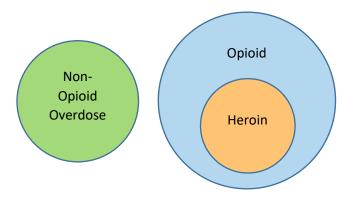


## Biospatial Summary of Virginia Overdose Case Definitions for Emergency Medical Services (EMS) v2.0 (April 15, 2019)

**Case Definition**: Using data from the patient care narrative (eNarrative.01); provider's primary impression (eSituation.11); medication given (eMedications.03); and response to medication (eMedications.07), the Virginia Office of EMS groups overdose related EMS responses into three categories: Suspected Heroin Overdose, Suspected Opioid Overdose, and Suspected Other (non-Opioid) Overdose. The relationship between these categories is illustrated in the Venn diagram below.



## **Variable Definitions**

- NI: Naloxone improvement
  - 1. True if at least one instance of improved response to naloxone administration; False otherwise
  - 2. Note that NI=False if:
    - medication administration information is not available in the record
    - naloxone administration was not documented
    - naloxone administration was documented but with unknown response to medication
- NUW: Naloxone unchanged/worse
  - 1. True if at least one instance of unchanged/worse response to naloxone administration; False otherwise
  - 2. Note that **NUW**=False if:
    - medication administration information is not available in the record
    - naloxone administration was not documented
    - naloxone administration was documented but with unknown response to medication
- Heroin indicators
  - 1. HI: True if primary impression indicates heroin overdose as follows; False otherwise.
    - ICD-10 code starts with:
      - T40.1 (Poisoning by and adverse effect of heroin)
  - 2. HN: True if narrative indicates heroin overdose as follows; False otherwise
    - Includes any of "heroin" (and common misspellings), "speedball", "spheroin"

- **OPI**: Opioid indicators in primary impression. True if primary impression indicates opioid overdose as follows; False otherwise.
  - 1. ICD-10 code starts with:
    - F11 (Opioid related disorders)
    - T40.0 (Poisoning by, adverse effect of and underdosing of opium)
    - T40.2 (Poisoning by, adverse effect of and underdosing of opioids)
    - T40.3 (Poisoning by, adverse effect of and underdosing of methadone)
    - T40.4 (Synthetic narcotics)
    - T40.6 (Poisoning by, adverse effect of and underdosing of other and unspecified narcotics)
- **ODI**: General overdose indicators in primary impression. True if primary impression indicates general overdose as follows; False otherwise.
  - 1. ICD-10 code starts with:
    - F14 (Cocaine related disorders)
    - T40.5 (Poisoning by, adverse effect of and underdosing of cocaine)
    - T40.7 (Poisoning by, adverse effect of and underdosing of cannabis)
    - T40.8 (Poisoning by and adverse effect of lysergide [LSD])
    - T40.9 (Poisoning by, adverse effect of and underdosing of other and unspecified psychodysleptics)
    - Other codes in the range T36-T50 that are not included elsewhere
    - Other codes in the range F12-F16 and F18-F19 that are not included elsewhere

## **Overdose Classification Logic**

