





THE NORWALK PARTNERSHIP COALITION MEETING: NORWALK SUBSTANCE USE OVERVIEW WITH FOCUS ON EMERGENCY DEPARTMENT (ED) VISITS



City of Norwalk Health
Department

Brian Weeks, Epidemiology Division

March 29, 2023





Drinking alcohol while using opioids increases the risk of overdose and death.

www.cdc.gov/alcohol



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Important!: Disclaimers/Reminders (Please Read)

- <u>Warning</u>: Presentation will contain terminology, topics, or information that may be considered graphic/triggering to some audiences.
- All information and data are up to date as of March 28, 2023 and are provisional/subject to change.
- Only records using Norwalk standard postal zip codes analyzed as all record-level data in EpiCenter anchored by zip code (06850, 06851, 06853, 06854, and 06855) and nothing more geographically granular available. Zip codes may overlap with other towns.
- <u>Counts</u> or <u>Cnt</u> account for only 1 visit per day (i.e., <u>ED Visit Days</u>). Multiple visits by same patient beyond original day attributed 1 visit day per each additional/different day. This is important as a means to reduce skewing/confounding of data for multiple visits by same patient during same day for same reason, which does occur!
- <u>Unique ("Uniq") Patients</u> variable filters for possible repeat ED visit days by patient and interprets each unique patient as a sole individual counted only once for the entire time interval assessed.
- <u>Counts</u> or <u>Unique Patients</u> < 7 not depicted for confidentiality purposes.
- Rates with a count < 20 are considered unstable/unreliable (see green [≥ 20]/red [< 20] font).
- Rates calculated using US Census American Community Survey (ACS) 2021 5-year estimates per 1,000 (i.e., 1k) residents.
- Race/Ethnicity counts and rates depicted as non-Hispanic (e.g., White or Black/African-American [AA] implies non-Hispanic [NH] Whites or non-Hispanic Blacks/AA), unless specified as Hispanic/Latino.
- Given the use of syndromic classifiers/definitions, variability of intake/discharge notes/codes, zip code anchoring, and census estimates in tabulations/calculations, <u>all values presented are considered estimates</u> and should be interpreted with caution and consideration of a margin of error. As analyses become more granular or specific, this margin of error increases, which entails decreasing accuracy/reliability of the value.
- Data analyzed from EpiCenter Syndromic Surveillance for CT hospitals for Norwalk resident zip codes only.



What Is Syndromic Surveillance and Its Purpose?



- Healthcare providers are required to report Emergency Illnesses and Health Conditions in accordance with the DPH's annual "List of Reportable Diseases, Emergency Illnesses and Health Conditions" in a format approved by the state Health Commissioner per Conn. Gen. Stat. §§ 19a-2a(9) and 19a-215(b).
- Guidance developed and provided by CDC National Syndromic Surveillance Program (NSSP) in implementing syndromic systems and definitions of illnesses and conditions.
- In CT, no other system supported this type of data in a timely manner for local health departments until EpiCenter.
- Other states use similar systems with differing levels of robustness/capability. One of most common is the Early Notification of Community-Based Epidemics (ESSENCE).









What Is the EpiCenter Syndromic Surveillance System?

- Browser-based application.
- Rolled out to CT local health departments (LHDs) in 2018/2019.
- Developed by the CT Department of Public Health (CT DPH) with vendor, Health Monitoring Systems (HMS), Inc, and local health support.
- Designed for LHDs to receive timely and preliminary ED visit data defined by syndrome and classifier definitions.
- Categorizes emergency department (ED) visits by intake/discharge notes and codes—does
 not use or account for insurance, other code types, physician notes, or other medical test info
 in records.
- Contains pertinent fields for demographic and basic visit data such as age, sex, race/ethnicity, date and time of visit, reason for visit, etc.
- Limited accuracy down to zip code—does not provide identifiable data/information, so no residence street address, phone number, names, etc.
- Can see detailed data only for zip codes associated with jurisdiction (i.e., Norwalk).
 - Close to real-time data compared to other sources for LHDs.
 - Evaluates ED visits and <u>not</u> hospitalization data!





Alcohol-Associated Syndromic Classifier Definition Example



- Example of some terms/text parsed for the alcohol classifier
- Example ICD codes captured include: F10.0-F10.1
- This is a continually evolving process in the public health practitioner and research community at all levels

Indicators (+)	Co-Indicators	Indicators (-)
1ntox		\bno al
\balch		alcohol screen
\balco		alcohol test
\bintx		alcorn
achoho		non al
acoho		nonal
\balc\b		with\s*out\s*((me
		ntion\s*of\s*) (an
3.5		y\s*))?alc
alcaho		
alchiho		
alcohol		
alochol		
drank to m		
drank too m		
drinking prob		
drinking too		
drunk		
entox		
\betho\b		
ethoh		
ethol		
etoh	20/	
excessive drinking		
heavy drink		
intox		
jello shot		
poss drinkin		
possible drinkin		
too much to dr		







Important Notes

 For following demographic data slides, the color-coded text bubbles are defined as the following:

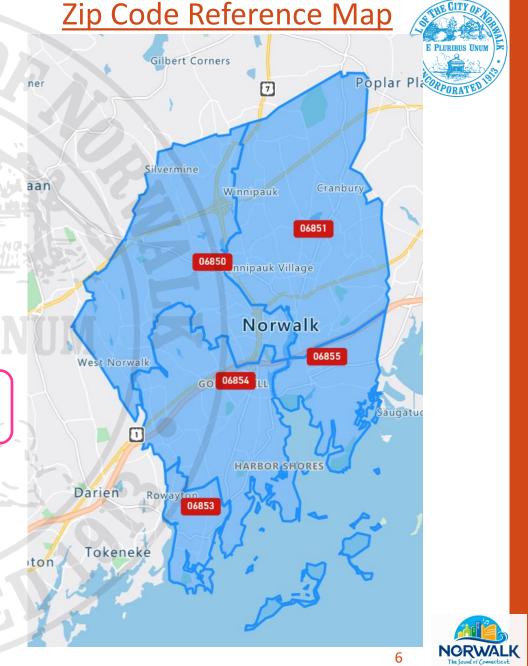
 Highest unique "uniq" patient count for demographic measure evaluated in time interval

= Highest unique patient rate for demographic measure evaluated in time interval

= Both the highest unique patient count and rate for demographic measure evaluated in time interval

 All chart visuals depict the unique patient rates and <u>not</u> counts!

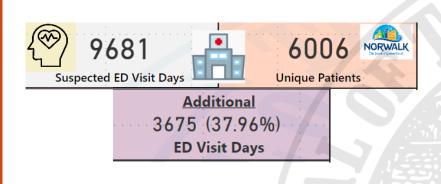
All maps depict the common Norwalk zip codes

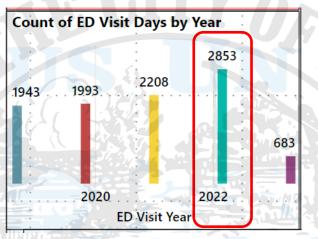




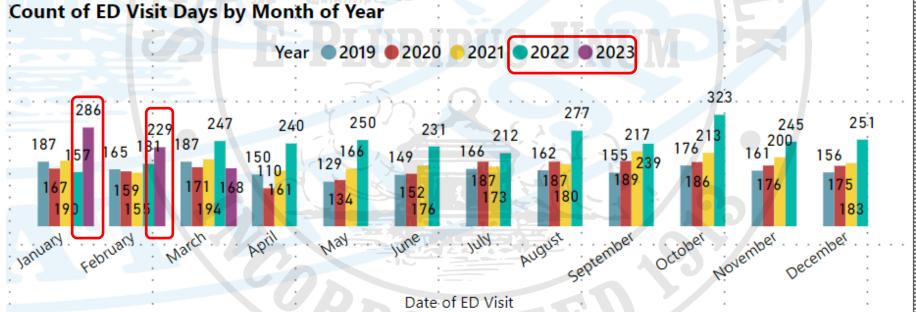
NORWALK Mental Health ED Visit Days by ED Visit Year (2019-March 28, 2023)







2022 the highest year for Mental Health-Associated ED visits for recent annual data (since 2019).





2022 consistently the highest for month-by-month Suspected Mental Health-Associated ED visit days compared to other years, except for both January and February 2023 at the highest for this comparison!





Suspected Mental Health (2022-Mar 28, 2023)



Suspected Mental Health-Associated ED Visit Days for Norwalk Residents

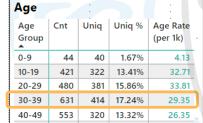


3536

Suspected ED Visit Days

Additional 1128 (31.90%) **ED Visit Days**

JUX				
Sex	Cnt	Uniq	Uniq %	Sex Rate (per 1k)
F	2114	1425	59.18%	31.26
М	1422	984	40.86%	21.75



13.32%

11.74%

7.37%

6.66%

23.28

26.38

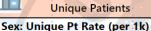
29.50

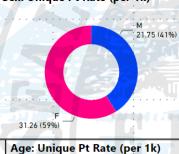
48.03

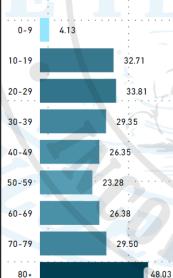
Age Group	Cnt	Uniq	Uniq %	Age Rate (per 1k)
< 18	396	302	12.57%	11.48
18-24	311	248	10.32%	9.43
25-44	1158	795	33.10%	30.22
45-64	1046	596	24.81%	22.65
65+	619	466	19.40%	17.71
				:

160



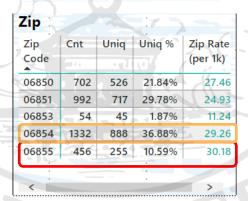












1.4x greater rate for females and 1.4x greater rate for 80+ vs 20-29 y/o

Race/Ethnicity: Unique Pt Rat	e (per 1k)
● Black/AA ● Hispanic/La	atino White Other
Other 10.69 (11%)	
White 23.41 (25%)	Black/AA 34.87 (37%)
Hispanic/Latino 24.37 (26%)	
24.37 (26%)	<u> </u>

Race/Eth				
Race/ Ethnicity	Cnt	Uniq	Uniq % ▼	Race Rate (per 1k)
White	1605	1088	45.18%	23.41
Hispanic/ Latino	838	640	26.58%	24.37
Black/AA	700	376	15.61%	34.87
Unknown	307	236	9.80%	
Other	86	78	3.24%	10.69
		:		:

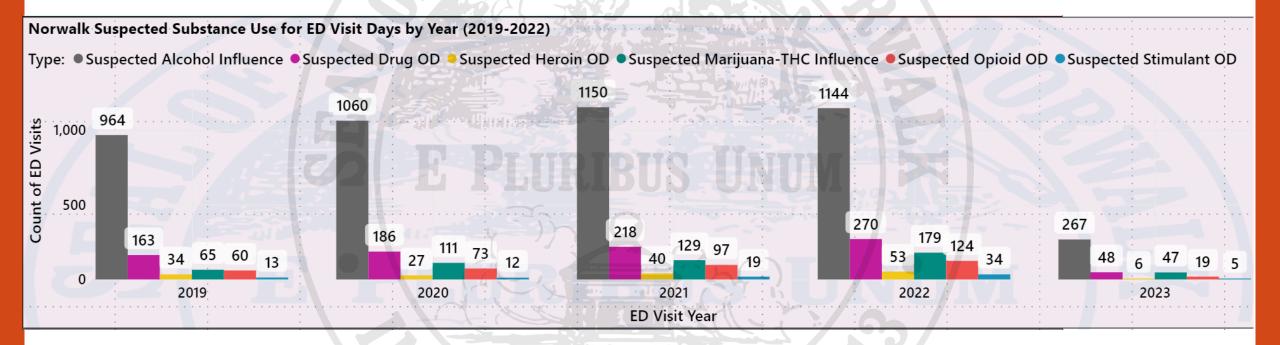
1.5x greater rate Black/AA vs Whites







Overall Norwalk Substance Use Situation by ED Visit Days by ED Visit Year (2019-March 28, 2023)





- Suspected or Associated Alcohol, Drug, Opioid, and Marijuana/THC consistently growing since 2019!
- Heroin and Stimulants growing since 2020! The pandemic also may have contributed to the decrease from 2019 to 2020.
 - Alcohol the largest contributor in either a primary or secondary influence

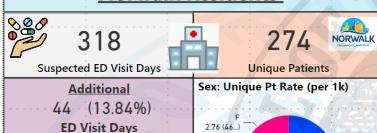




Suspected Drug ODs (2022-Mar 28, 2023)



Suspected Drug ED Visit Days for Norwalk Residents



0-9

10-19

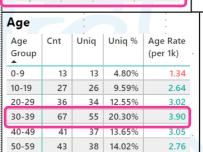
20-29

30-39

80+

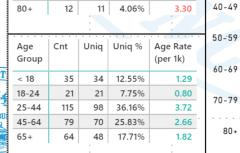
3.65

Se	ex		:		
S	ex	Cnt	Uniq	Uniq %	Sex Rate (per 1k)
F		141	126	45.99%	2.76
N	1	177	148	54.01%	3.27

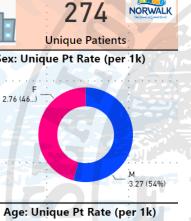


39 14.39% 19

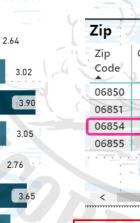
7.01%





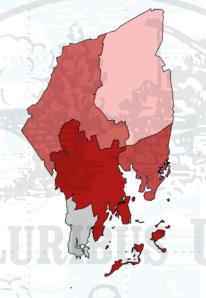


1.34



3.30

Zip: Unique Pt Rate (per 1k)



Zip				
Zip Code	Cnt	Uniq	Uniq %	Zip Rate (per 1k)
06850	69	60	22.22%	3.13
06851	81	71	26.30%	2.47
06854	129	111	41.11%	3.66
06855	35	28	10.37%	3.31
	3			
<				>

Race/Ethnicity: Unique Pt Rate (per 1k) ● Black/AA ● White ● Hispanic/Latino ● Other Other 0.82 (7%) -Hispanic/Latino 2.29 (19%) Black/AA 6.12 (51%)

Race/Eth	nicity	y :		:
Race/ Ethnicity	Cnt	Uniq	Uniq % ▼	Race Rate (per 1k)
White	148	128	47.76%	2.75
Black/AA	75	66	24.63%	6.12
Hispanic/ Latino	74	60	22.39%	2.29
Unknown	15	14	5.22%	

1.2x greater rate for Males and 30-39 and 60-69 y/o highest rates

2.2x greater rate Black/AA vs Whites





Suspected Opioid ODs (2022-Mar 28, 2023)



Suspected Opioid ED Visit Days for Norwalk Residents NORWALK 143 Suspected ED Visit Days **Unique Patients** Sex: Unique Pt Rate (per 1k) Additional (22.38%)**ED Visit Days** Sex Sex Unig % Sex Rate (per 1k) 44 39.64% 0.97 67 60.36% 1.48 Age: Unique Pt Rate (per 1k) Age Uniq Uniq % Age Rate Cnt Group 10-19 0.10 13 12.50% 20-29 26 25.00% 30-39 1.84 40-49 18 17.31% 1.48 20-29 1.15 21 20.19% 1.53 50-59 60-69 33 20 19.23% 1.84 30-39 1.48 40-49 50-59 1.53

60-69

70-79

80+

1.20

1.37

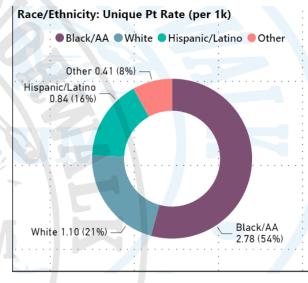
Uniq Uniq % Age Rate

36 33.96%

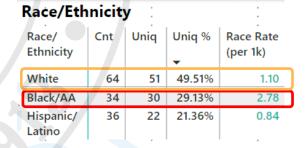
Group







Zip Code	Cnt	Uniq	Uniq %	Zip Rate (per 1k)
06850	28	19	17.43%	0.99
06851	37	28	25.69%	0.97
06854	56	48	44.04%	1.58
06855	20	14	12.84%	1.66



1.5x greater rate for Males and 30-39 and 60-69 y/o highest rates

2.5x greater rate Black/AA vs Whites

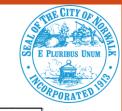


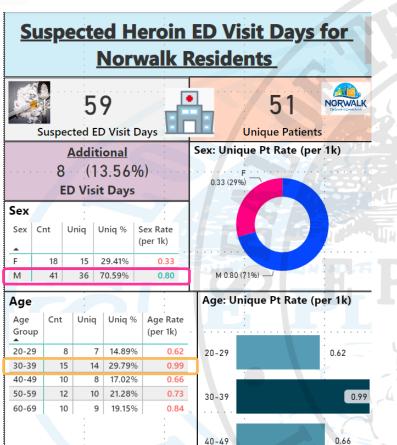


Group

29

Suspected Heroin ODs (2022-Mar 28, 2023)





50-59

60-69

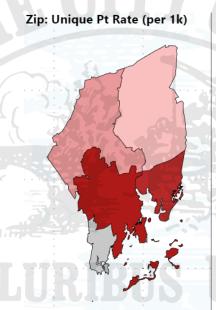
70-79

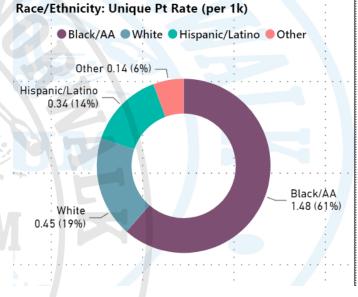
0.84

0.33

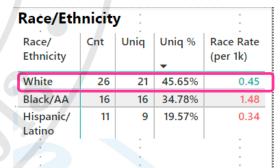
(per 1k)

25 56.82%





Zip Code	Cnt	Uniq	Uniq %	Zip Rate (per 1k)
06850	10	. 8	16.00%	0.42
06851	10	8	16.00%	0.28
06854	28	27	54.00%	0.89
06855	10	7	14.00%	0.83
1				



Males highest rate and 30-39 y/o largest volume

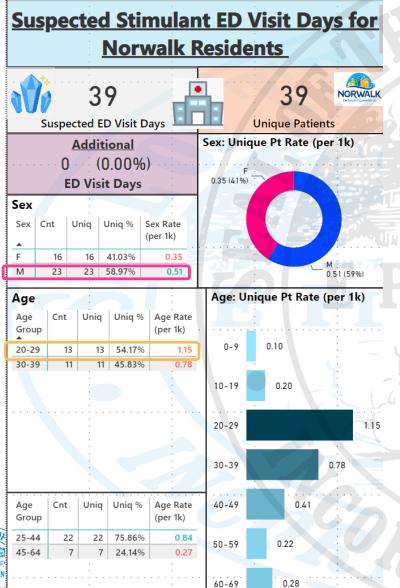
Whites highest volume

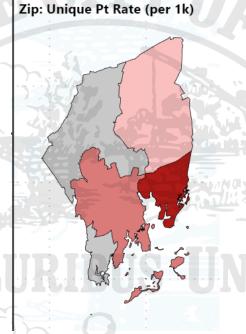


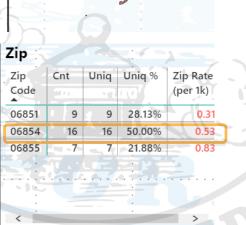


Suspected Stimulant ODs (2022-Mar 28, 2023)









Males highest rate and 20-29 and 30-39 y/o most impacted by volume

Race/Ethnicity: Unique Pt Ra	ate (per 1k)
● Black/AA ● Hispanic/	Latino White Other
Other 0.14 (8%)	Black/AA · · · · 0.74 (43%)
0.30 (18%)	0.74 (43%)
Hispanic/Latino	

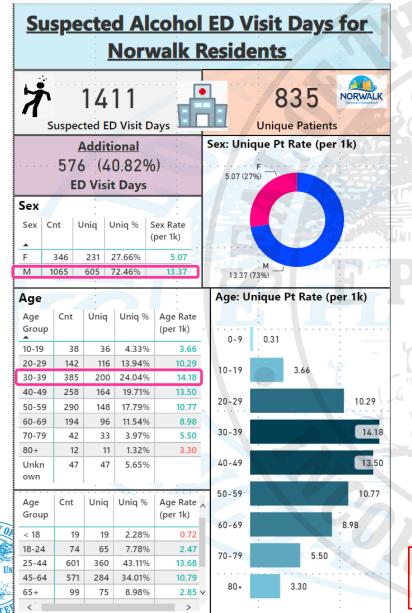
Race/Eth	nicity	y :		:
Race/ Ethnicity	Cnt	Uniq	Uniq % ▼	Race Rate (per 1k)
Hispanic/ Latino	14	14	38.89%	0.53
White	14	14	38.89%	0.30
Black/AA	8	.8	22.22%	0.74
				:

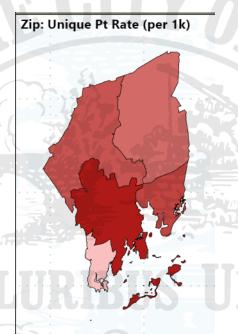
Hispanics/Latino and Whites tied at largest volume



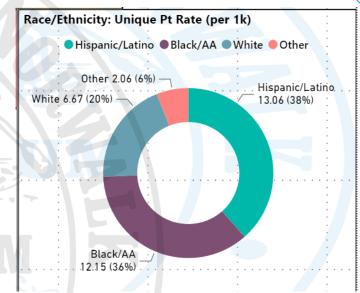


Suspected Alcohol-Associated (2022-Mar 28, 2023)





Zip	Cnt	Uniq	Uniq %	Zip Rate
Code	Cit	omq	Office 70	(per 1k)
06850	250	169	20.24%	8.82
06851	302	215	25.75%	7.48
06853	9	9	1.08%	2.25
06854	666	374	44.79%	12.32
06855	184	83	9.94%	9.82



Race/	Cnt	Uniq	Uniq %	Race Rate
Ethnicity			•	(per 1k)
Hispanic/	562	343	41.08%	13.06
Latino				
White	529	310	37.13%	6.67
Black/AA	258	131	15.69%	12.15
Unknown	46	40	4.79%	
Other	16	15	1.80%	2.06

2.6x greater rate for Males and 30-39 and 40-49 y/o highest rates

2x greater rate Hispanic/Latino vs Whites. Black/AA high as well.

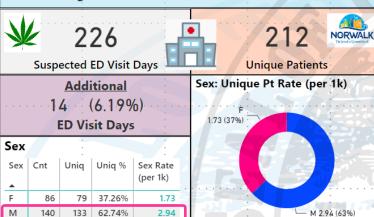




Suspected Marijuana/THC-Associated (2022-Mar 28, 2023)



Suspected Marijuana-THC ED Visit Days for Norwalk Residents



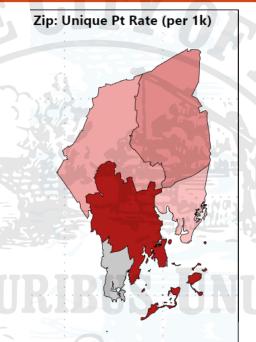
1k)

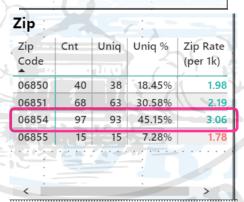
5.49

				•		
Age					Age: U	nique Pt Rate (per
Age Group	Cnt	Uniq	Uniq %	Age Rate (per 1k)		
10-19	55	54	25.71%	5.49	0-9	0.10
20-29	76	69	32.86%	6.12	١ .	
30-39	42	39	18.57%	2.76	10-19	
40-49	23	21	10.00%	1.73		
50-59	17	17	8.10%	1.24	20-29	
60-69	11	10	4.76%	0.94	20 27	
					30-39	2.76
					40-49	1.73
Age Group	Cnt	Uniq	Uniq %	Age Rate (per 1k)	50-59	1.24
< 18	38	37	17.79%	1.41		
18-24	58	53	25.48%	2.01	60-69	0.94
25-44	91	85	40.87%	3.23		

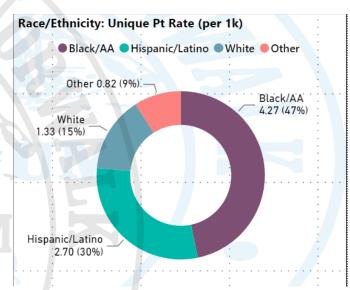
70-79

33 15.87%





1.7x greater rate for Males and 10-19 and 20-29 highest rates



Race/Eth	:			
Race/ Ethnicity	Cnt	Uniq	Uniq % ▼	Race Rate (per 1k)
Hispanic/ Latino	77	71	34.47%	2.70
White	68	62	30.10%	1.33
Black/AA	47	46	22.33%	4.27
Unknown	28	27	13.11%	

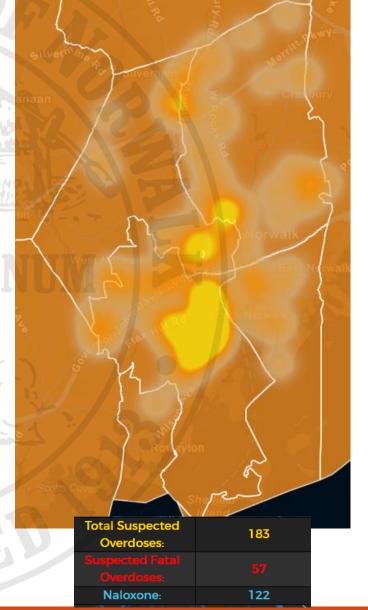
3.2x greater rate Black/AA vs Whites. Hispanic/Latino and Black/AA most impacted





ODMAP (2022-March 28, 2023 Heat Map of Overdose Calls Depicted)

- Overdose Mapping and Application Program (ODMAP) by the High Intensity Drug Trafficking Areas (HIDTA) Program
- ODMAP is only available to government (tribal, local, state, and federal) entities serving the interests of public safety and/or public health as part of its official mandate. ODMAP is also available to licensed first responders and hospitals.
- Almost 4,000 agencies in all 50 states, the District of Columbia, and Puerto Rico use ODMAP
- Maps the CT mandated reporting by Emergency Medical Services (EMS) to the CT Poison Control Center (CPCC) of every suspected overdose call regardless of naloxone use
- Alerts: Who would be interested to receive alerts
 if Fairfield County experiences an uptick of activity
 meeting a specific threshold? Alerts only as
 specific as county-level.







Overview of Years of Potential Life Lost (YPLL) and Overdose Mortality

TABLE 71

Years of potential life lost by cause of death

ANNUALIZED YEARS OF POTENTIAL LIFE LOST BEFORE AGE 75 PER 100,000 RESIDENTS, 2015-2021

LOCATION	CANCER	POISONING (INCL. OVERDOSE)	HEART DISEASE (INCL. STROKE)	COVID-19	MOTOR VEHICLE CRASH	LUNG DISEASE	FIREARM (INCL. HOMICIDE & SUICIDE)
Connecticut	1,532	1,303	1,186	599	409	348	267
Fairfield County	1,245	858	954	542	281	219	222
Bridgeport	1,547	1,370	1,547	968	521	417	955
Danbury	1,295	1,154	1,044	637	346	237	78
Fairfield	1,055	639	600	315	156	137	81
Greenwich	922	494	470	210	44	82	72
Norwalk	1,329	818) /	1,201	916	234	286	89
Stamford	1,161	526	863	575	284	142	145
Stratford TABLE 7J	1,718	1,644	1,317	839	291	325	236

Overdose deaths increased during the pandemic

ANNUALIZED ACCIDENTAL OVERDOSE DEATH COUNTS AND AGE-ADJUSTED RATES PER 1 MILLION RESIDENTS, 2014–2016 TO 2020–2021

	2014-2016			2017-2019	2020 AND 2021	
LOCATION	COUNT	RATE PER MILLION	COUNT	RATE PER MILLION	COUNT	RATE PER MILLION
Connecticut	2,137	102	3,119	149	2,781	193
Fairfield County	337	62	463	83, 0 4	427	112
Bridgeport	95	107	169	194	155	257
Danbury	35	66	49	91	47	135
Fairfield	19	59	13	51	19	82
Greenwich	11	33	10	37	9	41
Norwalk	28	53	41	70	37	92
Stamford	22	27	39	46	43	74
Stratford	39	125	47	153	36	161

https://www.ctdatahaven.org/sites/ctdat ahaven/files/DataHaven FC2023-web.pdf









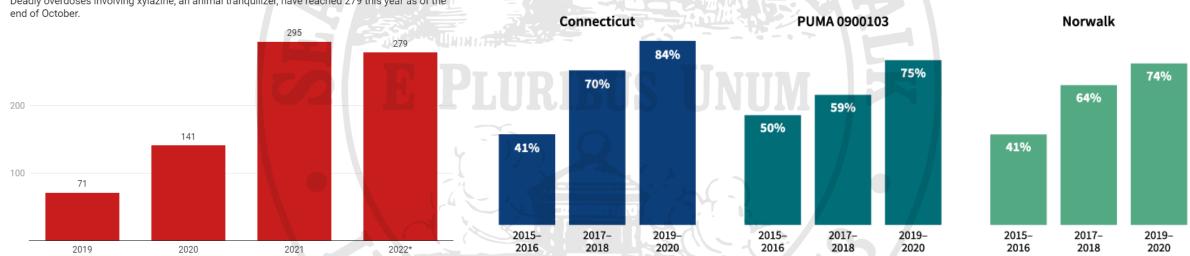
Xylazine in CT Drug Overdose Deaths (2019-2022*)

Fentanyl in Drug Overdose Deaths (2015-2020)

Animal tranquilizer implicated in growing number of overdose deaths

Deadly overdoses involving xylazine, an animal tranquilizer, have reached 279 this year as of the





Note: *Data for 2022 ranges from January through October.

Chart: José Luis Martínez • Source: Connecticut Department of Public Health • Get the data • Created with Dataw



- https://ctmirror.org/2022/12/22/ct-overdose-deaths-xylazine-animal-tranguilizer/
- https://www.ctdatahaven.org/sites/ctdatahaven/files/norwalk_profile_v1.pdf





FDA Approval of OTC Narcan (Today: March 29, 2023!)





FDA NEWS RELEASE

FDA Approves First Over-the-Counter Naloxone Nasal Spray

Agency Continues to Take Critical Steps to Reduce Drug Overdose Deaths Being Driven Primarily by Illicit Opioids



For Immediate Release: March 29, 2023

Today, the U.S. Food and Drug Administration approved Narcan, 4 milligram (mg) naloxone hydrochloride nasal spray for over-the-counter (OTC), nonprescription, use the first naloxone product approved for use without a prescription. Naloxone is a medication that rapidly reverses the effects of opioid overdose and is the standard treatment for opioid overdose. Today's action paves the way for the life-saving medication to reverse an opioid overdose to be sold directly to consumers in places like drug stores, convenience stores, grocery stores and gas stations, as well as online.

The timeline for availability and price of this OTC product is determined by the manufacturer. The FDA will work with all stakeholders to help facilitate the continued availability of naloxone nasal spray products during the time needed to implement the Narcan switch from prescription to OTC status, which may take months. Other formulations and dosages of naloxone will remain available by prescription only.

Drug overdose persists as a major public health issue in the United States, with more than 101,750 reported fatal overdoses occurring in the 12-month period ending in October 2022, primarily driven by synthetic opioids like illicit fentanyl.





https://www.fda.gov/news-events/press-announcements/fda-approves-first-over-counter-naloxone-nasalspray#:~:text=Today%2C%20the%20U.S.%20Food%20and,for%20use%20without%20a%20prescription





Conclusions/Takeaways

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- Relative to the ED visit syndromic surveillance data, all substances studied and used illicitly or improperly are growing concerns in the Norwalk community.
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- Mental health ED visits continue increasing in parallel, and substance use can be both a contributor and/or manifestation of these increasing number of events as they often intersect
- Although Females remain consistently the most likely candidates to seek/require ED visits for Mental Health, Males remain
 consistently the highest candidates for substance use-related/-associated ED visits studied
- For Mental Health, 80+ y/o Black/African-American Females are the most common demographics by <u>unique patient rate</u>,
 while 30-39 y/o Non-Hispanic White Females by <u>unique patient volume</u>.
- By <u>unique patient rate</u>, Black/AA disproportionately impacted for most substances for ED visits—Hispanic/Latino notably for Alcohol. The 30-39 and 60-69 year old age groups remain the highest and common theme for opioids. A noticeable curve appears peaked at the 30-49 year old age groupings with Alcohol.
- Marijuana/THC is one of the primary substances contributing to/associated with younger age group (10-29 y/o) ED visits
- The 06584 Zip Code (West Norwalk/SONO) of residence consistently presents as the highest by rate and an indicator of risk.
 Conversely, 06853 (Rowayton) remains consistently the lowest, and Alcohol is 06853's only substance > 7 unique patients.

Feel free to share any comments or questions. These analyses will continue to evolve as we continue to work together to address coordination, need, and equity! Thank you.

