

# NYC DEPARTMENT OF HOMELESS SERVICES

## Mortality Data

Office of the Medical Director

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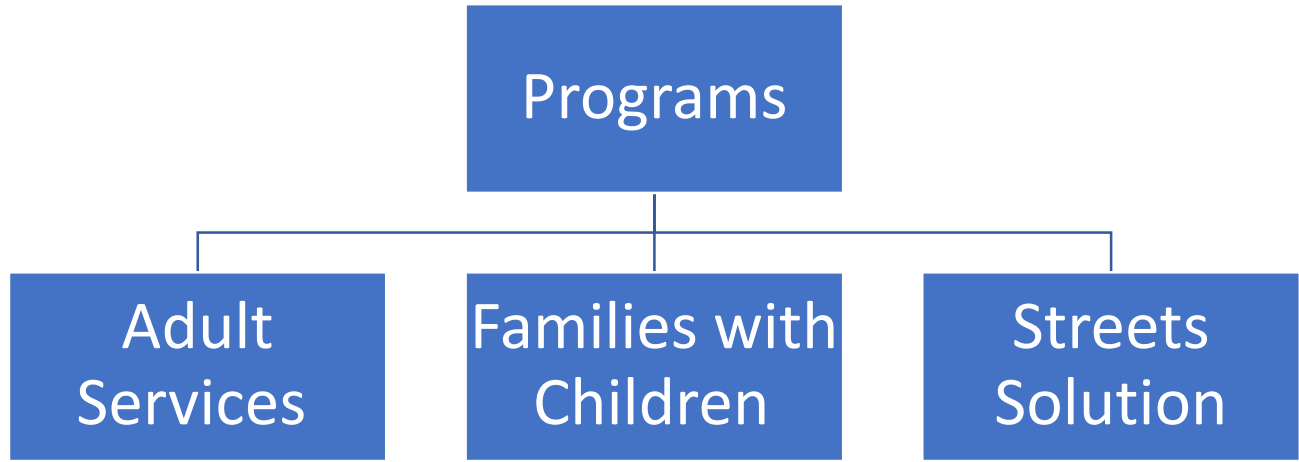
Heather Mavronicolas, PhD, MPH | Director, Health Program Development & Evaluation

*June 12<sup>th</sup>, 2019*

# Outline

1. Overview of DHS shelter system
2. Evolution of the mortality report
3. Report overview
4. Definitions of homeless deaths
5. Data sources and responsible parties
6. Findings
7. How are we using the mortality data?
8. Limitations
9. Questions

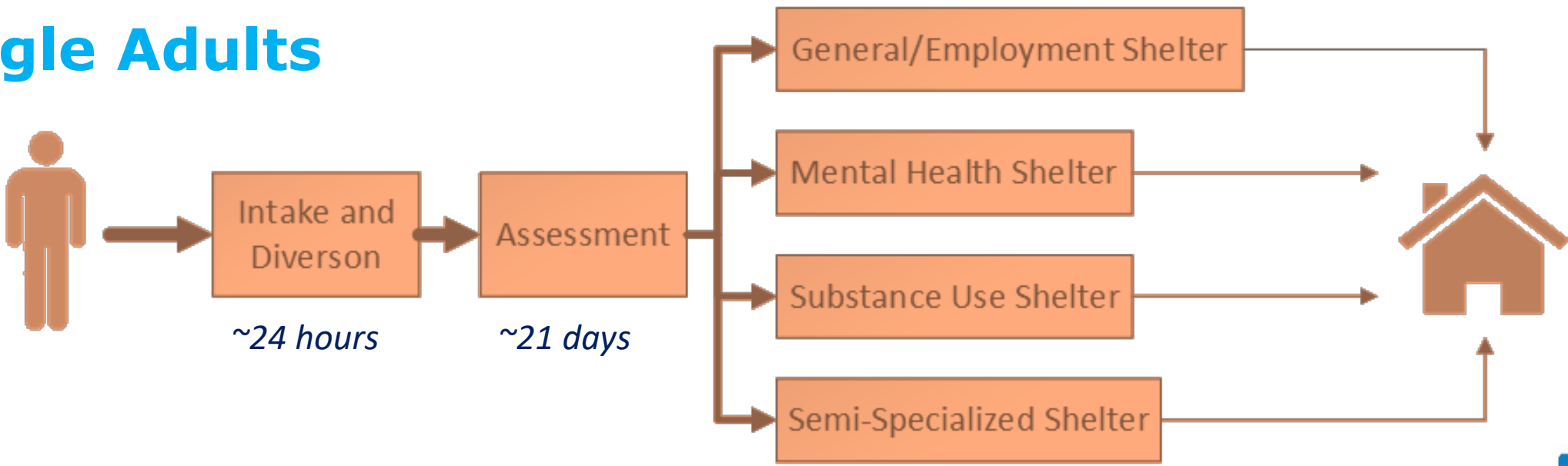
# DHS Shelter System



Shelter	Street
58,199 [5.20.19]*	3,588 [1.29.19]
133,412 [2018]	

*\*Point in time*

## Single Adults



# Overview of DHS Shelter Population, May 2019

## Shelter Population by Program

36,693

Families with Children



16,201

Single Adults



5313

Adult Families



## Population in Families with Children Shelter

15,851

Adults



20,842

Children



**The Face of Homelessness in NYC is a Child**

# Evolution of the Homeless Mortality Report

- 2005: NYC Council passes Local Law 63 (LL63)
- 2012: NYC Council extends reporting on homeless deaths (LL7)

The law requires the City of New York to track & report deaths of persons experiencing homelessness in the city

# What Does the Report Include?



- Demographic characteristics
- Location of death
- Cause of death
- Shelter status
- Trends in mortality

# How Do We Define a Homeless Decedents?

A person who at the time of death did not have a known street address of a private residence at which he or she was known or reasonably believed to have resided



## Sheltered decedent

DHS shelter/safe haven resident at time of death.

Currently not a resident of shelter but intended to come back to the shelter within 30 days

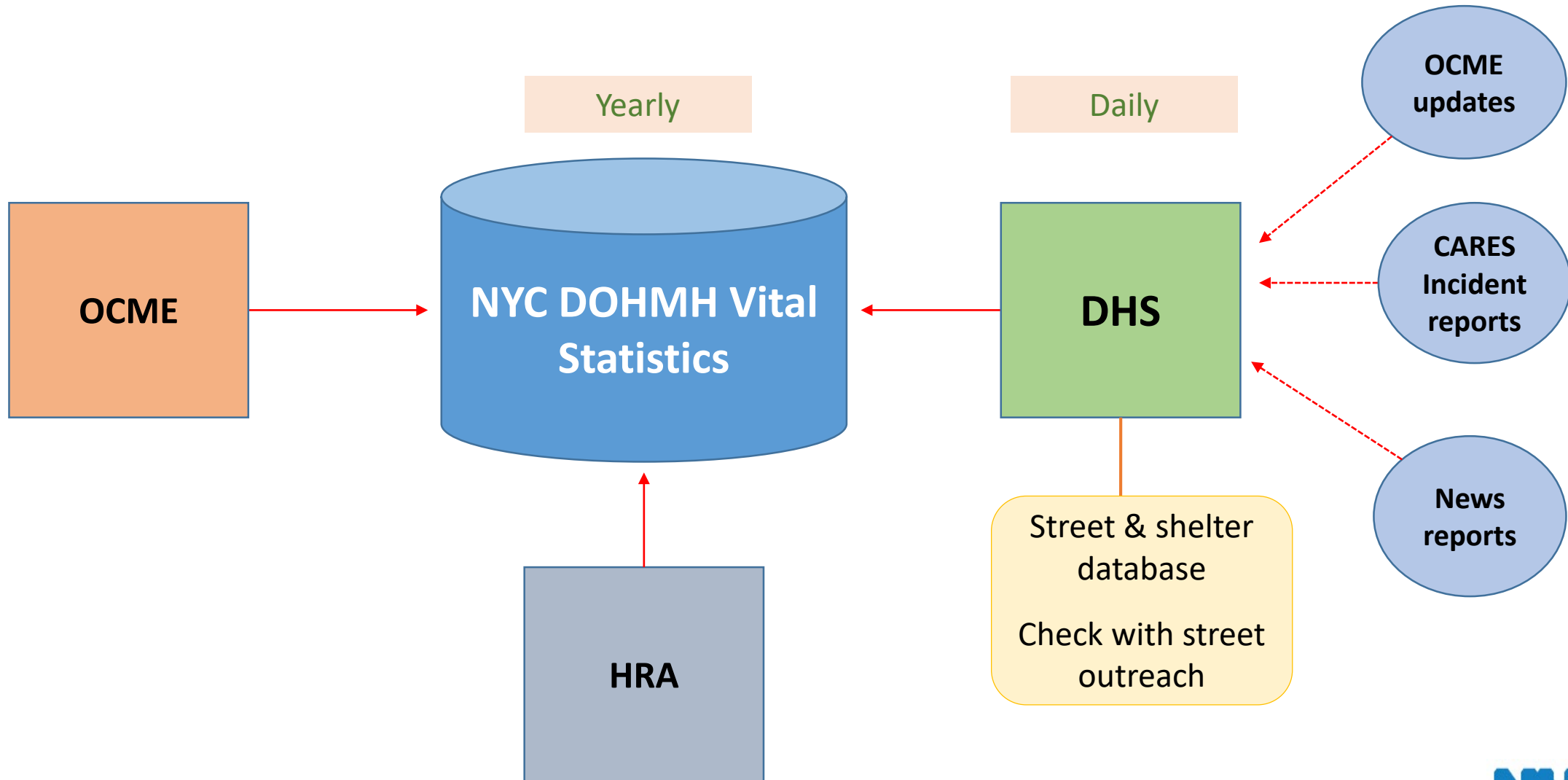
## Non-Sheltered decedent

Homeless & was not a DHS shelter/Safe Haven resident at time of death

Homeless & known to outreach team/drop-in-center/respice center

OCME indicates a person is homeless based on their investigation

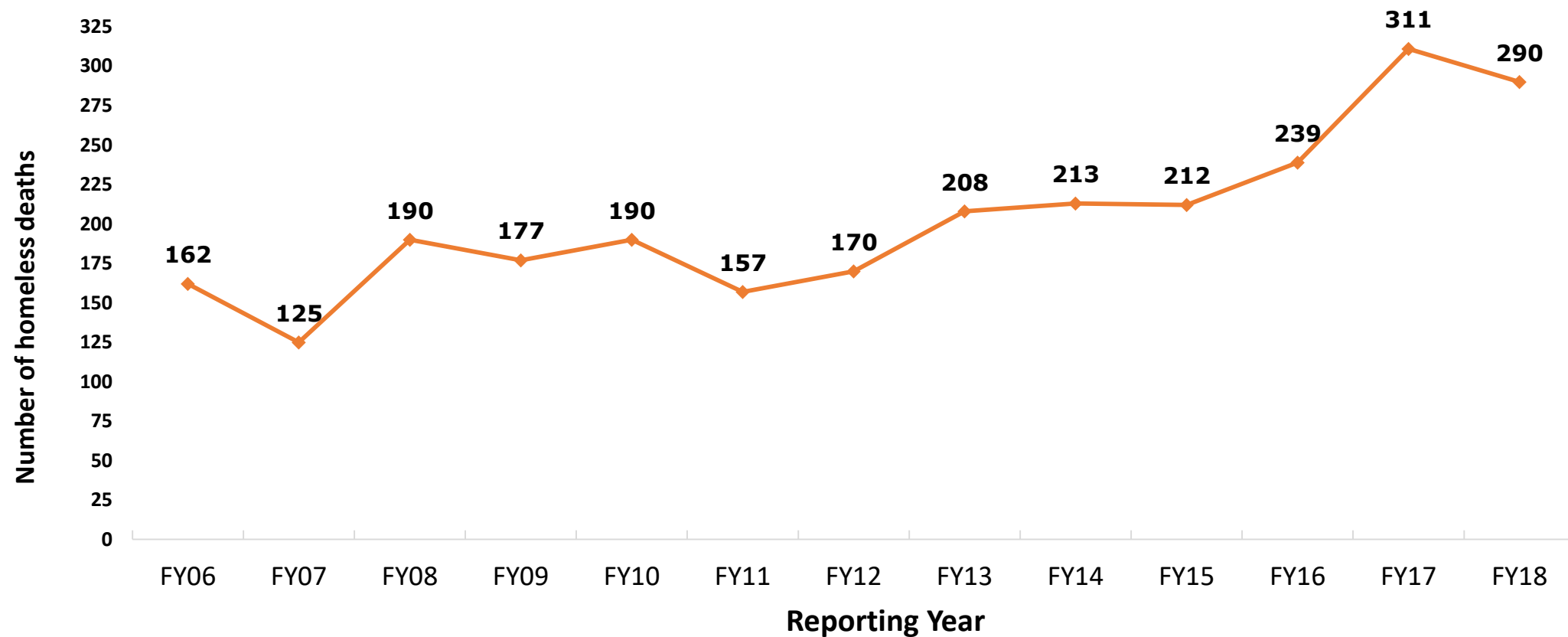
# How Do We Get Homeless Mortality Surveillance Data?





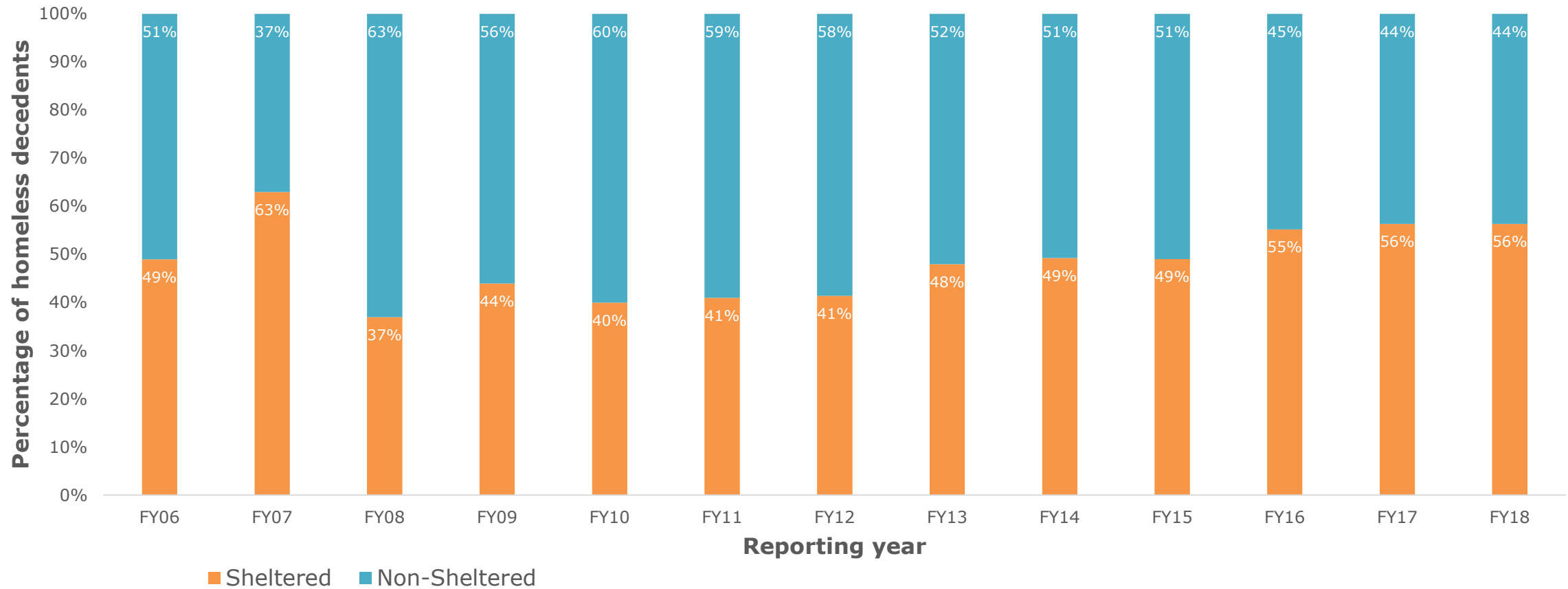
# Findings

# Trends in Homeless Deaths by FY, 2006-2018



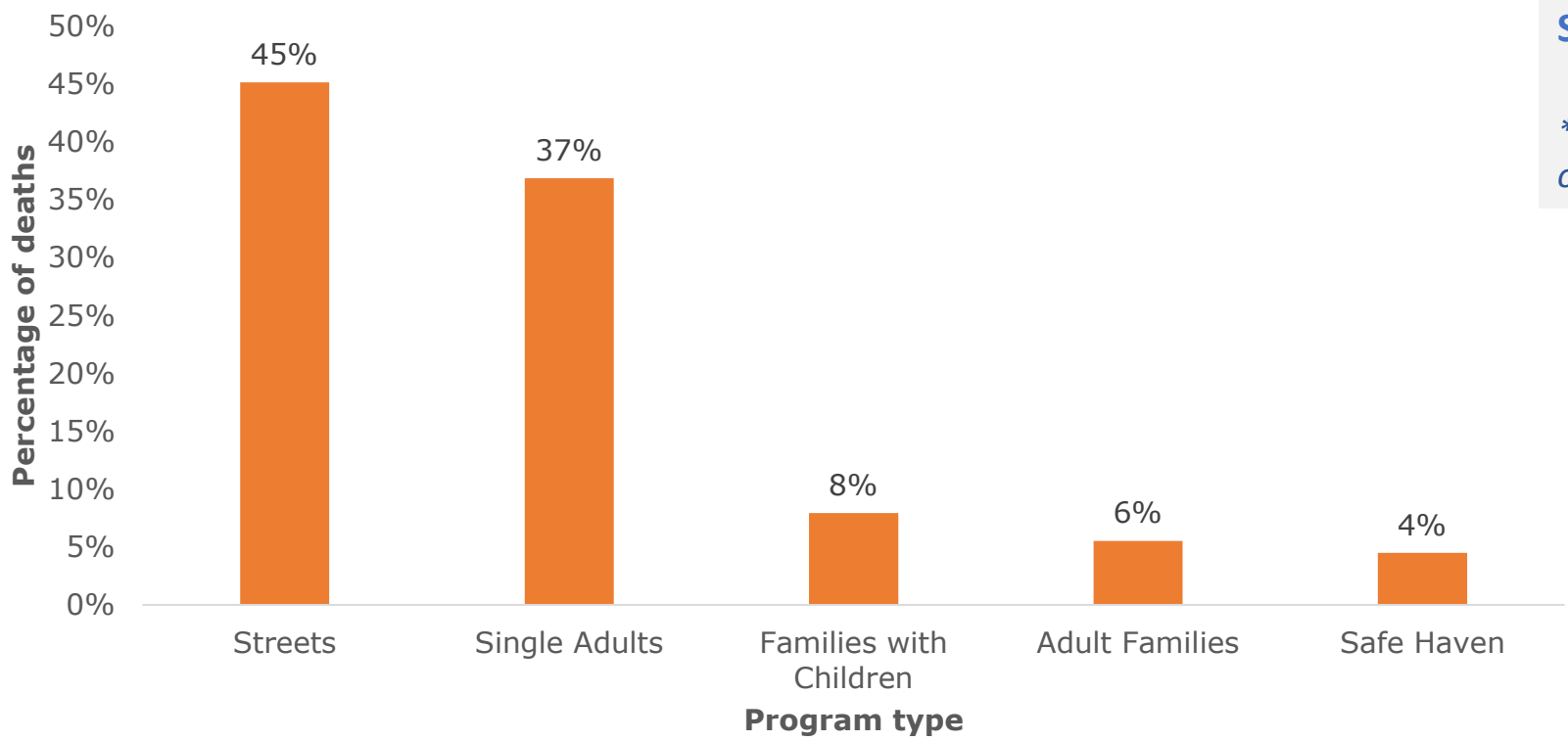
**The number of homeless deaths decreased by 7% in FY 18, compared to FY 2017**

# % of Deaths Reported by DHS and OCME by Shelter Residency Status, FY 2006-2018



The number of homeless deaths among shelter residents is higher than non-sheltered residents

# Deaths by DHS Services, FY 18 (N=290)



**Street Homeless known to DHS\*: 36%**  
*\*In data management system or known to street outreach*

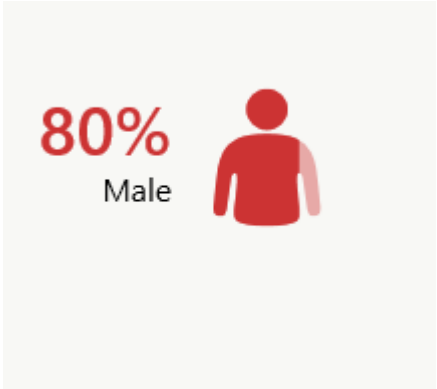
**Among shelter residents, homeless deaths are highest among single adult shelter residents**

# Deaths by Demographic Characteristics, FY 18

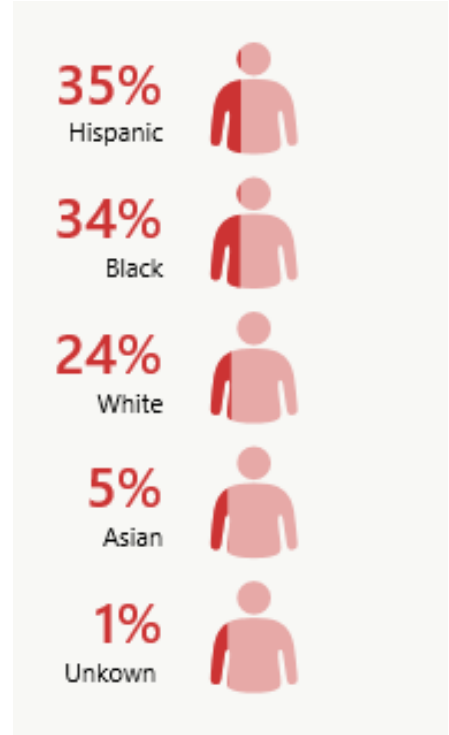
## Age group



## Sex

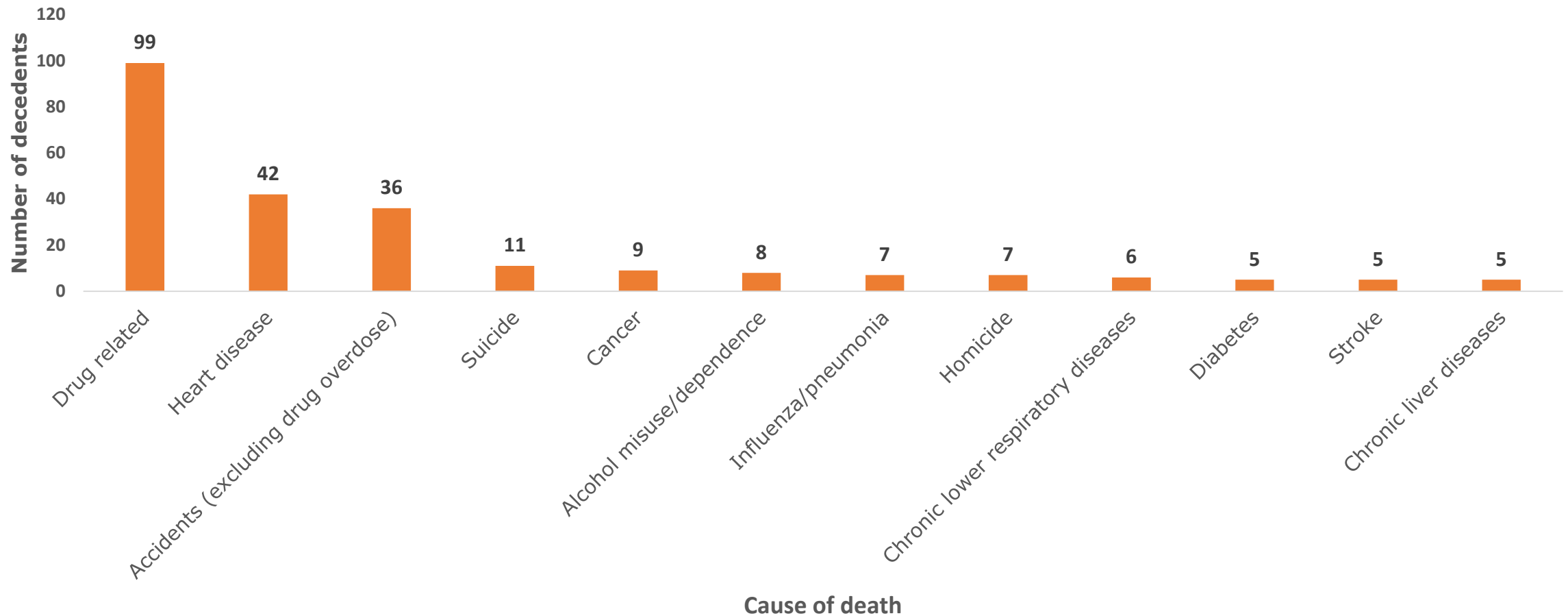


## Race/ Ethnicity



The majority of deaths were among males (80%), Hispanics (35%) and decedents between 45-64 years (54%)

# Top 10 Leading Causes of Death, FY 18 (N=290)



**Among shelter and non-sheltered decedents, leading cause of death were drug-related**

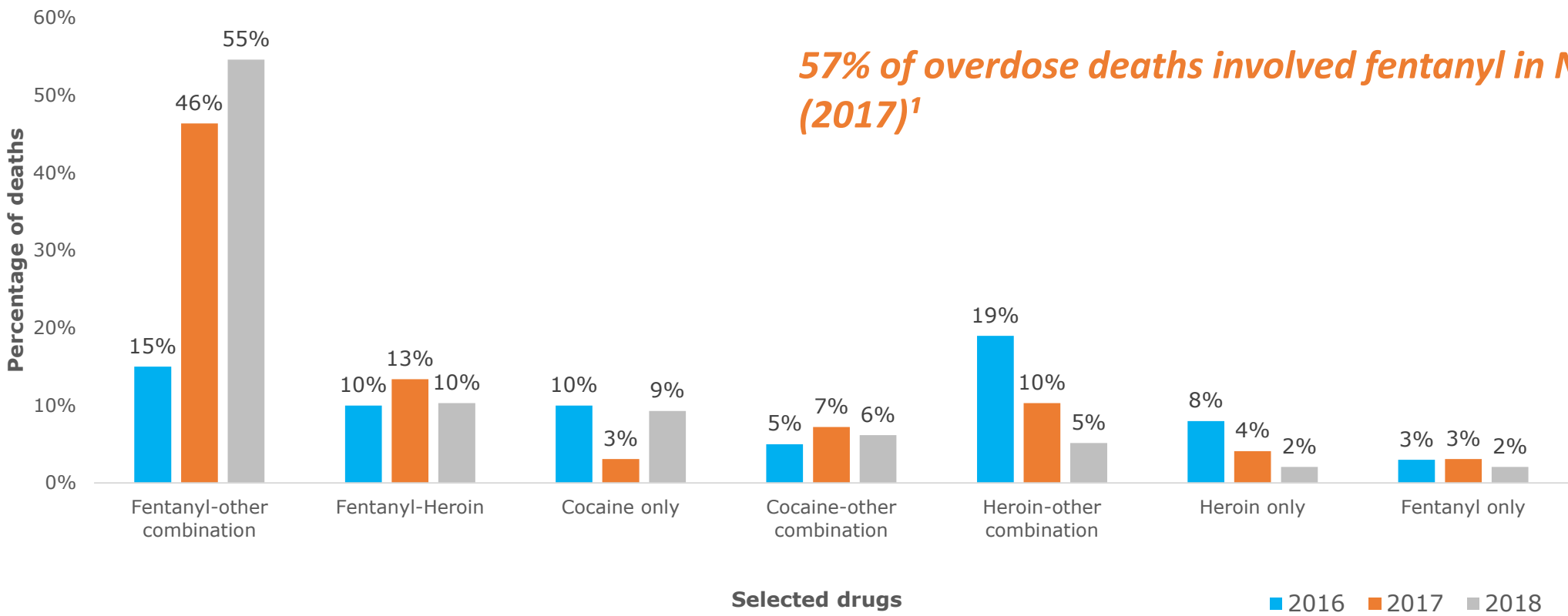
- Deaths related to heart disease decreased 21%, compared with FY 17
- Deaths related to drug use decreased by 4%, compared with FY 17

# Crude Death Rate (per 100,000 population) by Leading Cause of Death in NYC & Shelter Population

Rank	Leading cause of death	Shelter FY 18	NYC 2016
1	Heart disease	20.2	201.0
2	Cancer	2.2	158.4
3	Influenza and pneumonia	3.7	23.6
4	Cardiovascular disease (stroke)	2.2	21.6
5	Diabetes	2.2	21.0
6	Chronic lower respiratory disease	1.5	19.5
7	Drug related	47.2	17.5
8	Hypertension	0.7	13.2
9	Alzheimer's disease	0.7	12.9
10	Accident	10.5	11.6

**For shelter population, the crude death rate is lower for all causes of death except for drug related deaths, compared to NYC population**

# Drug Overdose Deaths by Selected Drug(s) Involvement, 2016-2018



*57% of overdose deaths involved fentanyl in NYC (2017)<sup>1</sup>*

**In 2018, Fentanyl alone or in combination with other drugs accounted for 67% deaths among persons experiencing homelessness**

<sup>1</sup> Brezin CC, Nolan ML, Forshay JB, Paone D. Overdose Deaths Involving Fentanyl and Fentanyl Analogs — New York City, 2000–2017. MMWR January 18, 2019; 68 (2).

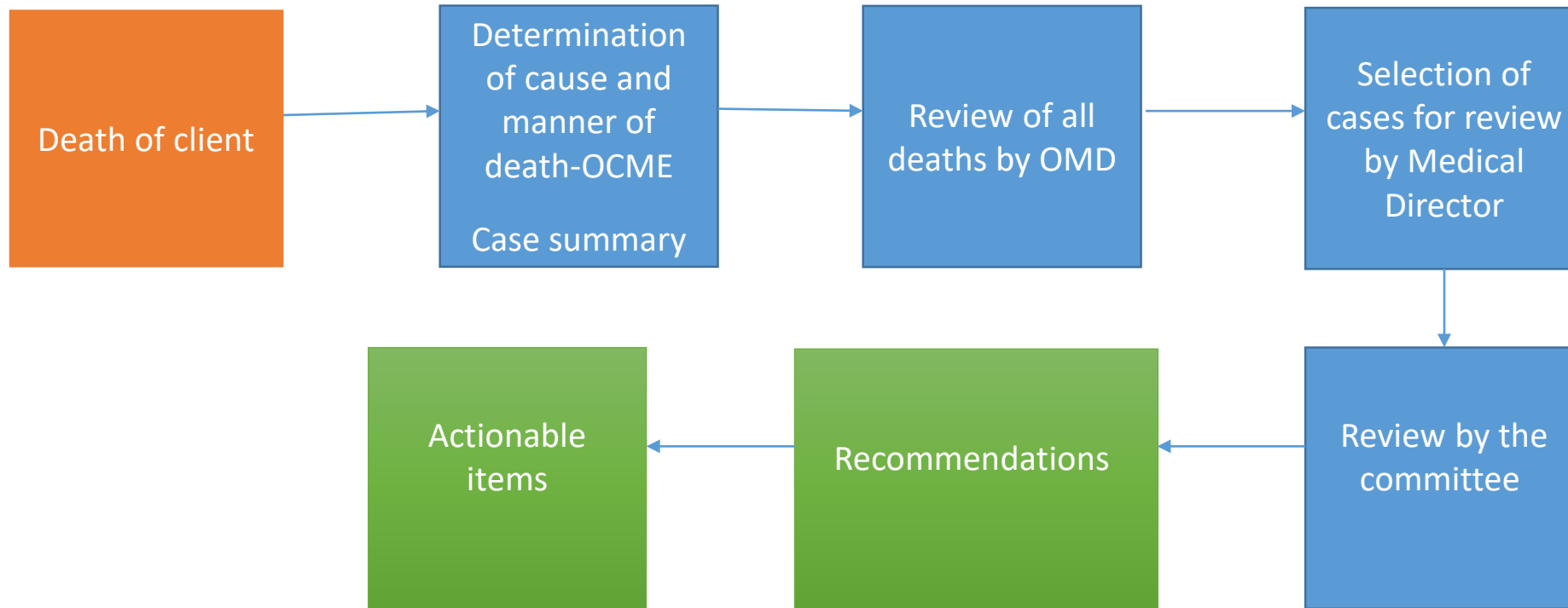


# Use of Mortality Report/Data

- Epidemiologic patterns
- Establish top causes of death
- Overdose prevention
- Identify preventable deaths
- Quality improvement

# Establishment of Mortality Review Committee

- Goal: Review selected deaths in-depth



# Establishment of Mortality Review Committee

- Activities:
  - Selection criteria
  - Quarterly meeting of leadership and OCME
  - In-depth review and identify opportunities for prevention

INCLUSION CRITERIA	EXCLUSION CRITERIA
1. Premature natural death (< 65 years) which is <ul style="list-style-type: none"> <li>• Unexpected</li> <li>• Unexplained</li> <li>• Under unusual circumstances - time of the day, location</li> <li>• No history of medical or mental health condition</li> <li>• Unusual cause of death reported- for example epilepsy</li> </ul>	1. Natural cause of death: <ul style="list-style-type: none"> <li>• Cancer</li> <li>• CVD/stroke</li> <li>• Kidney failure</li> <li>• Liver Cirrhosis</li> </ul>
2. Overdose death, suicide, homicide, violence related	2. Death of a person ≥ 65 years
3. Children <18 years who are not known to be medically fragile or terminally ill	3. Motor vehicle or other transport related accident
4. High profile cases	
5. Deaths which were potentially preventable based on known circumstances. For example, if a client was not given naloxone for an observed overdose	
6. Cases requested by review team members	

# Use of Mortality Review Committee

- Safe sleep
- Suicide prevention
- Health promotion/care coordination guidance
- Improve client case management system (CARES)

## Completed



- Infant safe sleep policy recommendations
- Overdose screening questions
  - Created alerts for naloxone training & linking client to services

## Work in progress



- Standardized tools for collecting medical & behavioral health data
- Suicide pre-screening questions & alert
- Suicide prevention policy

# Overdose Prevention Response

- Implemented systematic naloxone training at all shelters in late 2016  
All shelters had staff trained on all shifts by 12/2016
- Implemented substance use & overdose response policy in April 2018
- With a train-the trainer model, trained, in 2018:  
Staff: 4,088  
Client: 4,313
- Naloxone kits dispensed: 15,975
- Naloxone administrations in shelter: 579  
Reversals after naloxone administration for potential overdose: 97%

**Overdose deaths plateaued since 2017**

# Infant Safe Sleep

- Identified unsafe sleep practices in certain deaths
- Developed multi-pronged infant safe sleep initiative:
  - Advisory letter for shelter providers
  - Educational materials for providers and parents
  - Purchased & offer safe sleep kits to families with infants, with:
    - Pack-n-play
    - Wearable blanket
- In collaboration with NYC Department of Health & Mental Hygiene and the Administration for Children Services, train parents & staff on infant safe sleep practices

# The Mortality Report Does Not Include:

- Individuals that die
  - Outside NYC
  - In a hospital and they are not known to DHS

# Questions?

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