Innovative Surveillance CoP Local Outbreak Detection Workgroup Call: Connecticut Drug Overdose Response

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Presentation Outline

* The role EMS data plays in suspected overdose surveillance for Connecticut.

* The role of Syndromic Surveillance in monitoring suspected overdoses in Connecticut.

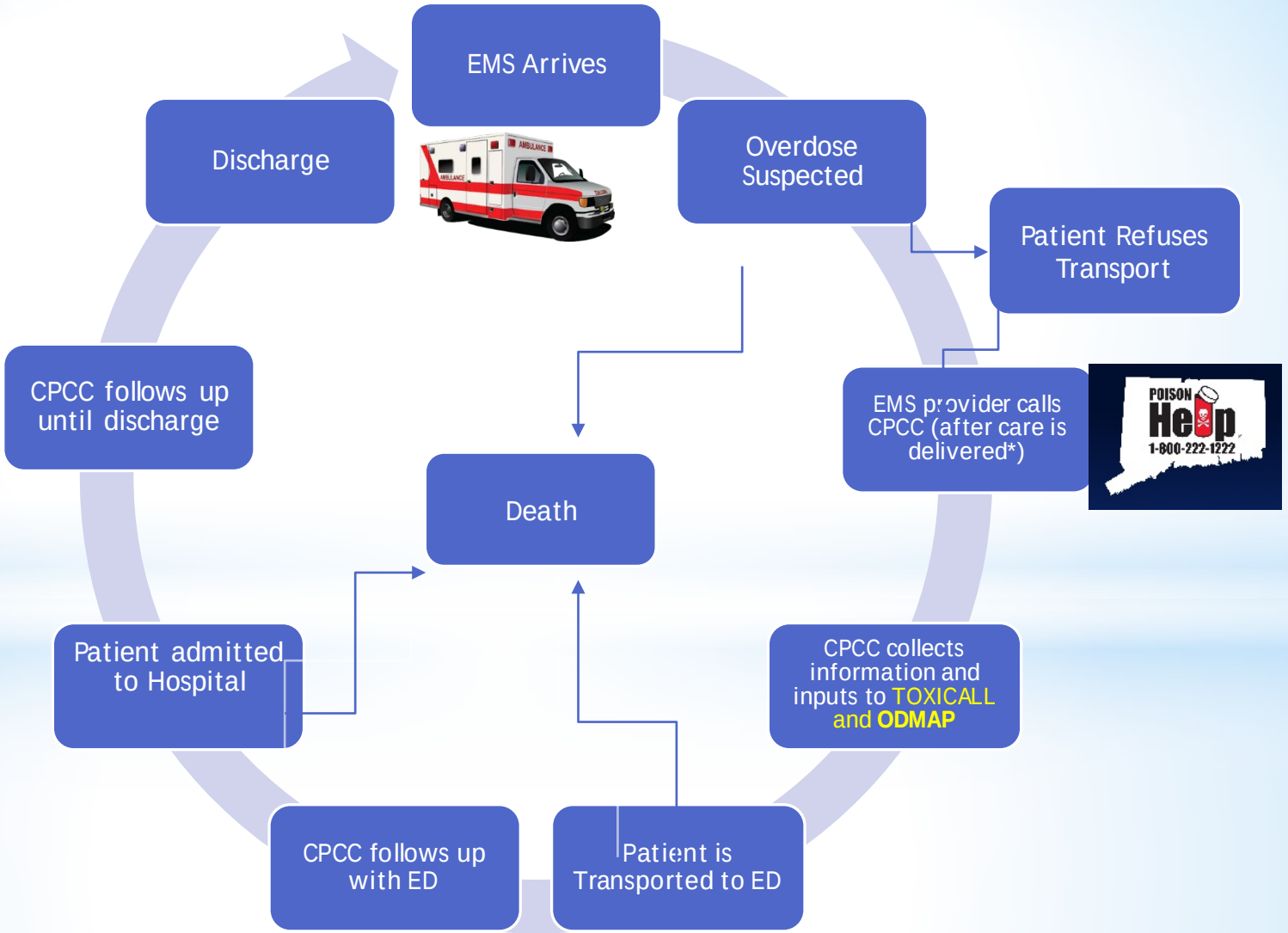
* Notification chain during anomalies/spikes.

Statewide Opioid Reporting Directive (SWORD)

* Connecticut implemented a new EMS data management project called the Statewide Opioid Reporting Directive (SWORD) in June 2019.

* The purpose of SWORD is to better understand opioid overdoses and identify prevention activities related to the opioid epidemic.

How is SWORD data collected?



EMS Data Sources

* TOXICALL and ODMAP are used as part of the SWORD project.
* TOXICALL captures detailed narratives of suspected opioid overdose scenes as reported by EMS personnel.
  * Managed by the Connecticut Poison Control Center (CPCC).
  * Focuses on suspected opioids as a primary substance but also includes cases where something may have been laced with an opioid.
* ODMAP captures addresses and basic details of suspected opioid overdose scenes.

EMS Data Sources (Continued)

* ImageTrend captures NEMSIS data from the electronic patient care records (ePCRs) EMS personnel complete for each patient they treat.
* ImageTrend is used to capture all suspected overdoses (opioid and not) that EMS responds to in ***near real time***.
  * Not part of the SWORD project but is used in conjunction with TOXICALL and ODMAP.
* Limited staff at CT DPH have access to all three systems; Local Health Departments (LHDs) and first responders have access to ODMAP.

EMS Data and Anomalies

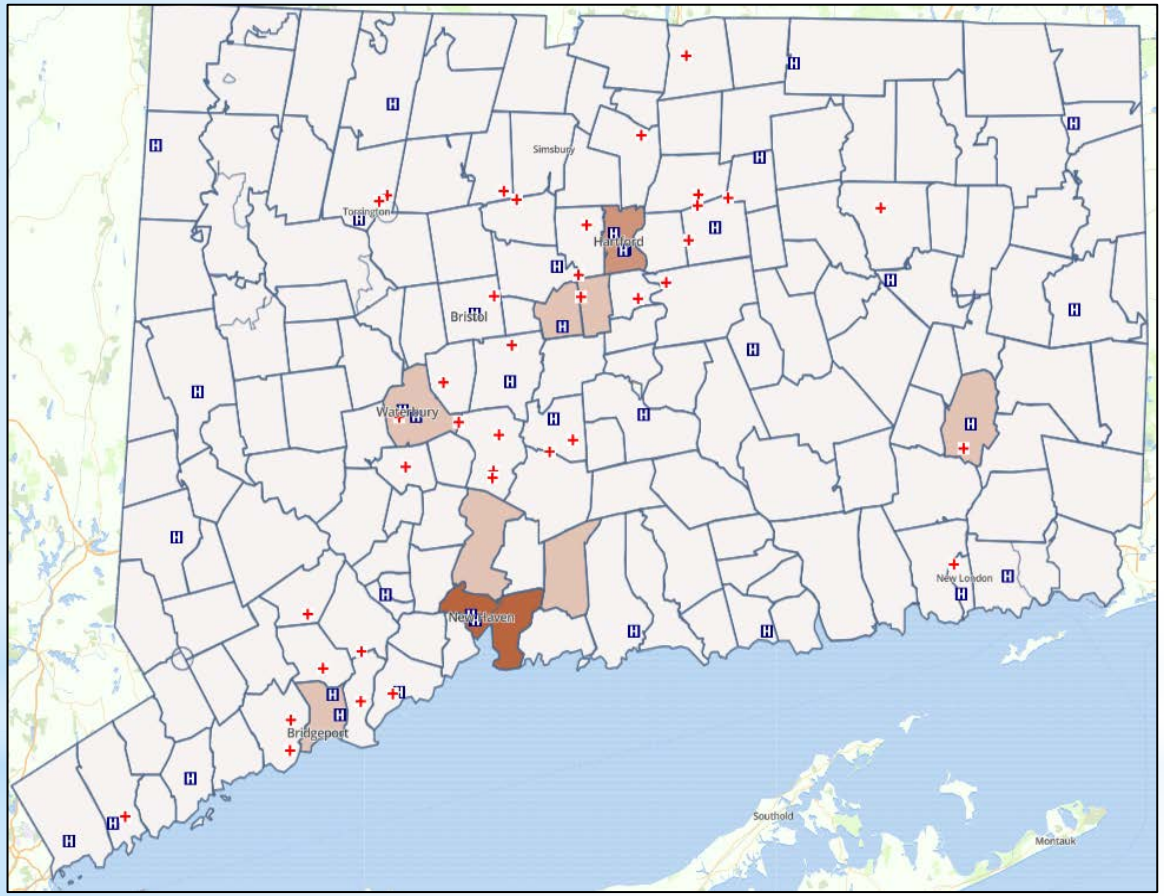
* ODMAP sends alerts when suspected overdoses reach a particular threshold set for a county.
  * AMR, CPCC enter fatal and non-fatal suspected overdoses into ODMAP, and the Office of the Chief Medical Examiner enters fatal suspected overdoses.
* When an alert comes through from ODMAP or EpiCenter, the process for going through EMS data is as follows:
  * Start with ODMAP for a visual of the suspected overdoses and who entered them.
  * Run the respective report in ImageTrend (suspected all drug overdoses or involving any opioid for that area) and reviewing the narratives.
  * Use ODMAP to look up specific cases in TOXICALL by their case #s for detailed narratives and any follow up while in the ED.
  * Information from the EMS data sources is used in conjunction with the ED data and any related cases from OCME to determine if something unusual is happening.

Future of EMS Data for Suspected Overdoses

* Continue using ODMAP, TOXICALL, and ImageTrend to investigate potential anomalies and spikes in near-real time.

* Link EMS records from ImageTrend with ED records using SAS when an anomaly or spike is occurring to have a set of records that include suspected overdose cases that refused transport, cases transported by EMS, and cases who went to the emergency department without EMS.

* Non-Fatal Suspected Drug Overdoses: Syndromic Surveillance (Epicenter)



38 Emergency Departments
37 Urgent Care Centers

* Date and Time
* DOB and Age
* Gender
* Resident Zip Code and County
* Facility and Facility County
* Race and Ethnicity
* Discharge ICD-10 Codes
* Disposition
* Chief Complaint
* Triage Notes

Note: Epicenter collects the same data fields as NSSP Essence.

* Non-Fatal *Suspected* Drug Overdoses

* Suspected Drug Overdose Classifiers (definitions) developed specifically for CT's overdose activity.
  * Suspected Drug Overdose with any substance
  * Suspected Drug Overdose Involving any Opioid
  * Suspected Drug Overdose Involving Heroin
  * Suspected Drug Overdose Involving any Stimulant
  * Suspected Intentional Drug Overdose

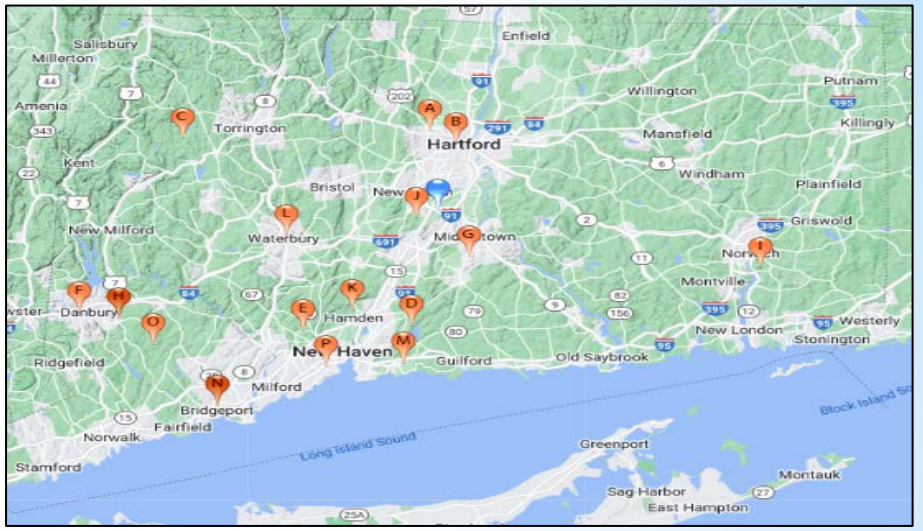
* Cases are identified by Epicenter by ICD discharge codes and key words or phrases in the chief complaint field.
  * "responded to Narcan"
  * "want to die"

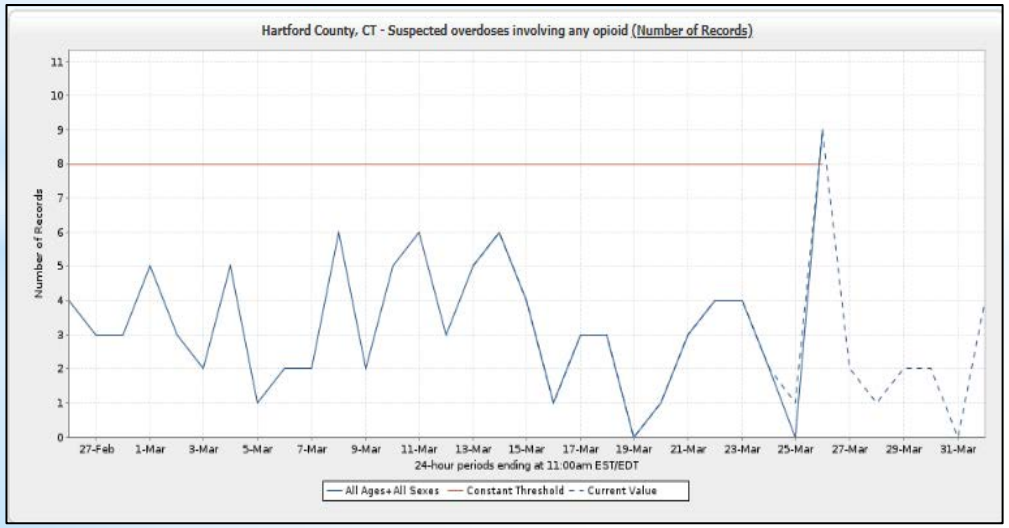
* Opioid and Heroin definitions are currently being updated to include key words and phrases from the triage notes.

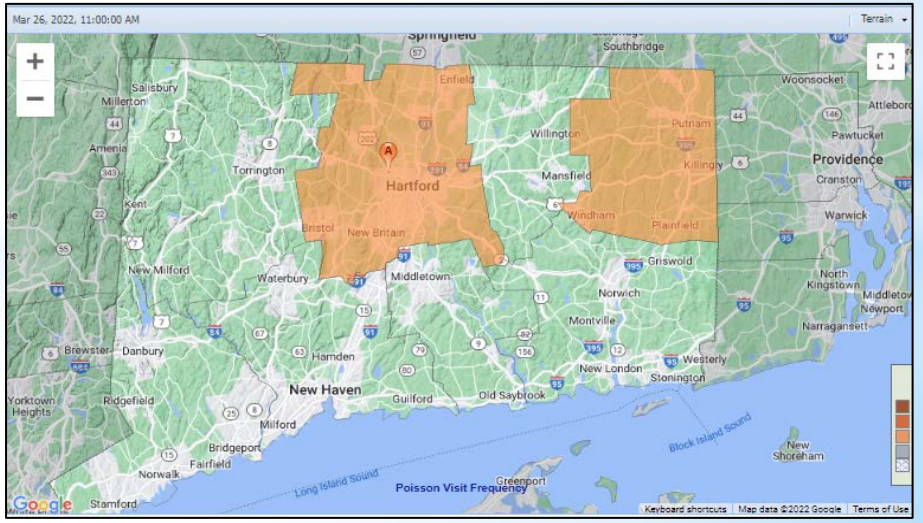
Note: restarting a pre-COVID program to collect samples from overdose patients in the ED for testing at the State Lab.

* Threshold Alerts

* Suspected Drug, Opioid, and/or Heroin Alerts (rolling 24-hours)
* Suspected Opioid in 0–17-Year-Old Children (Threshold =0)
* Suspected Poisoning in 0–17-Year-Old Children (Threshold = 1 every rolling one hour)







* Suspected Fatal Drug Overdoses: OCME

* Reviews detailed information on suspected fatal overdose victims as soon as they are available to the OCME.
  * Location
  * Patient history
  * Suspected substance(s)
  * Scenic evidence
* Notifies SWORD and OD2A epidemiologists of anomalies and/or spikes in fatalities.
* Provides a weekly report of suspected fatal overdoses for analysis.
* Pending threshold determinations for spikes.

* Data Linkage

- Data sources (Toxicall, ODMAP, ImageTrend, Epicenter, and the OCME) are manually linked (for now).
  - Data linkage is currently being explored through SAS programing
- When spikes and/or anomalies are detected from Epicenter, ODMAP, or the OCME, all data sources are investigated for public health action.
  - OD2A epidemiologists, EMS representatives, OCME, and NEHIDTA assist in investigation.
  - Data is reviewed together, when possible, but the designated Supervising Epidemiologist for the Injury and Violent Program makes the final determination on whether to issue an official public health alert.

* Public Health Alerts: Two-Tiered System

* Unofficial Alerts
  * Affected LHDs are notified of non-specific spikes in activity via email and phone calls.

* Official Alerts
  * Leadership is notified of the spike/anomaly.
  * Communications reviews and approves the official public health notice.
  * LHDs, local prevention teams, the Department of Mental Health Services and Addiction, EMS, NEHIDTA, SWORD, OCME, and Syringe Services are notified of the spike/anomaly.
    * Downstream notifications are followed by some agencies to alert local hospitals, local rehabilitation centers, and the public of the unusual overdose activity.

Examples of Recent Anomalies or Investigations

Opioid-Related Overdoses

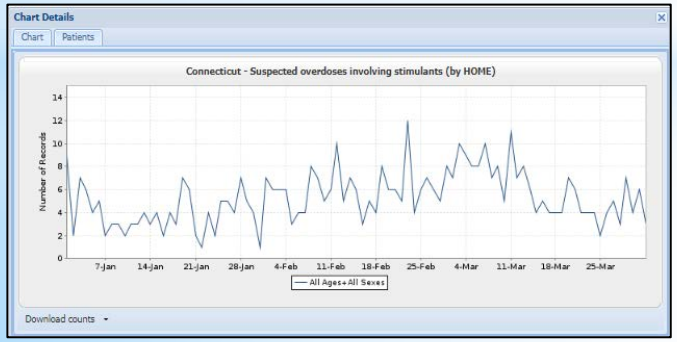
* Marijuana
* Cocaine
* PCP

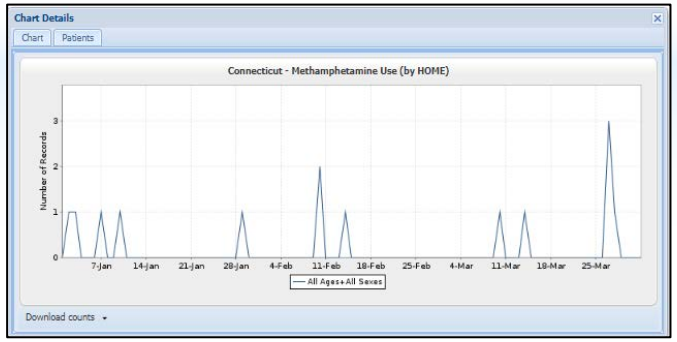
Non-Opioid Related Overdoses

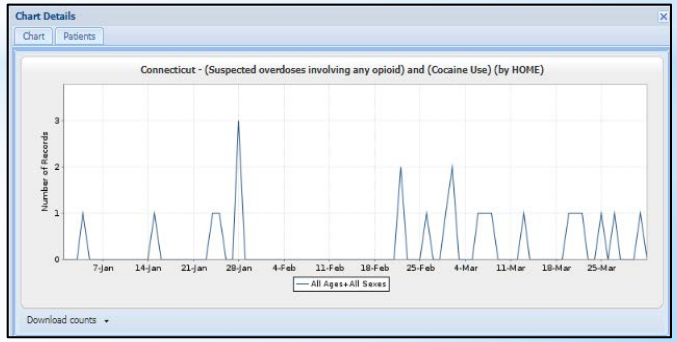
* Edibles
* Cocaine
* PCP
* Methamphetamines

Overdose Locations

* Hotels/Motels
* Shopping Malls
* Schools







Thank You!

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