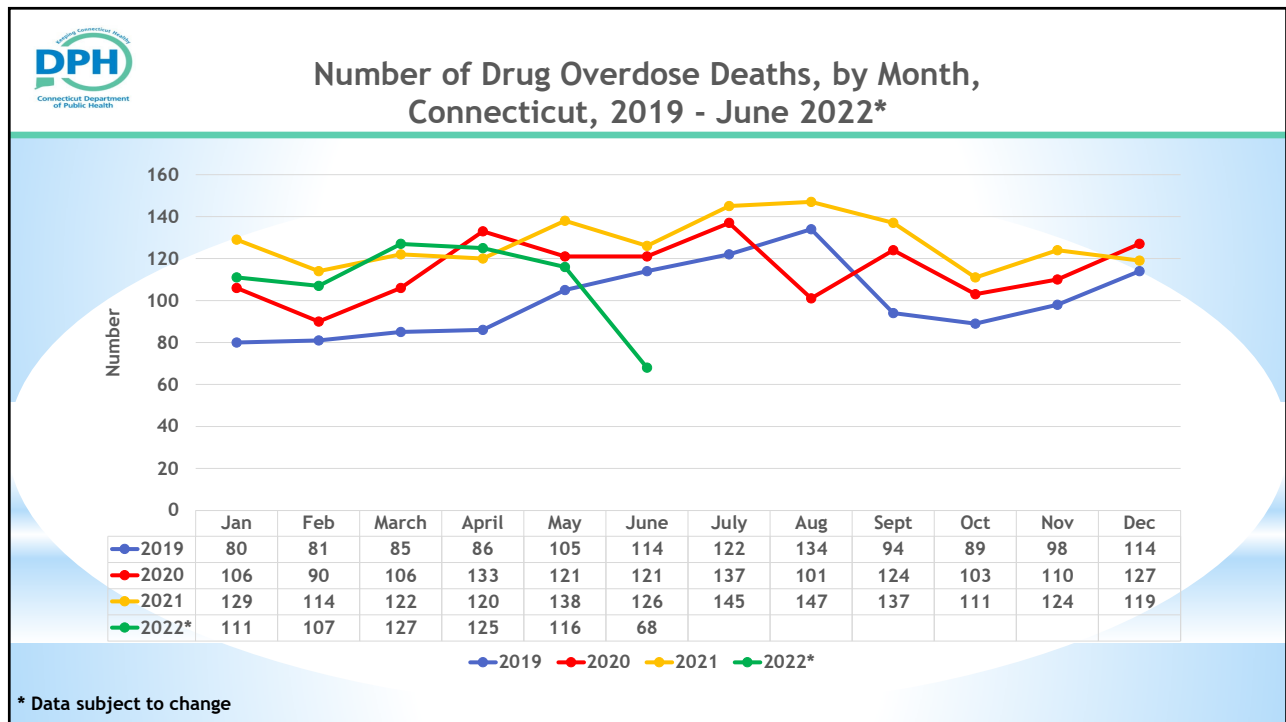


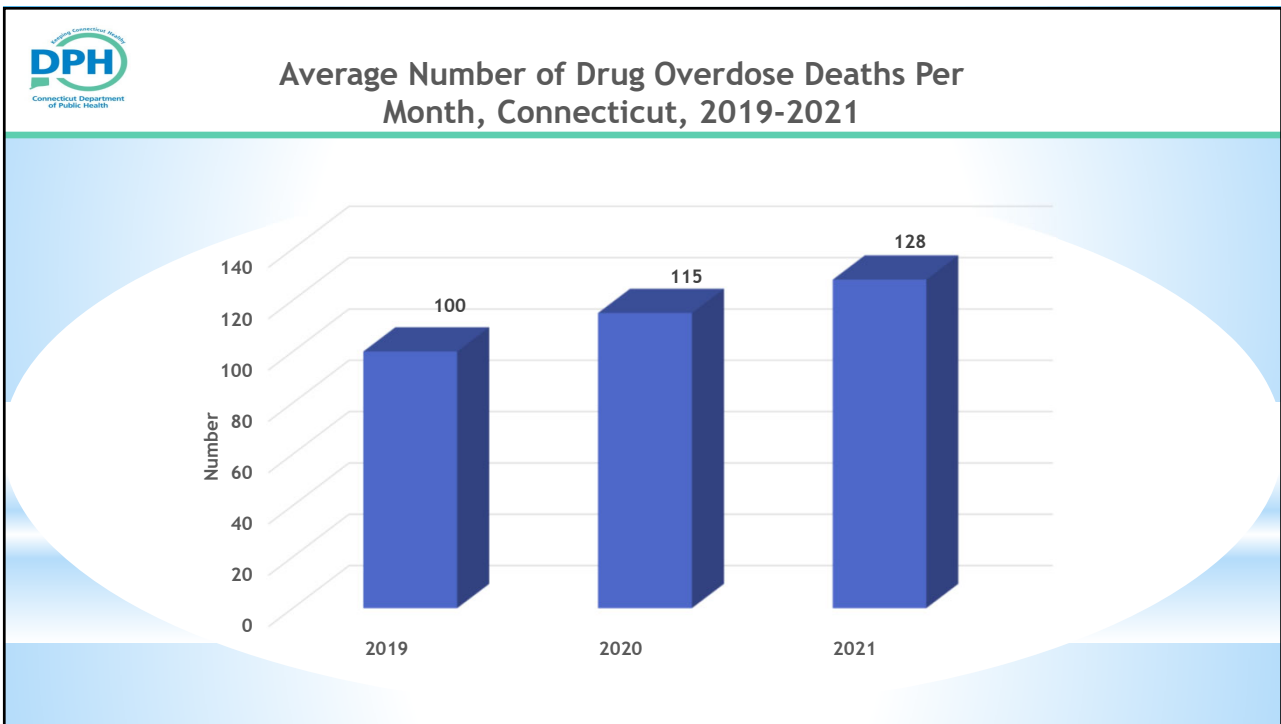


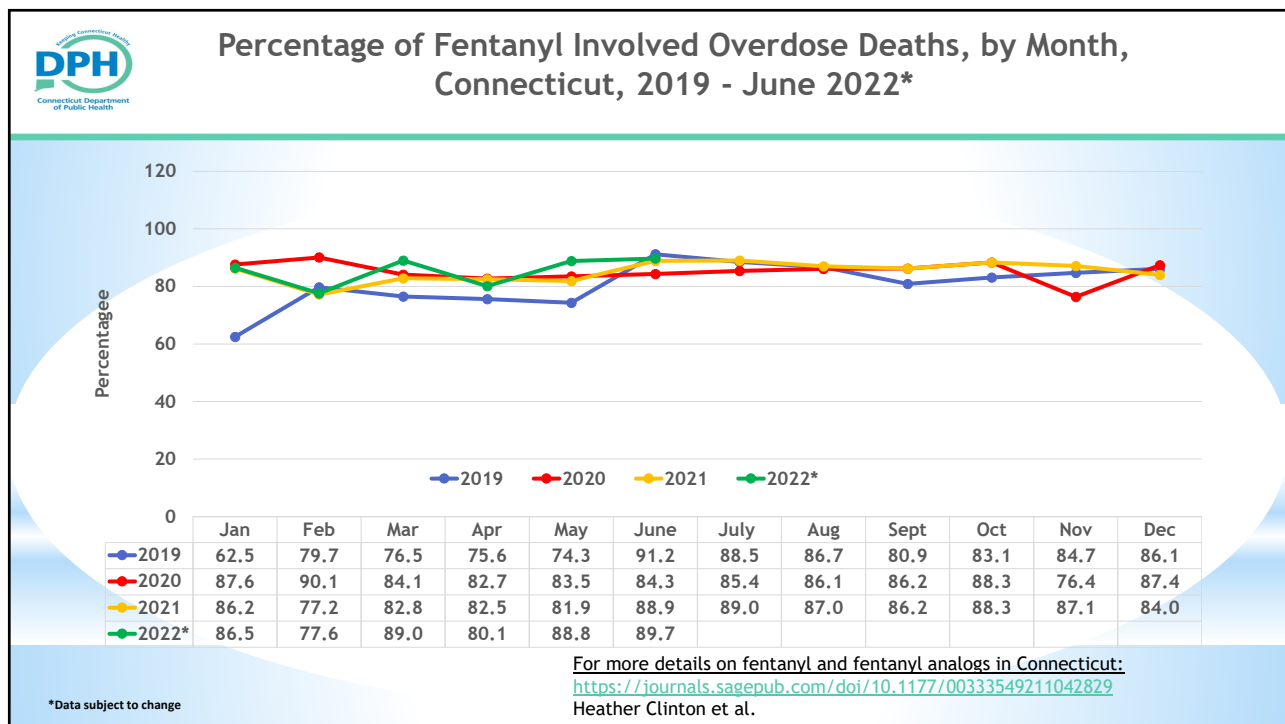
Impact of COVID-19 on Fatal Drug Overdoses 2019-2021

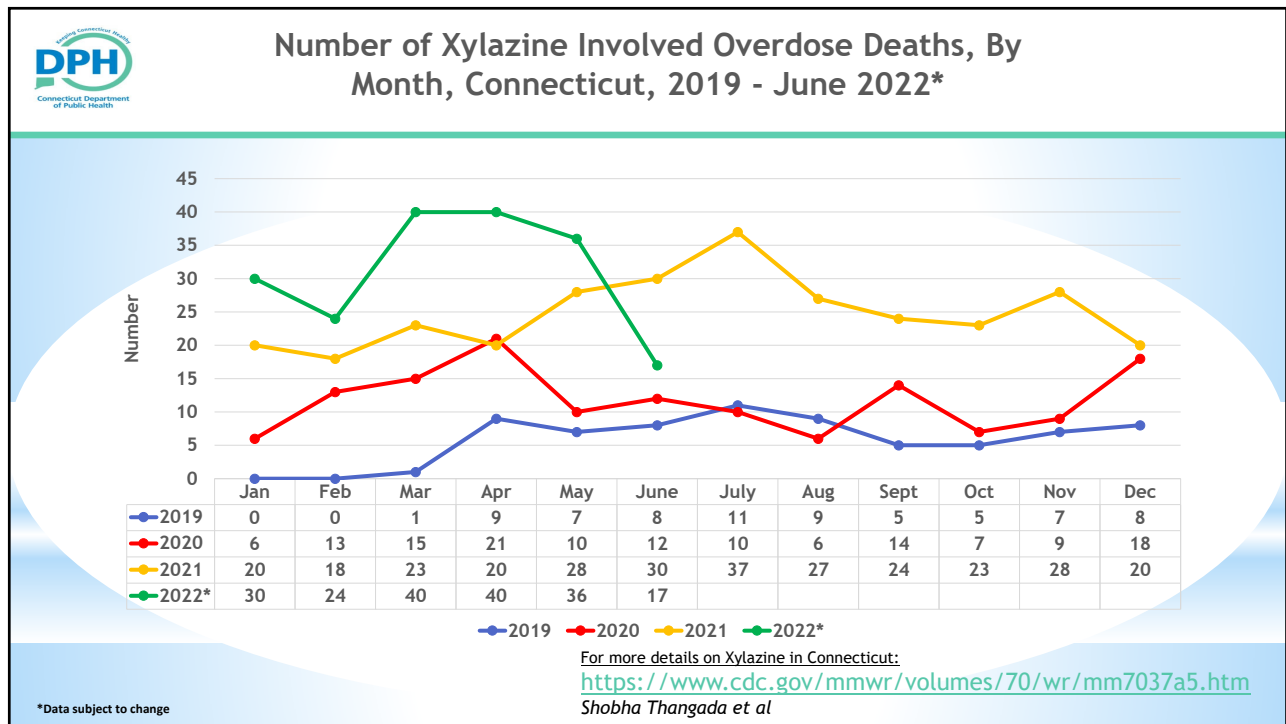


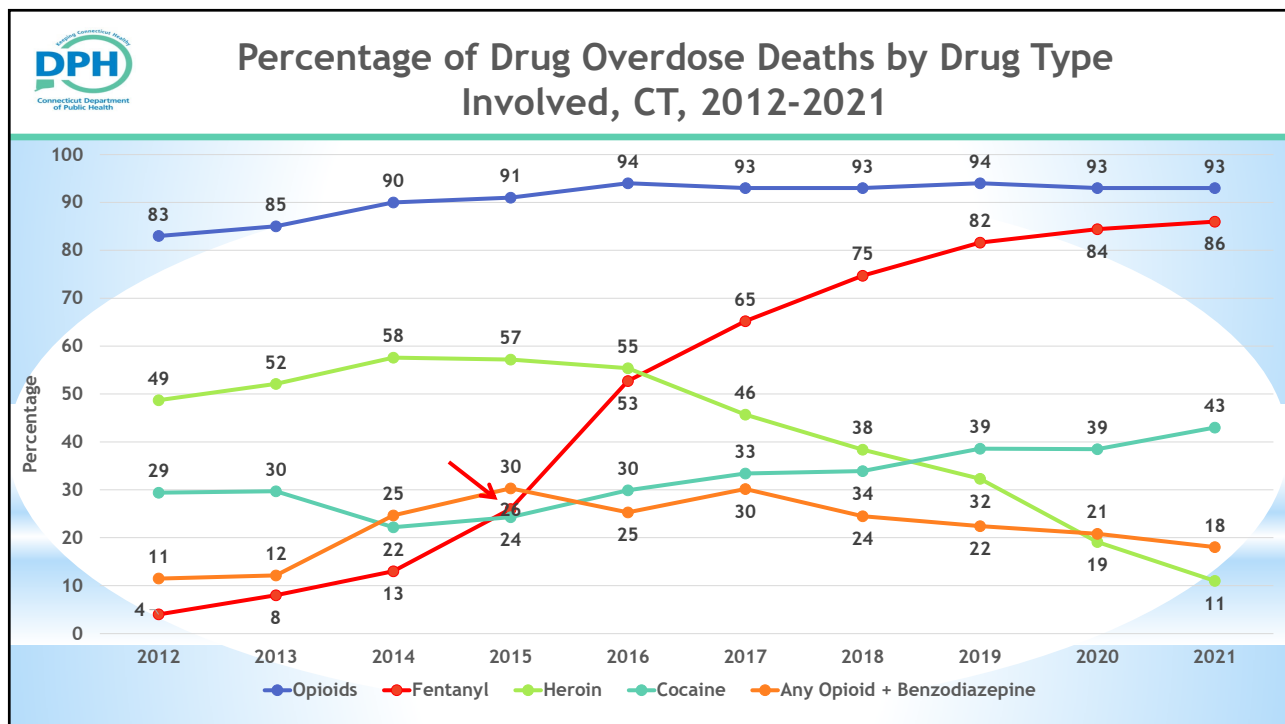








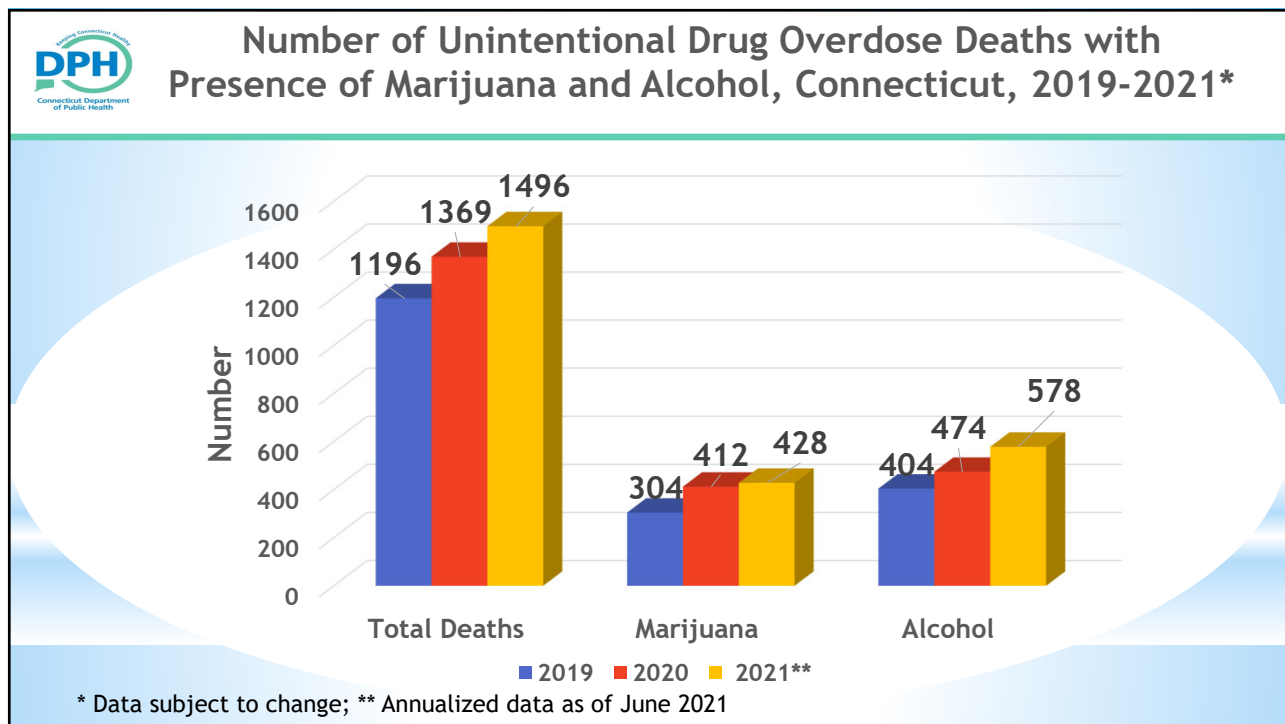


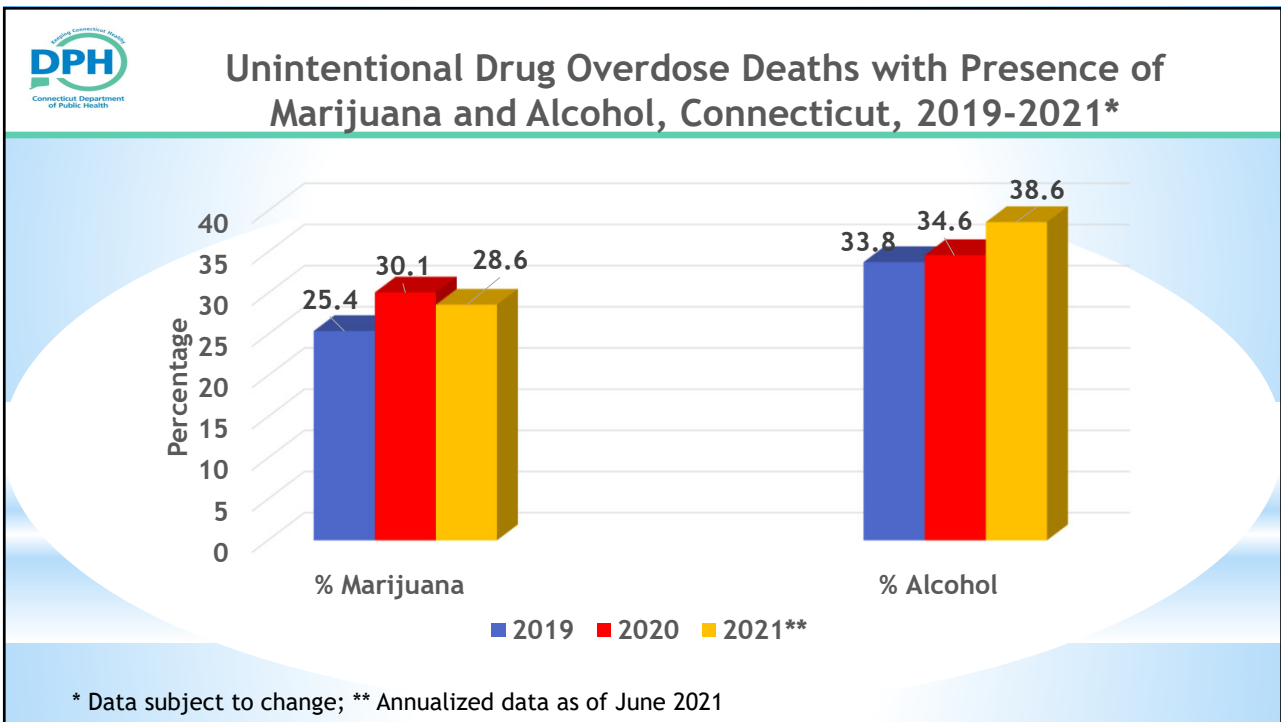


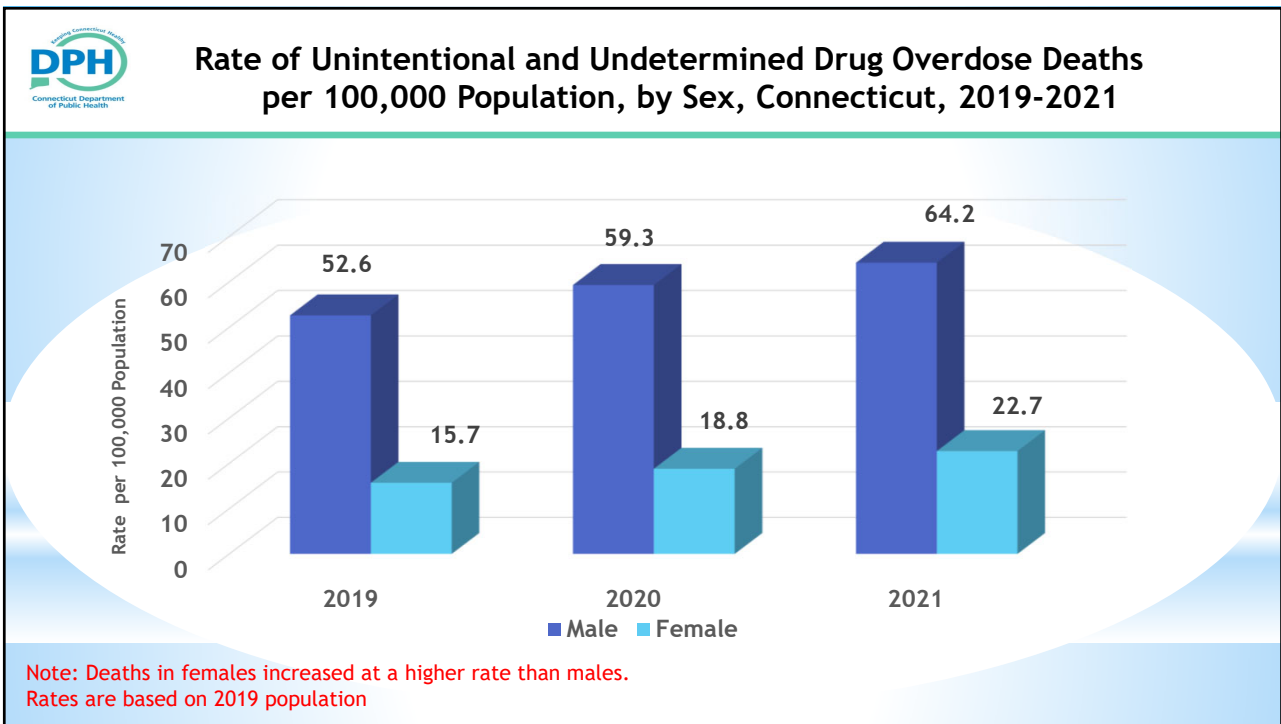


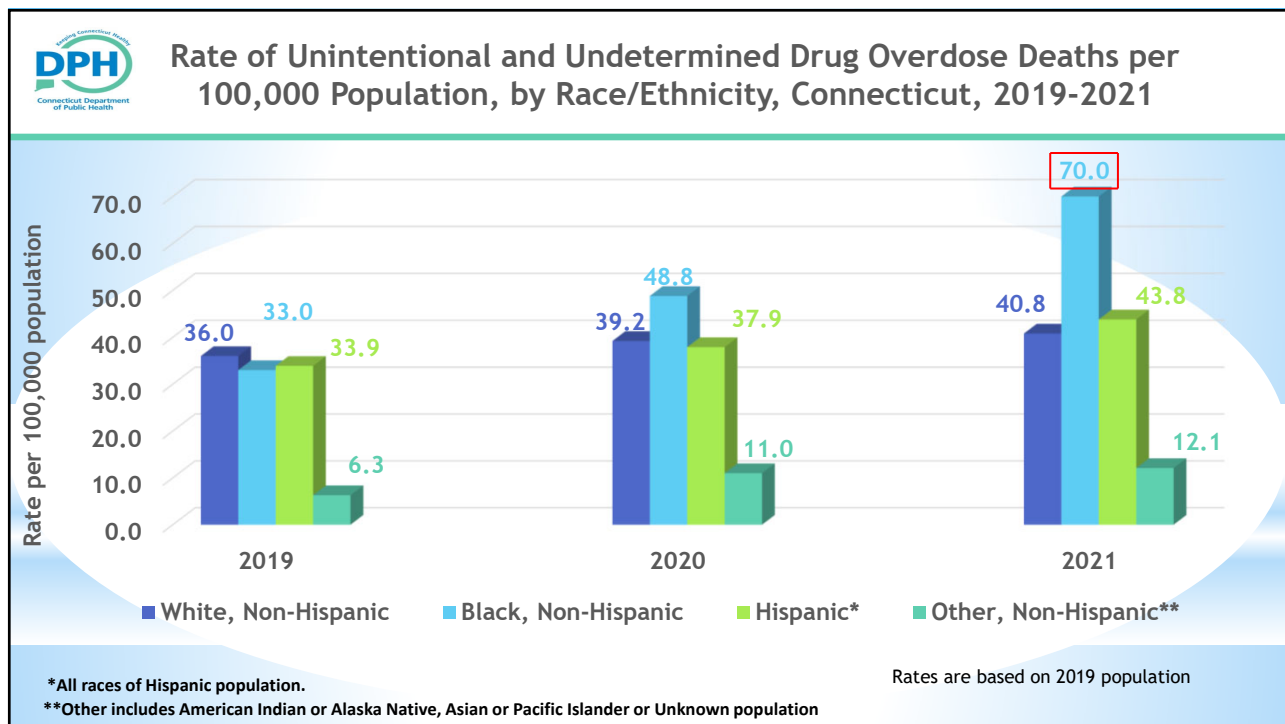
Substances Involved in Unintentional Drug Overdose Deaths Connecticut, 2019 to 2021

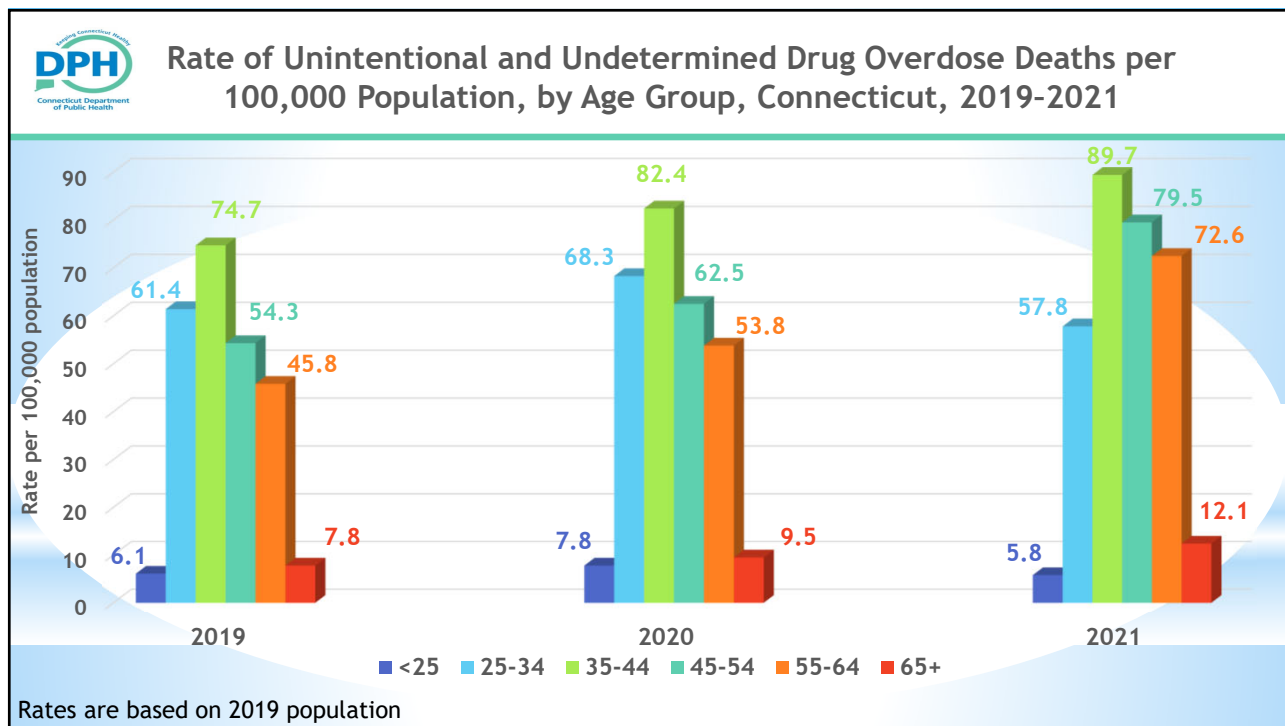
- No change in percentage of opioid-involved deaths
- 4% increase in fentanyl (82% vs 86%)
- 14% increase in cocaine + fentanyl
- 16% increase in cocaine in any death
- **19% increase in xylazine**
- 3% increase in methadone
- 2% increase in opioid + benzodiazepines
- 19% **decrease** in heroin

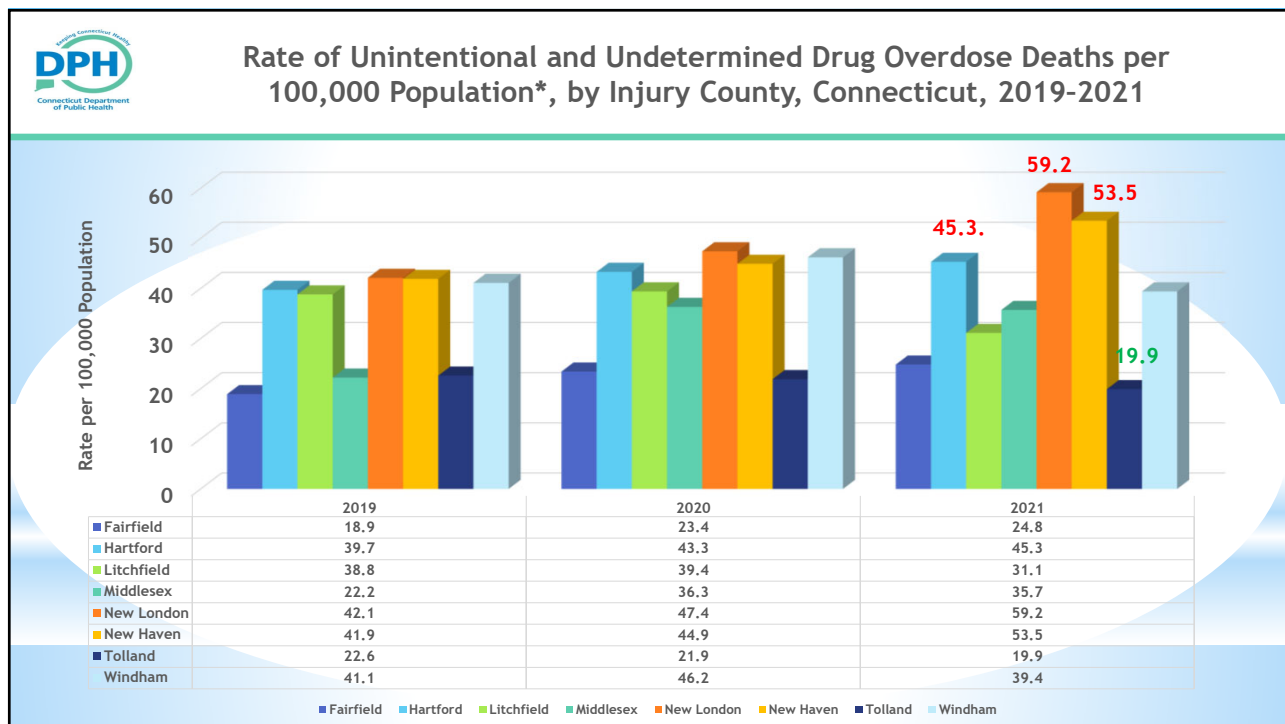














Key Findings of Drug Overdose Deaths During Pandemic, Connecticut, 2019-2021

- Drug overdose deaths increased in 2020 and 2021, compared to 2019.
- Drug overdose death rates increased for both males and females.
- Compared to the White population, drug overdose death rates increased more dramatically for Black and Hispanic populations in 2020 and 2021.
- Cocaine and cocaine + fentanyl deaths increased, whereas heroin deaths decreased.
- Identifying gaps, prompt data dissemination, and collaborating with multiple prevention partners are crucial components to preventing drug overdose deaths.

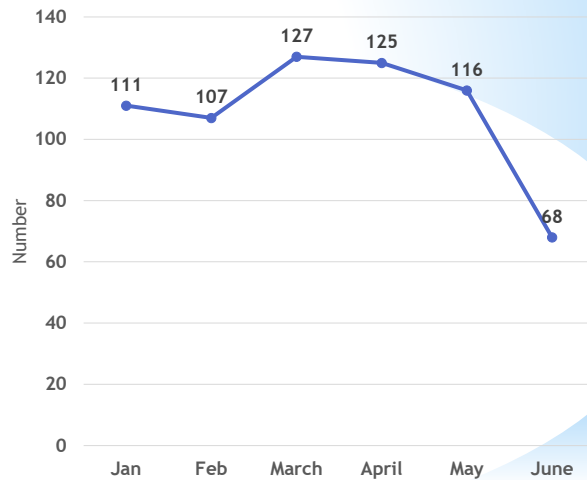


Unintentional Drug Overdose Deaths Connecticut, January - 1st week of July 2022*

• January to 1st week of July = **664** confirmed.

(There are several pending cases).

- 90.6% - Any opioid
- 85.4% - Fentanyl
- 45.7% - Cocaine
- 29.4% - Xylazine
- 17.1% - Benzodiazepines
- 11.9% - Gabapentin
- 5.8% - Heroin
- 5.8% - Oxycodone
- 24.8% - Alcohol



* Data subject to change



How do we collect circumstantial information about decedents?



Comprehensive Information of Fatal Drug Overdoses

Data source: SUDORS Data (State Unintentional Drug Overdose Reporting System)

The overall goals of SUDORS are to:

- Better understand the circumstances that surround overdose deaths and describes how the overdose death occurred.
- Improve overdose data timeliness and accuracy.
- Identify specific substances causing or contributing to the death.


(A look into the life of the decedent: for example, medical history, substance use disorder treatment history, and criminal justice involvement etc.)



How can SUDORS data be used for action

Because of the richness of the data and the different types of information, SUDORS data can be used for action in the following ways:

- Educating partners about location-specific circumstances and risk factors
- Alerting health providers, public health professionals, medical examiner and coroner offices, and other partners of newly emerging drug threats
- Informing drug overdose prevention and response planning and strategies using toxicology and circumstance data
- Evaluating the impact of overdose prevention and response efforts

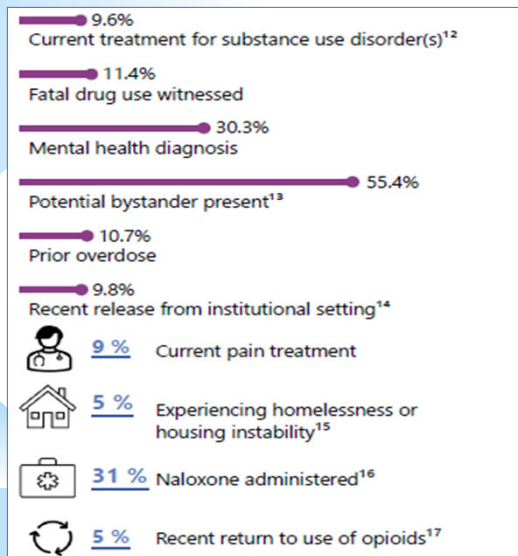


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**Circumstances Involved in Fatal Drug Overdose
2020 SUDORS Data Analysis**



What Circumstances were Documented? Unintentional drug overdose deaths, 2020



A potential bystander was present in 55% of deaths indicating there may have been an opportunity to provide life-saving actions at the time of overdose.

75% of drug overdose deaths had at least one opportunity for intervention

¹³ A person physically present nearby and potentially had an opportunity to intervene.
¹⁴ Released within a month before death from institutional setting .
¹⁵ Persons experiencing housing instability who lack the support network.
¹⁶ Naloxone is a life saving medication to reverse opioid overdose.
¹⁷ Recent period of abstinence from opioid use followed by return to use.



CDC SUDORS Summary of Unintentional and Undetermined Intent Drug Overdose Deaths in Connecticut – 2020

- **75% of the drug overdose deaths had at least one opportunity for intervention.**
- **Only 9.6% of the decedents had current treatment for Substance use disorder (SUD)**
- **11.4% of the deaths were witnessed by someone**
- **30.3% had mental health diagnosis**
- **55.4% potential bystander presence**
- **10.7% prior overdose**
- **9.8% recent release from Institutional setting**
- **31% naloxone administered**
- **5% housing instability**
- **5% relapsed decedents**




Educational Level of Drug Overdose Decedents, Connecticut, 2020 (N=1374) (As per Death Certificate Data)

- < or = 8th Grade = 40 (2.9%)
- 9th-12th grade = 88 (6.4%)
- High School or GED graduation = 734 (53.4%)
- Some College credits = 75 (5.5%)
- Associate = 75 (5.5%)
- Bachelor = 82 (6.0%)
- Master = 21 (1.5%)
- Doctorate = 4 (0.29%)
- Unknown = 249 (18.1%)



Overdose Fatality Review (OFR)

- In the process of forming Overdose fatality Review (OFR) board.
- Trained professional available (care Navigator) at Medical examiner office to talk to families.



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Data driven prevention efforts



Some of the highlights of SUDORS data implemented to drive prevention efforts

- 1. Advocacy to use fentanyl testing strips:** Illicitly Manufactured Fentanyl (IMF) was responsible for 85% of the deaths. Creating awareness, educating communities about dangers of fentanyl and fentanyl combinations, and the importance of using fentanyl testing strips are crucial. Encouraging communities to use test strips can save lives.
- 2. Gabapentin prescriptions:** CT DPH is collaborating with the Department of Consumer Protection for gabapentin prescription data investigation (between 2019 and 2021 presence of gabapentin increased from 7.3% to 13.1% in fatal drug ODs).
- 3. Disparities in demographic data:** Disparities in race/ethnicity and age groups were highlighted to LHDs, stressing the need for enhanced prevention work in these specific populations in local jurisdictions.




Some of the highlights of SUDORS data implemented to drive prevention efforts

4. To improve Medication for Opioid Use Disorder (MOUD):

- Prior substance misuse history and mental health issues are two major factors in drug overdose deaths.
- Approximately 29.3% of drug overdose decedents had either current or past substance use disorder treatment in 2019, and that percentage decreased during the pandemic years of 2020 (20.5%) and 2021 (21%).
- These findings were shared with the CT Department of Mental Health and Addiction Services (DMHAS) to help improve Medication for Opioid Use Disorder (MOUD) services.

5. Naloxone distribution: Analysis of SUDORS data also identified a gap in naloxone administration as only about 30% of decedents were administered naloxone either by first responders or other bystanders between 2019-2021, indicating a need to improve naloxone distribution and education among communities.



Overdose Data to Action (OD2A)
CDC funded grant to Connecticut
2020-2023



Data to Action: Data dissemination and Prevention efforts

Goals:

- To highlight the disparities and ‘gaps’ to improve prevention activities.
- To create awareness and educate local communities for data driven decisions.

Overdose Data to Action (OD2A) Grant

OD2A focuses on understanding and tracking the complex and changing nature of the drug overdose epidemic and highlights the need for seamless integration of data into prevention strategies.



Multiple activities and partnerships are focused on surveillance and prevention strategies.

OD2A addresses the opioid crisis based on five key strategies:

1. [Conduct surveillance and research](#)
2. [Build state, local and tribal capacity](#)
3. [Support providers, health systems and payers](#)
4. [Partner with Public Safety](#)
5. [Empower consumers to make safe choices](#)



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Overdose Morbidity Surveillance:

Collect and disseminate near real time emergency department (ED) data on suspected all drug, all opioid, heroin, and stimulant overdoses

Overdose Death Surveillance:

To collect and disseminate descriptions of drug overdose death circumstances using death certificates and medical examiner/coroner data

Innovative Surveillance Strategies:

- *Track illicit opioid drug supply
- *Data linking project to observe opioid and controlled substance prescriptions as a risk factor
- *Opioid overdose spike alerts; timely public health notification of local and regional stakeholders




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OD2A Prevention strategies for discussion:

- **Surveillance strategies (Epicenter, EMS, ODMaP, Weekly case log)**
- **PDMP linking**
- **Linkage to care (DOC)**
- **Planned parenthood**



Suspected Nonfatal Overdoses Involving Any Opioid

Month	2019	2020	2021	2022*	Grand Total
Jan	335	437	406	305	1,483
Feb	309	421	343	360	1,433
Mar	320	360	394	363	1,437
Apr	356	404	413	360	1,533
May	434	481	421	386	1,722
Jun	474	498	463	400	1,835
Jul	475	509	456	362	1,802
Aug	507	489	413		1,409
Sep	456	445	418		1,319
Oct	485	392	380		1,257
Nov	449	361	317		1,127
Dec	422	381	368		1,171
Grand Total	5,022	5,178	4,792	2,536	17,528

*Data current as of 07/18/2022 and is subject to change
Data source: Epicenter ED data

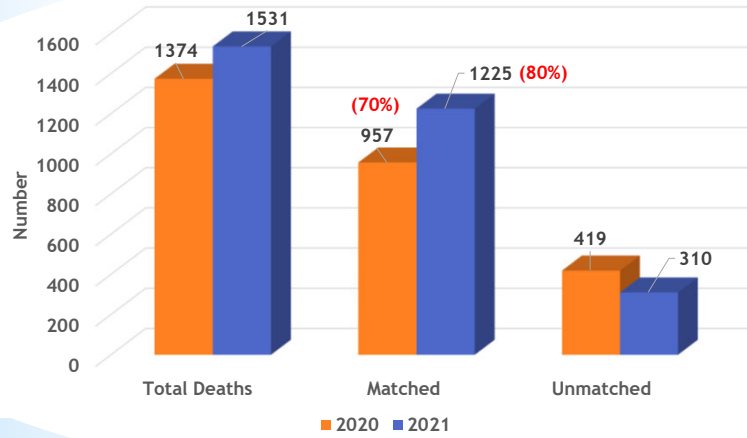


Prescription Data Exchange and Linking to Death Data

- * Office of the Chief Medical Examiner (OCME) provides case list to DPH and DPH sends list to DCP PMP
- * The variables used for linking are the decedent's **first name, last name, and date of birth**
 - * Variables are copied into a CSV file which is uploaded directly into the CPMRS and a bulk search is performed
- * Each individual record is reviewed
- * When an individual notifies pharmacy of any changes, then the PMP record would have all changes
 - * In the case of name changes, pharmacy must notify the PMP so all records for that individual can be consolidated into 1 record



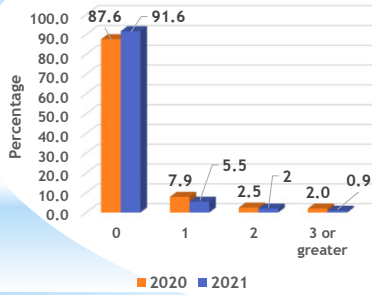
Number of Unintentional Drug Overdose Decedents Matched with Prescription data, Connecticut, 2020-2021



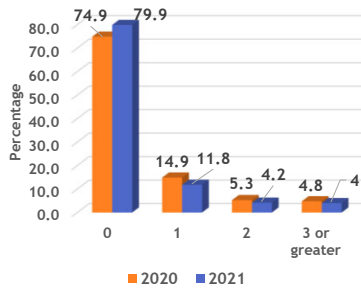


Opioid Prescription Data Matched to Death Data

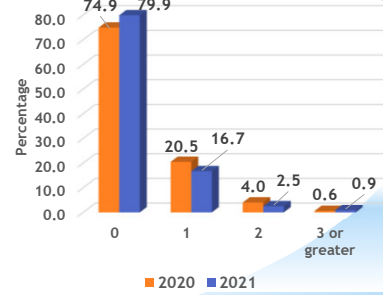
Percentage of Opioid prescriptions 30 days preceding the drug overdose death.



Percentage of Doctors Writing Opioid Prescriptions in the 180 Days Preceding Injury



Percentage of Pharmacies Dispensing Opioids to Decedent in 180 days Preceding Injury



Establishing Linkages to Care- Department of Correction

Objective:

Increase and improve coordination of linkage to treatment for Medication for Opioid Use Disorder (MOUD) among the criminal justice population.

1) No. of DOC inmates treated for MOUD prior to release.

240 (215 methadone & 25 buprenorphine) in 2019 to 316 (296 methadone & 20 buprenorphine) in 2020

2) No. of inmates linked to services immediately post release.

97% Inmate patients are connected to community care upon release.

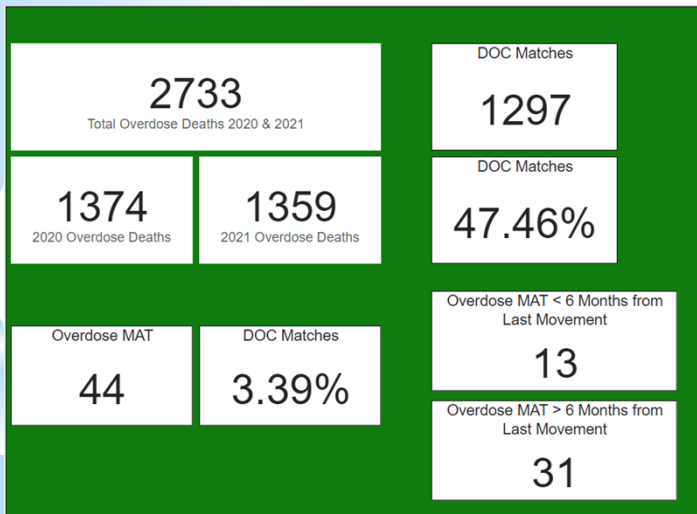


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Fatal Drug Overdoses Data Matched With Department of Correction (2020-2021)



- 1297 of 2733 Overdose Deaths matched to DOC Records (Time frame not available)
- 3.39% or 44 inmates Overdosed during this time frame (2020-2021) and were involved in MOUD at the time of release
- 13 of 44 (30%) Overdosed within 6 months of release (MOUD)
- 31 of 44 (70%) Overdosed over 6 months from release (MOUD)

Planned Parenthood SBIRT - Linkages to Care

(Screening, Brief Intervention and Referral)

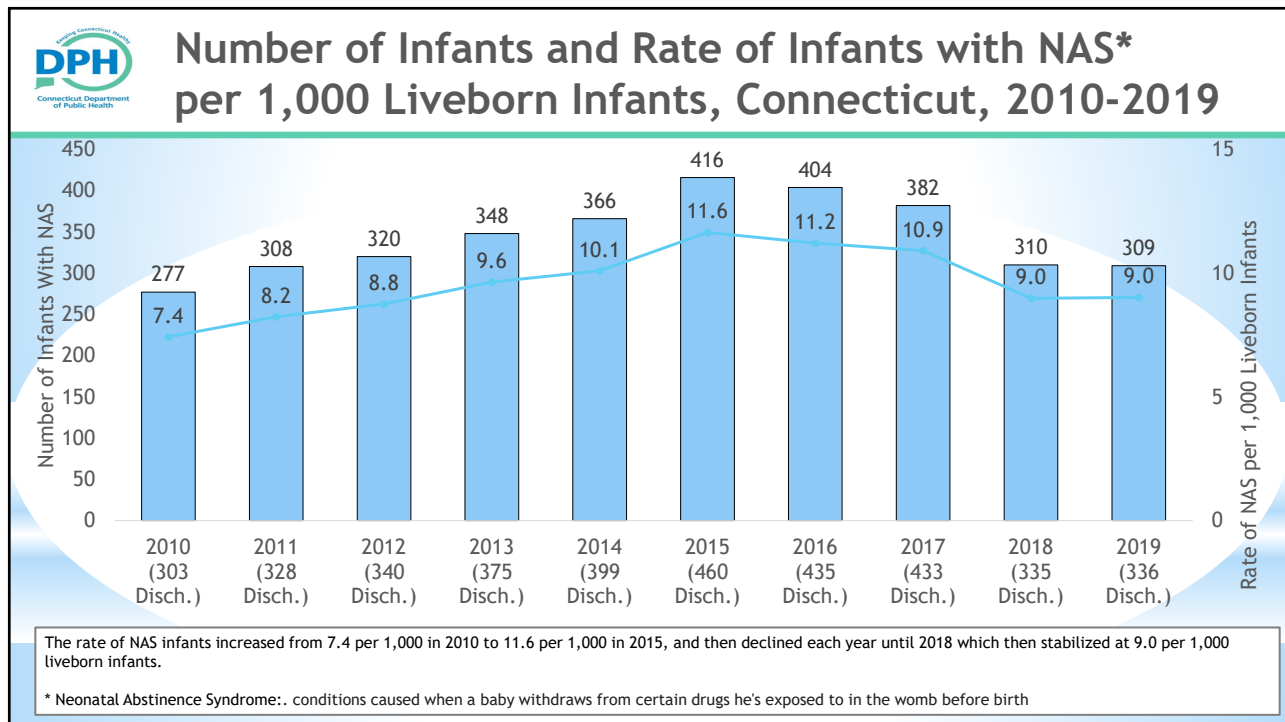
Objective:


Increase and improve coordination of linkages to care for addiction among CT women seen by Planned Parenthood of Southern New England (PPSNE) in their health centers.



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Data Dissemination to Key Stakeholders




How did we disseminate timely data?

- Data were shared regularly and in a timely manner with Local Health Departments (LHDs), State stakeholders, Opioid task forces, Prevention committees and other Community organizations through customized data analyses reports and PowerPoint presentations.
- Timely data update on DPH website: Monthly report updates, interactive Tableau Dashboard and Fact sheets. <https://portal.ct.gov/dph/Health-Education-Management--Surveillance/The-Office-of-Injury-Prevention/Opioids-and-Prescription-Drug-Overdose-Prevention-Program>
- Fatal data obtained from medical examiner office uploaded to ODMAP on daily basis.
- As needed 'Situational awareness alerts' are sent if any unexpected higher activity is identified.




Drug Overdose Data Available on DPH Portal

* <https://portal.ct.gov/DPH/Health-Education-Management--Surveillance/The-Office-of-Injury-Prevention/Opioids-and-Prescription-Drug-Overdose-Prevention-Program>



Monthly Drug Overdose Death Analytical Reports



Connecticut Department of Public Health
Drug Overdose Monthly Report

Fatal Unintentional and Undetermined Drug Overdose Report
Key Findings of Drug Overdose Decedents, 2019 – November 2021

- Current monthly report is based on confirmed fatal drug overdose cases for 2019, 2020 and January through the 1st week of November 2021. Statistics may change for 2021 as confirmation of cases occurs periodically. Period of analysis includes January 2019 through the 1st week of November 2021.
- The final and total number of fatal drug overdoses for 2020 was 1,378, with an increase of 14.6% from the previous year, 2019 with 1,202 overdose deaths.
- There were 1249 confirmed and several pending cases as of the 1st week of November 2021.
- **New and emerging substances:** Lethal combinations of xylazine, an animal tranquilizer, with fentanyl were identified in 2019 and continued in 2020. The same combination trends for 2021 also. In 2020, new emerging substances, Flualprazolam, a designer benzodiazepine, in combination with fentanyl resulted in 11 overdose deaths and Eutylone, a synthetic stimulant, resulted in 3 overdose deaths. Para-fluorofentanyl, a fentanyl analog, was present in 13 overdose deaths in 2020 and 81 as of the 1st week of November 2021.

Comparative Overview of Unintentional and Undetermined Drug Overdose Deaths (January 2019 – November 2021)

2020 and 2021	2019
There were 1,378 confirmed drug overdose deaths for 2020, with an increase of 14.3% compared to 2019. As of the 1 st week of November, there were 1,249 confirmed drug overdose deaths for 2021.	There were 1,202 unintentional and undetermined drug overdose deaths in 2019, with an increase of 16.7% compared to 2018.
The lethal combination of xylazine and fentanyl resulted in 141 deaths in 2020 with a median number of 11 and continues to be a problem in 2021 also. Between January and the 1 st week of November 2021, there were 242 deaths involving a fentanyl/xylazine combination.	For the first time in 2019, xylazine/fentanyl combinations were involved in 71 drug overdose deaths. The median number for xylazine-involved deaths was 7.
The average percentage of fentanyl or fentanyl analog involved deaths was at 85% for 2020 and 86% as of the 1 st week of November 2021.	On average, fentanyl or fentanyl analogs were involved in 82% of the overdose deaths in 2019.

Updated on 11-14-2021. Data Source: Connecticut Office of the Chief Medical Examiner (OCME), per CDC-SUDORS grant guidelines.
For substance use disorder information visit: <https://www.drugfreect.org>.

* This report contains an overview and summary analysis of unintentional and undetermined drug overdose deaths in Connecticut in 2019 and 2020, and preliminary data for 2021.



Drug Overdose Deaths Line Level data


DOD	Sex	Race	Ethnicity	Age	ResidenceVillage	ResidenceCity	ResidenceLHD	ResidenceCounty
1/4/2022	Female	White	No, not Spanish/Hispanic/Latino	31	Westbrook	Westbrook	Westbrook	Middlesex
1/4/2022	Male	White	Yes, Other Spanish/Hispanic/Latino (Specify)	56	New Haven	New Haven	New Haven	New Haven
1/4/2022	Male	White	No, not Spanish/Hispanic/Latino	63	Shelton	Shelton	Naugatuck Valley	Fairfield
1/5/2022	Female	White	No, not Spanish/Hispanic/Latino	41	Weatogue	Simsbury	Farmington Valley	Hartford
1/5/2022	Male	Asian Indian	No, not Spanish/Hispanic/Latino	37	Wilton	Wilton	Wilton	Fairfield
1/5/2022	Male	Black or African American	No, not Spanish/Hispanic/Latino	36	Norwich	Norwich	Uncas	New London
1/5/2022	Male	Black or African American	No, not Spanish/Hispanic/Latino	68	Hartford	Hartford	Hartford	Hartford
1/5/2022	Male	White	Yes, Other Spanish/Hispanic/Latino (Specify)	32	Hartford	Hartford	Hartford	Hartford
1/5/2022	Male	White	No, not Spanish/Hispanic/Latino	47	New Fairfield	New Fairfield	New Fairfield	Fairfield



Overdose Death Data Dashboard

- * Interactive data visualization dashboard for drug overdose deaths in Connecticut from 2015 to 2021*
- * Demographic, geographic and drug breakdowns by year
- * Available at:
https://public.tableau.com/app/profile/heather.clinton/viz/SUDORS_Dashboard_final2/OverdoseDashboard

**Data subject to change*



Key elements to reduce burden of overdoses in communities



Key Elements to Reduce the Overdose Burden in Communities

- Timely data analysis, identifying the gaps and prompt data dissemination are crucial components.
- Collaboration and active participation with multiple prevention partners is important.
- Customized data reports for jurisdictions to help target local communities most in need as data drives good decisions.



Top Priorities:

- * To reduce influx of illicit drugs (fentanyl) and to disrupt drug trafficking operations. *Results from National Urine Drug Test (UDT) results reported that synthetic opioid use in USA increased by 800% over 7 years.*
- * To increase awareness about dangers of fentanyl and pressed pills.
- * To Educate about the importance of naloxone and wide distribution/availability of naloxone to communities in need.
- * Stigma reduction. Break the stigma and create hope, “recovery is possible”.
- * To enhance mental health help and MOUD programs, so that capacity meets the needs of everyone.
- * Timely actionable data to guide the overdose response strategies.



Structural and policy-level interventions are essential to address access barriers



Source: CDC



Together we can make a difference!

Q & A
Thank You !