BACKGROUND

In order to develop policies and programs that more effectively address opioid use risk in the City of Pittsburgh, improved data analysis with greater transparency is needed to enhance Public Safety response and empower community efforts to address the growing overdose crisis.

Using de-identified (HIPAA-compliant) data from the Pittsburgh Bureau of EMS, information regarding opioid overdose calls for service in the City of Pittsburgh are published to this publicly-available dashboard on a monthly basis. The dashboard includes the number of individuals who experienced an opioid overdose each month, neighborhood-level mapping, demographic information, and other statistics regarding care provided on-scene by Public Safety professionals. All data is from the electronic patient care report software (ePCR), emsCHARTS, which is used by EMS to document patient care.

Despite continued efforts from Public Safety professionals and other direct service providers, data from the CDC suggests that opioid overdose fatalities have accelerated during COVID-19, following a trend of increasing opioid overdoses which began prior to the pandemic. In response to the worsening crisis, the Office of Community Health and Safety is committed to utilizing insights gained from improved data analysis to inform progressive opioid overdose prevention strategies that seek to reduce harm associated with drug use, employ a person-first approach, and address social determinants of health.

Within the Office of Community Health and Safety, this work is led by the Overdose Prevention Program Coordinator in partnership with Pittsburgh EMS and the Allegheny County Health Department's CDC-funded Overdose Data to Action program, which aims to strengthen local capacity to address overdoses across the county. The City of Pittsburgh is among stakeholders partnering with ACHD through this county-wide program to monitor emerging trends to inform prevention activities that reduce harms associated with substance use.

WIDGET DESCRIPTIONS

[Month] Opioid Overdoses: Reflects the total number of patients who experienced an opioid overdose (fatal and non-fatal) in the City of Pittsburgh, for whom 9-1-1 was called. This number does not include overdose incidents for which 9-1-1 was not called. Cases are identified through the process described below.

Neighborhood Map: GPS coordinates of each call are processed by software that identifies the neighborhood in which the EMS call took place.

Race/Ethnicity: The patient's race/ethnicity is reported by the EMS provider and is collected from the ePCR.

Gender: The patient's gender is reported by the EMS provider and is collected from the ePCR.

Naloxone Administered By: Describes who administered naloxone to the patient. Total count may be larger than the total number of patients who experienced an overdose as patients may receive multiple doses of naloxone from different providers. The term "Bystander" describes anyone on-scene who is not a first responder (i.e. Police, Fire, and/or EMS).

Transported to Hospital: Describes the number of patients who were transported to the hospital via ambulance versus the number of patients who declined transport to the hospital via ambulance.

Age: Histogram of all patients' ages in years as reported by the EMS provider.

Overdose per Council District: GPS coordinates of each call are processed through software that identifies the Pittsburgh City Council District in which each call took place.

Overdose per Police Zone: GPS coordinates of each call are processed through software that identifies the Pittsburgh Police Zone in which each call took place.

DATA COLLECTION PROTOCOL

- Each week, the emsCHARTS custom report function is used to identify EMS calls that meet the following inclusion criteria:
    - Naloxone administered by EMS, fire, police, other provider, or layperson
    - Patient required airway management
    - Patient required positive pressure ventilation
    - Patient does not have the capacity to refuse care following opioid use
- This report identifies relevant calls by performing:
    - A targeted search for signs, symptoms, and interventions associated with opioid overdoses

- A keyword search for the following:
    - "Narcan"
    - "naloxone"
    - "heroin"
    - "opioid"
    - "opiate"
- An additional manual search of all calls for service categorized (based on the EMS provider's clinical impression) as the following:
    - "Drug Overdose"
    - "Intoxication - Drugs or EtOH"
    - "Poisoning/drug ingestion"
- After all relevant calls are identified, the data is extracted from the ePCR and uploaded to Microsoft Excel where is it processed and analyzed
- Each individual ePCR is reviewed in detail to ensure the inclusion criteria are met
- The information collected is broken up into the following categories:
    - Patient demographic information (age, gender, race, Pittsburgh resident)
    - Dispatch information (EMS call mapping, date/time dispatched, dispatch priority, time spent on scene
    - Metrics of patient assessment (level of consciousness, Glasgow Coma Score, clinical impression)
    - EMS provider interventions (medication administration, IV access, naloxone administration)
    - Patient disposition (transport destination, transport refusal)
- The data is then used to population the Opioid Overdose Dashboard and is also used to create a weekly Opioid Overdose Report which is distributed to strategic partners