

# Understanding Child Injury Deaths – New York City Child Fatality Review Advisory Team Annual Report 2018

## About This Report

Local law 115 of 2005 (and its extension of 2012) requires the New York City (NYC) Department of Health and Mental Hygiene (DOHMH) and the Child Fatality Review Advisory Team it chairs to produce an annual report on injury-related child fatalities in NYC. The report features the most current data on injury-related deaths among children **ages 1 to 12 years** and closes with recommendations for preventing child injury deaths in NYC.

Data and implications for prevention are presented in five sections:

- **Section I** examines child injury fatality rates over time a ten-year period and compares them with national data. The most current data are for 2016.
- **Section II** describes the demographic characteristics of NYC’s child injury fatalities, pooling data from 2009 to 2016 to stabilize small counts and to allow for reliable statistical description. Findings are organized by injury intent (*see definitions below*).
- **Section III** summarizes child injury deaths from 2009 to 2016 by location of the injury and by injury intent, and presents the leading causes where the location of the fatal injury was the home.
- **Section IV** outlines strategies for continued success in preventing child injury deaths in NYC.

### IMPORTANT DEFINITIONS

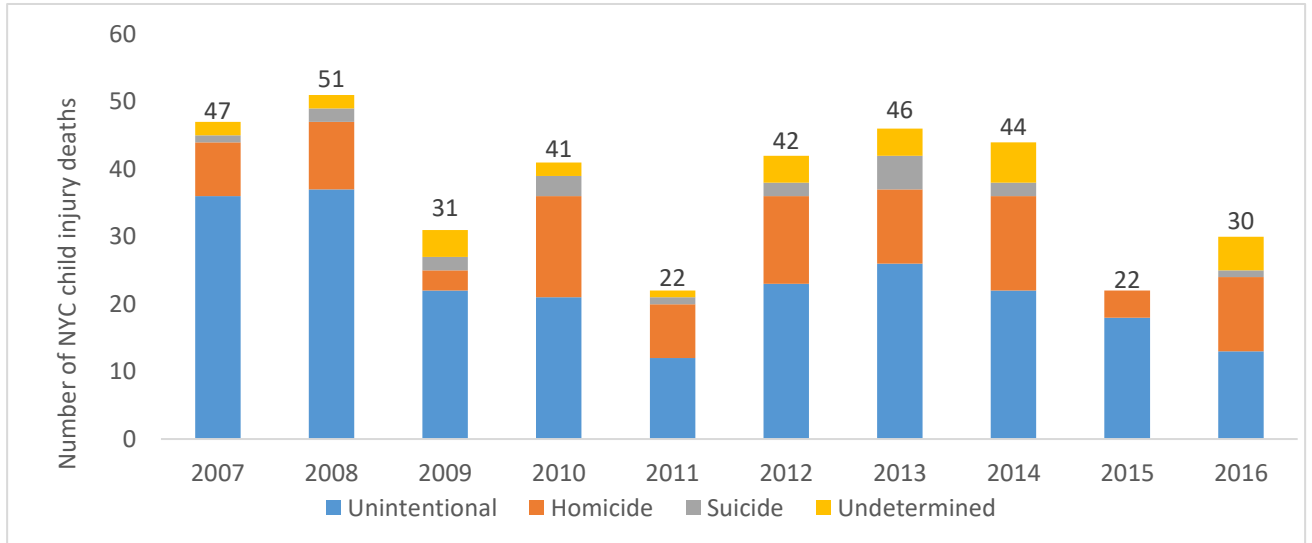
The intent of actions that lead to injury deaths:

- **Unintentional** – Injury death that occurred without intent to cause harm, also known as “accident.”
- **Intentional** – Injury death that occurred with the intent to cause harm. Intentional deaths are further classified as:
  - **Homicide** – Intentional death resulting from injuries inflicted by another person.
  - **Suicide** – Intentional injury death resulting from self-harm.
- **Undetermined** – Injury death for which the intent cannot be determined.

## SECTION I: Trends and Comparison with National Data

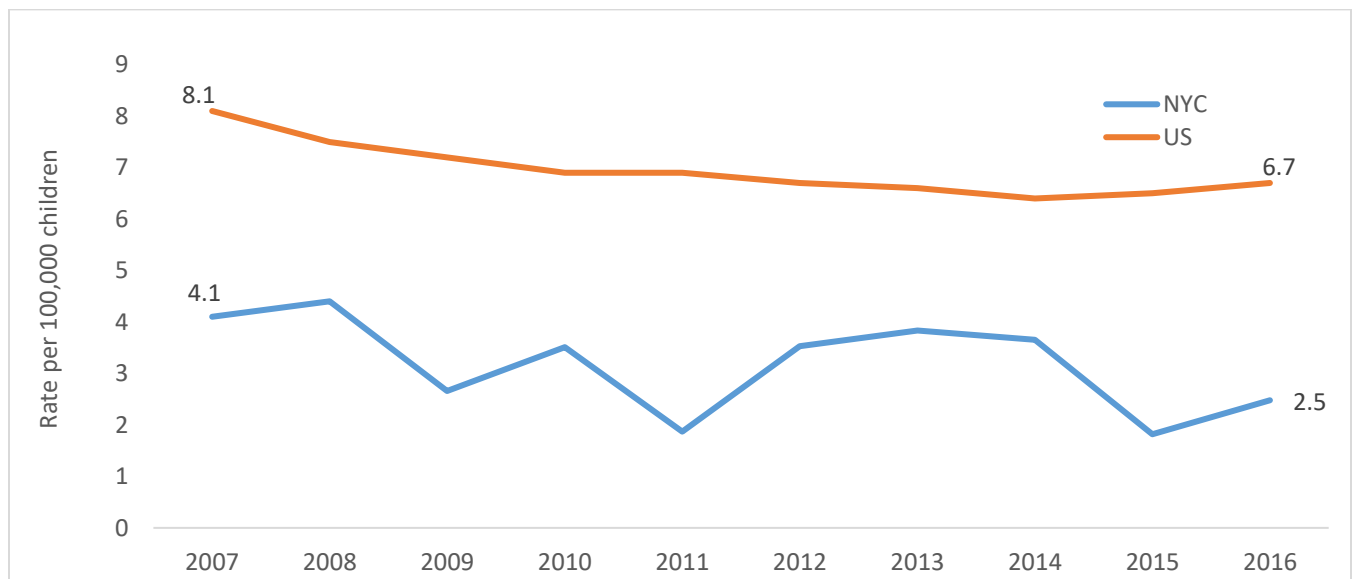
- The number of injury deaths among NYC children declined from 47 in 2007 to 30 in 2016, corresponding to a rate of 4.1 to 2.5 per 100,000 children respectively.
- NYC’s injury death rates among children ages 1 to 12 years have been consistently lower than national rates. The general decline in NYC mirrors national patterns.
- Out of the 30 injury deaths in 2016, 13 were unintentional, 12 were homicides and suicides, and 5 were of undetermined intent.

### Yearly numbers of injury deaths among NYC children ages 1 to 12 years by intent from 2007 to 2016



Source: DOHMH Bureau of Vital Statistics

### Trend in injury death rates among children ages 1 to 12 years, NYC vs US from 2007 to 2016

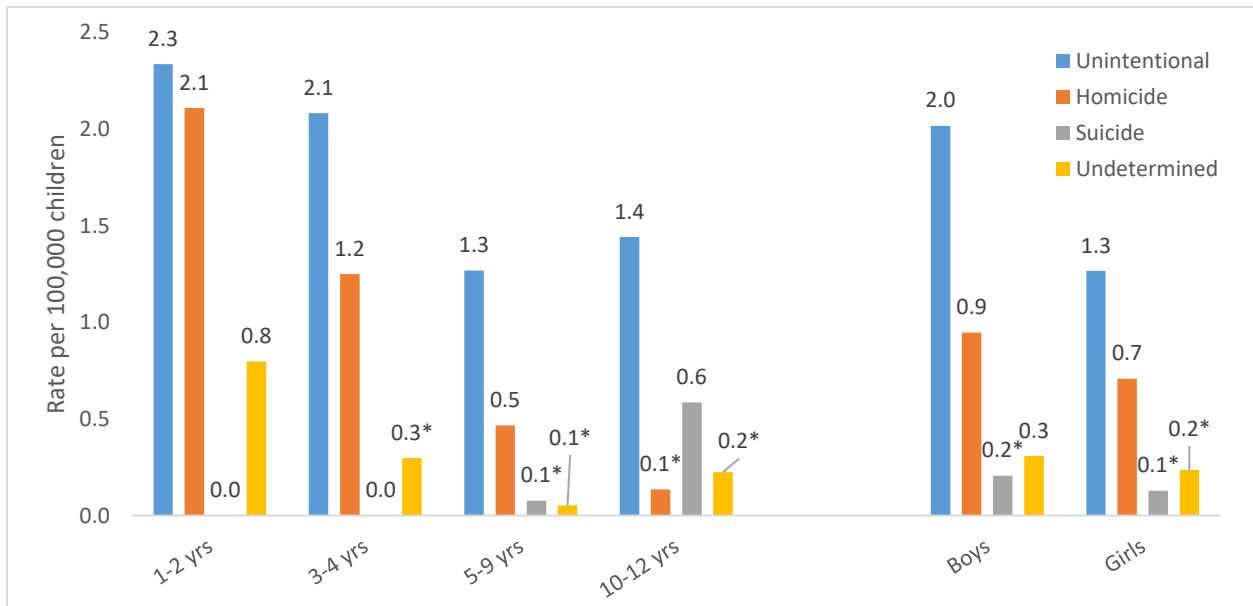


Sources: DOHMH Bureau of Vital Statistics and DOHMH Population estimates updated 2015  
 CDC WONDER accessed April 2017

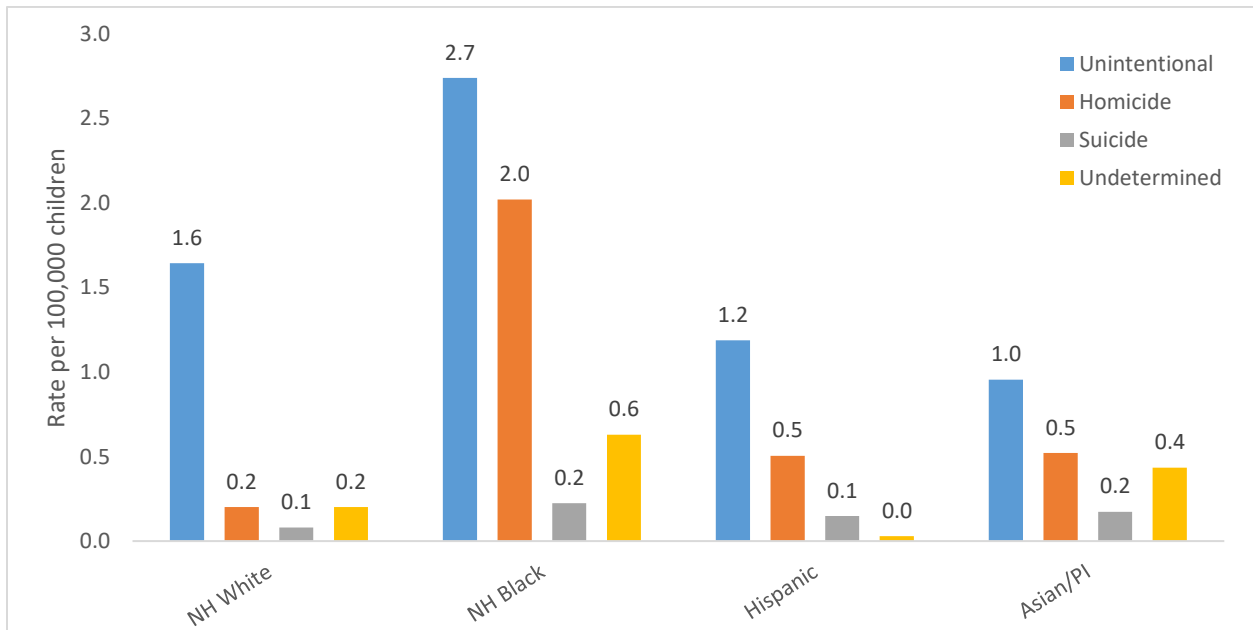
## SECTION II: Demographics of child injury deaths

- Between 2009 and 2016, there were a total of 278 injury deaths among NYC children ages 1 to 12 years. Of those 278 deaths, 56% (N=157) were unintentional, 28% (N=79) were homicides, 6% (N=16) were suicides, and 9% (N=26) were deaths of undetermined intent.
- In NYC, fatal injuries disproportionately affect younger children (ages 1-4), boys, Black children, children living in the Bronx, and children living in high poverty areas. Poverty is measured at the neighborhood level.

### Injury death rates among children ages 1-12 years by intent and by age and gender, 2009-2016



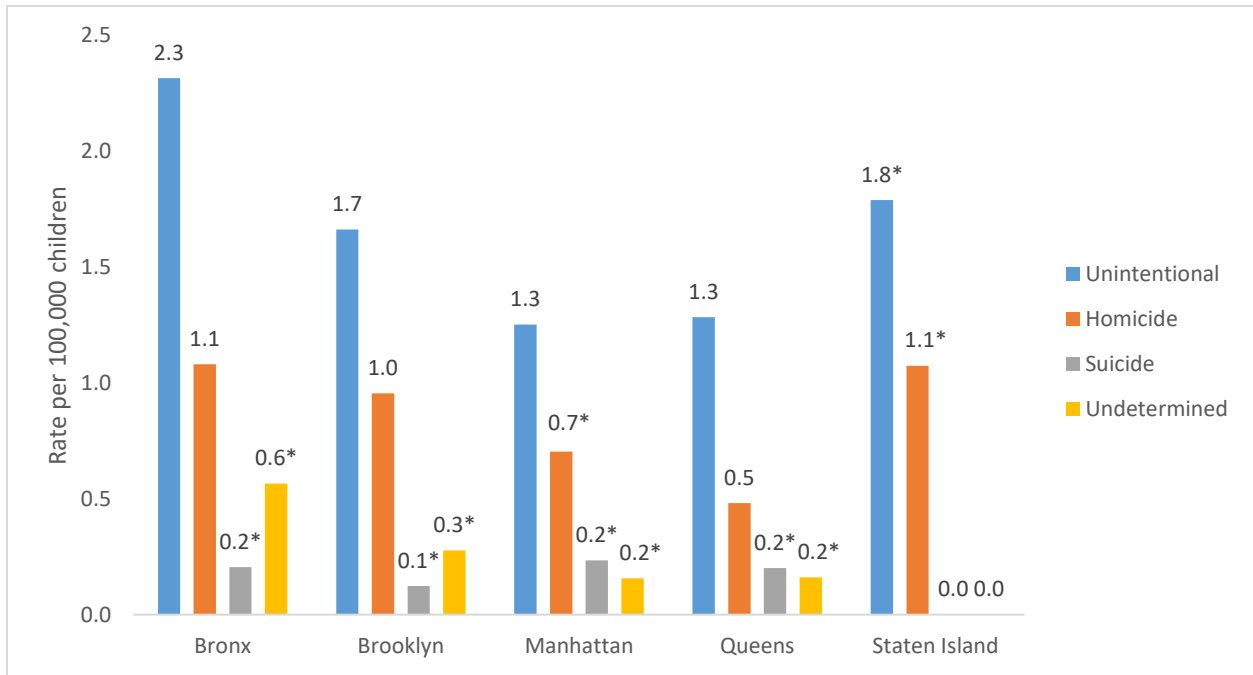
### Injury death rates among children ages 1 to 12 years by intent and race, 2009-2016



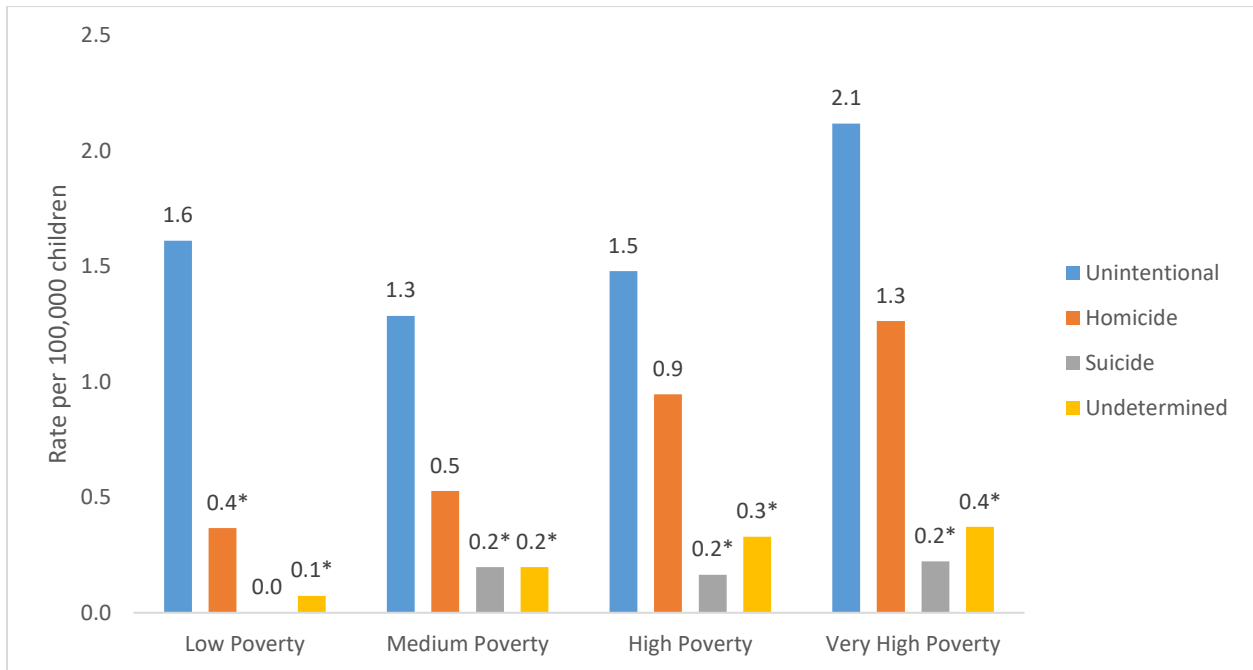
Source: DOHMH Bureau of Vital Statistics and DOHMH population estimates updated 2015

\*Estimate should be interpreted with caution. Estimate's relative standard error (a measure of estimate precision) is greater than 30%, making the estimate potentially unreliable

**Injury death rates among children ages 1 to 12 years by intent and borough, 2009-2016**



**Injury death rates among children ages 1 to 12 years by intent and area-based poverty level<sup>a</sup>, 2009-2016**



Source: DOHMH Bureau of Vital Statistics and DOHMH population estimates updated 2015

\*Estimate should be interpreted with caution. Estimate’s relative standard error (a measure of estimate precision) is greater than 30%, making the estimate potentially unreliable

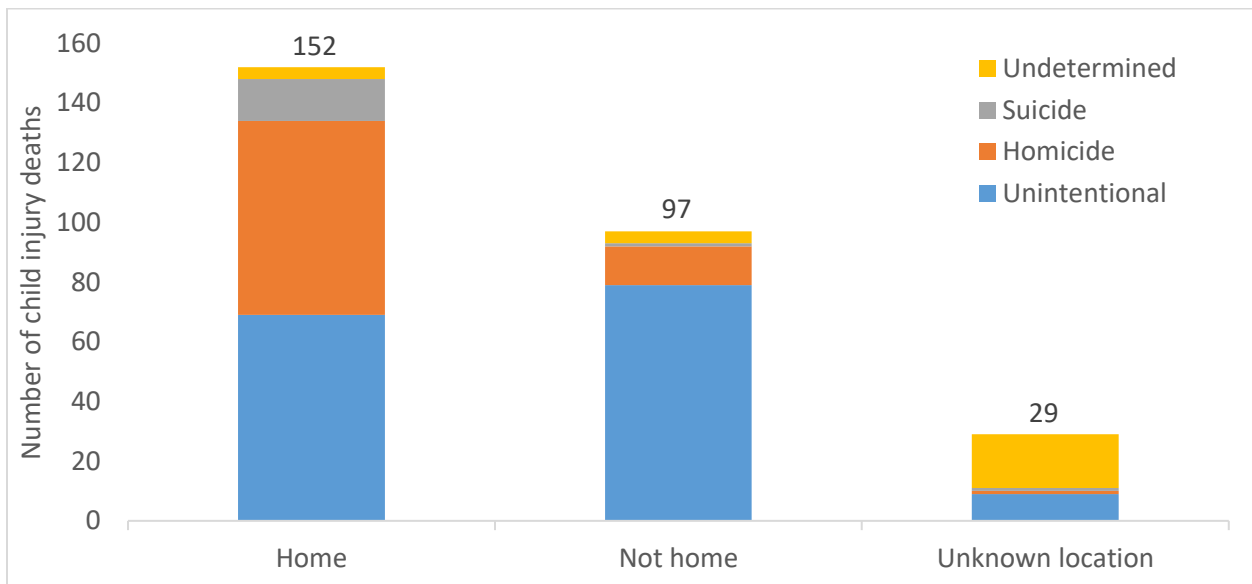
<sup>a</sup> Area-based poverty defined as proportion of residents in a ZIP code with incomes below 100% of the Federal Poverty Level (FPL) per the American Community Survey (2010-2014) in four categories:

Low (<10% FPL), Medium (10%-<20% FPL), High (20%-<30% FPL) and Very High Poverty (≥30% FPL).

### **Section III: Fatal Injuries in the Home<sup>b</sup>**

- Between 2009 and 2016, a little over half (55%, N=152) of all child injury deaths resulted from injuries that occurred in the home. Of the 97 injury deaths that did not occur in the home, a little over half (57%, N=55) were traffic-related.
- Forty-five percent of child injury deaths that occurred in the home were unintentional. The leading cause of unintentional injury deaths was related to fire/flame.
- Forty-three percent of child injury deaths that occurred in the home were homicides. The leading specified cause of homicide was stabbing.
- Nine percent of child injury deaths that occurred in the home were suicides. The leading cause of suicide was hanging.

**Child injury deaths by location of injury and intent, 2009-2016, N=278**



Source: DOHMH Bureau of Vital Statistics and DOHMH population estimates updated 2015

<sup>b</sup> The definition of home injuries includes injuries that occurred in a residence, apartment building, elevator of a residence, or hallway outside of a residence. Residences other than the child’s primary residence were included. All other locations, including public buildings, the sidewalk/street, and group residences were included in the “Not home” category.

Top five causes of injury deaths for children ages 1 to 12 years by intent for fatal injuries that occurred in the home, NYC, 2009-2016, N=152

RANK	Unintentional	Homicide	Suicide
1	Fire/Flame (28)	Not specified <sup>d</sup> (18)	Hanging (13)
2	Suffocation <sup>c</sup> (17)	Stabbing <sup>e</sup> (13)	Poisoning (1)
3	Fall (8)	Other spec (8)	
4	Drowning (5)	Suffocation (7)	
5	Poisoning (4)	<b>TIED:</b> Drowning Fire/flame Poisoning (4 each)	

Source: DOHMH Bureau of Vital Statistics

<sup>c</sup> Unintentional suffocation includes death from injuries due to inhalation of food or other object (e.g., choking) as well as from strangling and positional asphyxia

<sup>d</sup> Not specified includes injury deaths where the mechanism of the injury is missing

<sup>e</sup> Stabbing is defined as any type of assault by a sharp object

## **Recommendations**

Prevention strategies include ways to support families as well as create healthy home environments for all. Parents, caregivers, neighbors, educators, health care providers, clergy, and policy makers should know about, act on, and use the following information and resources:

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### **Resources for Parents and Caregivers**

- [Growing Up NYC](#), [Our Littlest New Yorkers](#) and the CDC's Positive Parenting Tips offer positive support through all stages of child development.
- [Newborn Home Visiting Program](#) and [Nurse-Family Partnership](#) are programs that help parents provide a safe and nurturing environment for their children.
- 1-888-NYC-WELL and [nyc.gov/nycwell](http://nyc.gov/nycwell) provide information for building resilience in children to reduce suicide risk. These resources focus on strengthening coping skills, improving school connectedness, and building peer, family and community supports.

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### **Actions for all**

- Install/have working smoke alarms and carbon monoxide detectors and an evacuation plan in every household.
  - Teach children to cross the street at crosswalks, follow signals, look both ways and keep scanning, and listen for car and truck engines.
  - Promote safe streets initiatives that pursue [Vision Zero](#) goals and encourage responsible driver behavior, more speed enforcement cameras, and additional targeted enforcement.
  - Report suspicions of child abuse or neglect. Some professionals such as physicians and teachers are legally required to do so. Call 1-800-635-1522 or 311.
  - Foster anti-bullying through school-based curriculum, like NYC Department of Education's [Respect for All](#)
  - Promote health equity by supporting racial justice initiatives and providing access to economic resources in neighborhoods left disinvested due to history of structural racism and residential segregation. Search "CHE" at [nyc.gov](http://nyc.gov) to learn more about health equity.
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