

Understanding Child Injury Deaths – Child Fatality Review Advisory Team Annual Report 2022

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 offers 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 a ten-year period and compares them with national data. The most current data are for 2020.
- **Section II** describes the demographic characteristics of NYC’s child injury fatalities, pooling data from 2011 to 2020 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 2011 to 2020 by place of occurrence of the fatal injury.
- **Section IV** recommends strategies preventing child injury deaths in NYC.

INJURY INTENT DEFINITIONS

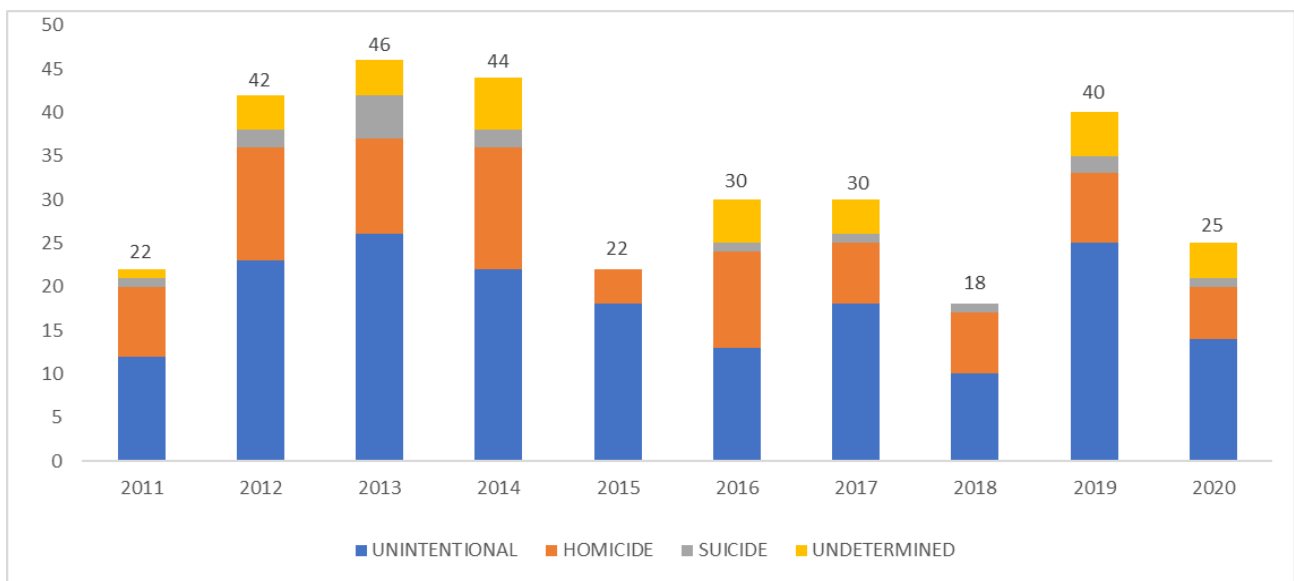
The intent of actions that lead to injury deaths:

- **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

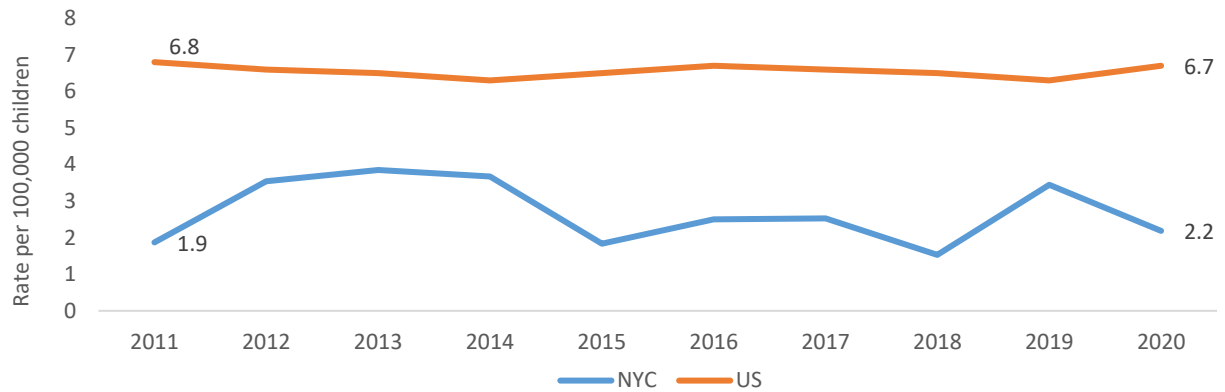
- The number of injury deaths among NYC children had declined in recent years (2015-2018) compared with earlier years (2012-2014). While injury deaths among NYC children reached 40 in 2019, they fell to 25 in 2020. The rate was 2.2 deaths per 100,000 children in 2020.
- NYC's injury death rates among children ages 1 to 12 years have been consistently lower than national rates.
- Out of the 25 injury deaths in 2020, 14 were unintentional, 6 were homicides (a single homicide event resulted in two child deaths), 1 was by suicide, and 4 were of undetermined intent.

Each year from 2011-2020, between 18 and 46 NYC children ages 1 to 12 years died from injuries



Source: DOHMH Bureau of Vital Statistics

Injury death rates* among children ages 1 to 12 years are lower in NYC than in the US



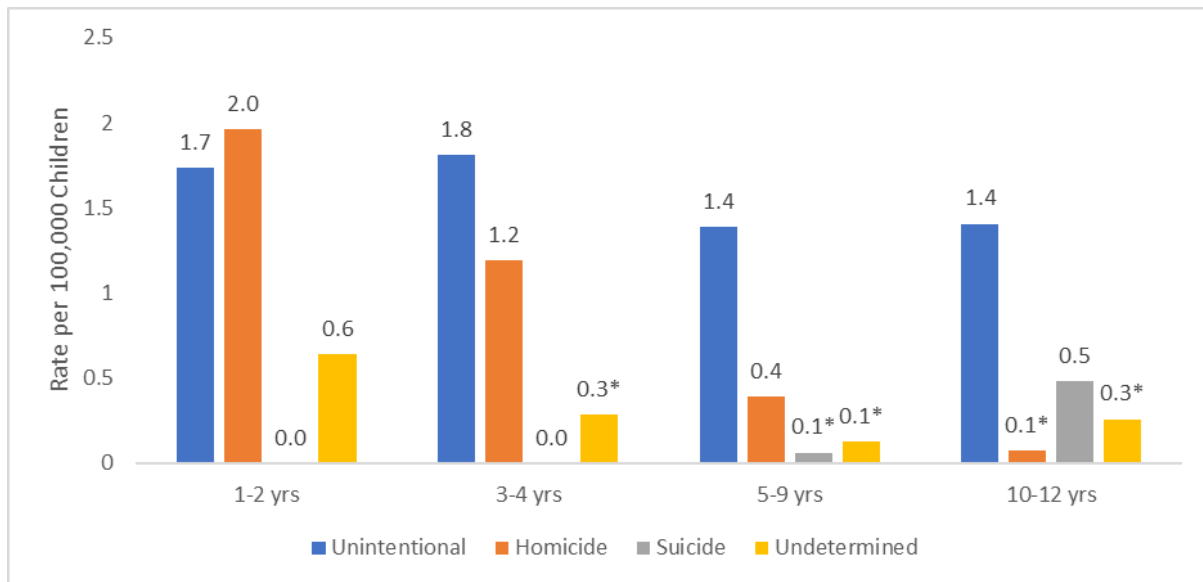
Sources: DOHMH Bureau of Vital Statistics and NYC DOHMH population estimates, modified from US Census Bureau interpolated intercensal population estimates, 2000-2020. Updated September 2021. CDC WONDER accessed September, 2022.

*Rates were calculated using interpolated intercensal population estimates updated in 2020 and may differ from previously reported rates based on the 2000 Census or previous versions of population estimates.

Section II: Demographics of child injury deaths

- Between 2011 and 2020, there were a total of 319 injury deaths among NYC children ages 1 to 12 years. Of those 319 deaths, 57% (N=181) were unintentional, 28% (N=89) were homicides, 5% (N=16) were suicides, and 10% (N=33) were deaths of undetermined intent.
- In NYC, fatal injuries disproportionately affected younger children (ages 1-4), boys, Black children, children living in the Bronx, and children living in very high poverty areas. Racial and economic disparities in child injury deaths persist, signaling structural issues, such as structural racism, at their foundation.

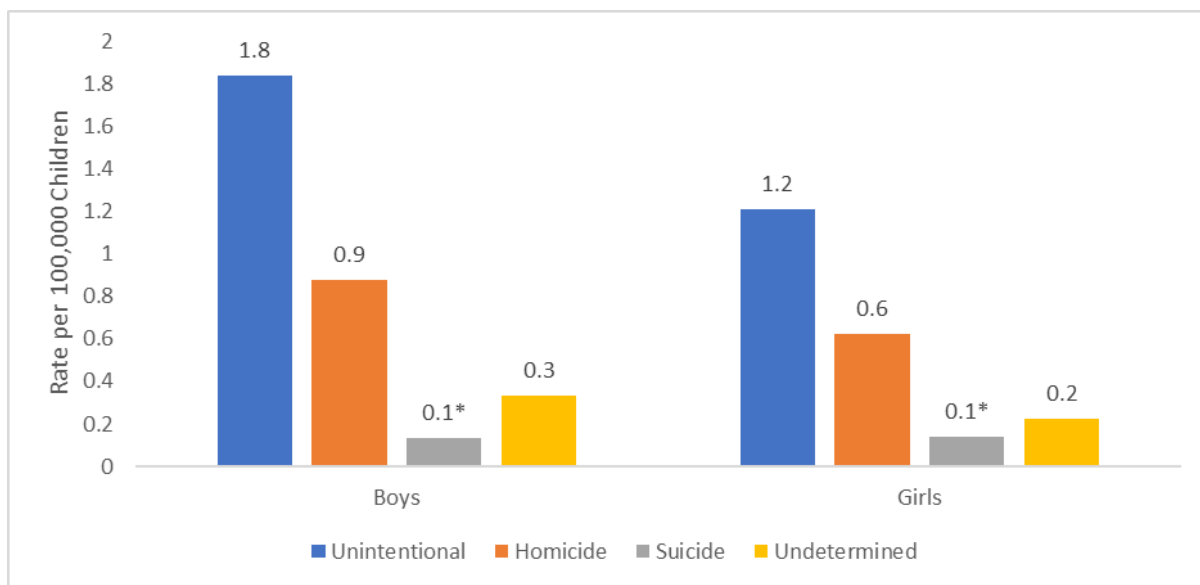
From 2011-2020, unintentional and homicide injury death rates were higher among children ages 1 to 4 years than among children ages 5 to 12 years



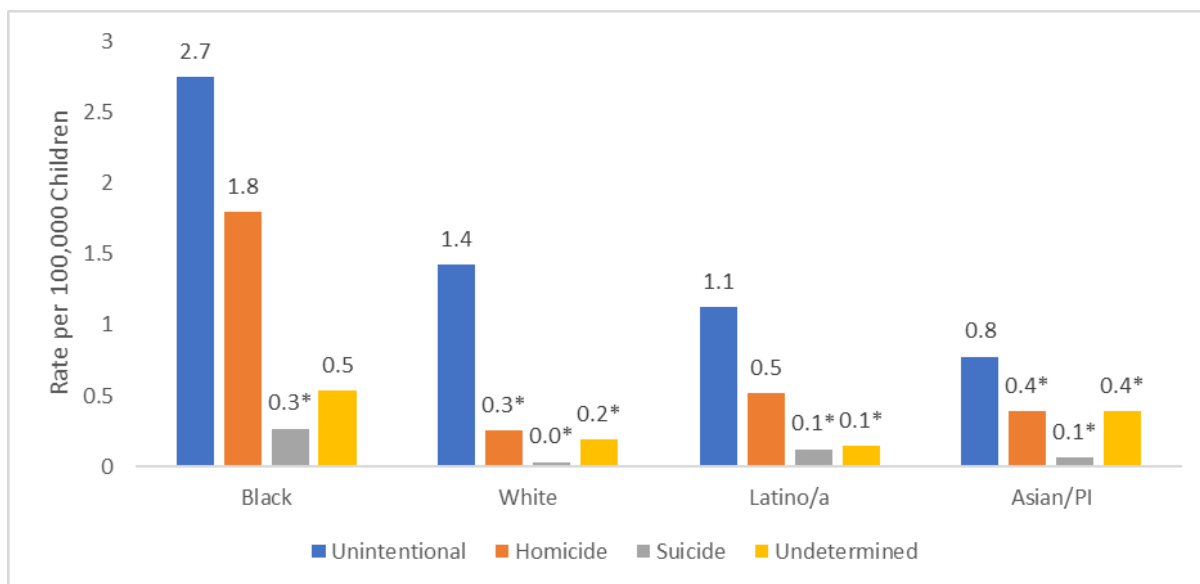
Source: DOHMH Bureau of Vital Statistics NYC DOHMH population estimates, modified from US Census Bureau interpolated intercensal population estimates, 2000-2020. Updated September 2021.

*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.

From 2011-2020, injury death rates among children ages 1 to 12 years were higher among boys than girls



From 2011-2020 injury death rates among children ages 1 to 12 years were higher among Black children and lower among Asian/PI children

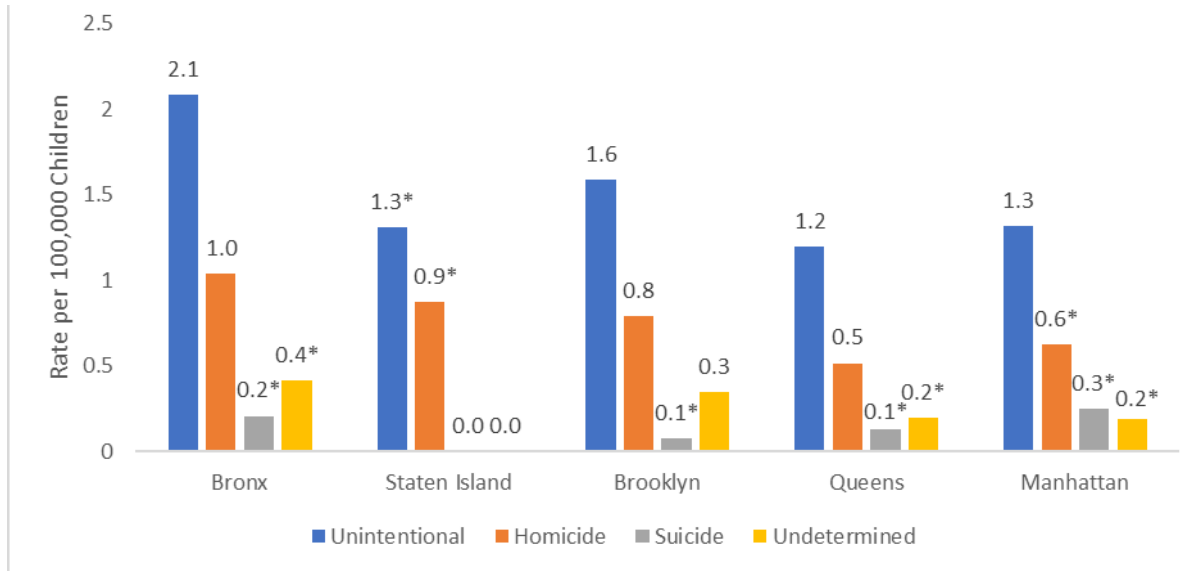


Source: DOHMH Bureau of Vital Statistics and NYC DOHMH population estimates, modified from US Census Bureau interpolated intercensal population estimates, 2000-2020. Updated September, 2021.

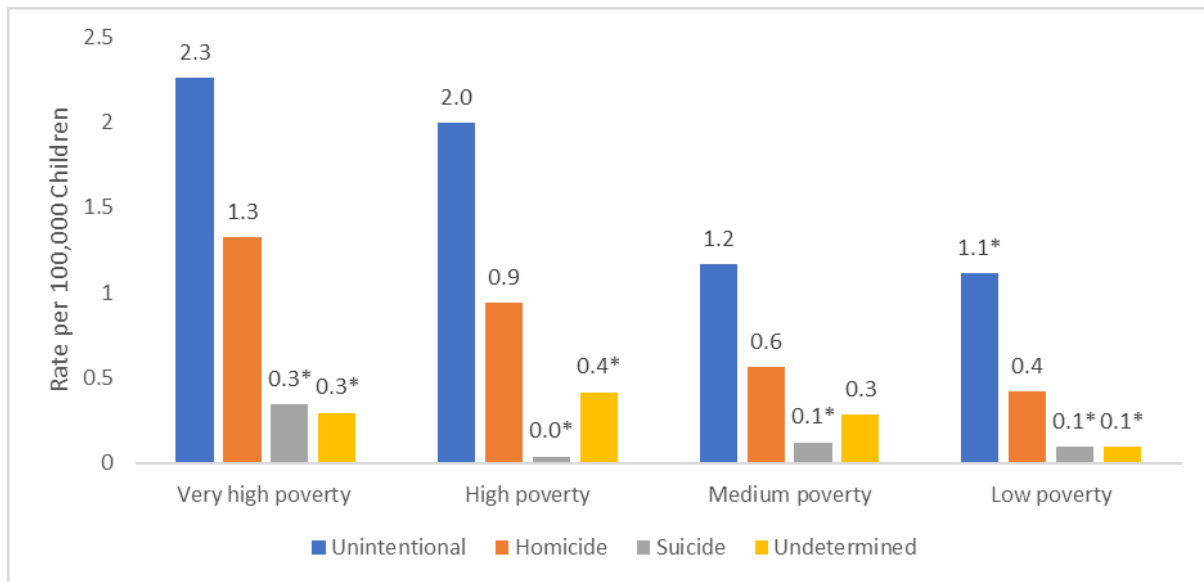
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#Latino/a includes Hispanic or Latino/a people of any race. White, Black, and Asian race categories exclude Latino/a ethnicity.

From 2011-2020, unintentional injury death rates were higher among children living in the Bronx and suicide death rates were higher among children living in Manhattan



From 2011-2020, injury death rates were higher among children ages 1 to 12 living in very high poverty neighborhoods



Source: DOHMH Bureau of Vital Statistics and NYC DOHMH population estimates, modified from US Census Bureau interpolated intercensal population estimates, 2000-2020. Updated September 2021.

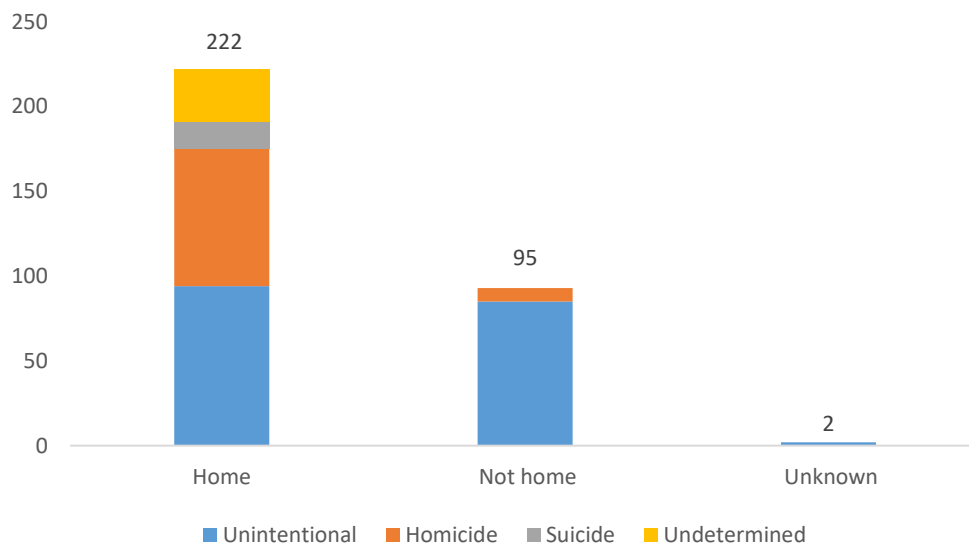
#Area-based poverty is defined as the proportion of residents in a ZIP code with incomes below 100% of the Federal Poverty Level (FPL) per the American Community Survey (2010-2014) in four categories: Low (<10% FPL), Medium (10%-<20% FPL), High (20%-<30% FPL) and Very High Poverty (≥30% FPL).

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Section III: Place of Occurrence of Fatal Injuries

- Between 2011 and 2020, more than two thirds (70%, N=222) of all child injury deaths resulted from injuries that occurred at home. 42% (N=94) of those injuries were unintentional, 36% (N=81) were homicides, 7% (N=16) were suicides, and 14% (N=31) were of undetermined intent.
- Between 2011 and 2020, nearly a third (30%, N=95) of all child injury deaths resulted from injuries that did not occur at home. 89% (N=85) of the not-at-home child injury deaths were unintentional, 8% (N=8) were homicides, and 2% (N=2) were of undetermined intent, and none were suicides.
- The leading cause of not-at-home child injury deaths was unintentional motor vehicle traffic (N=62), which accounted for two thirds of the not-at-home child injury deaths. In 79% of the motor vehicle traffic fatalities, the child injured was a pedestrian (N=49).

From 2011-2020, most injury deaths among children ages 1 to 12 years occurred at home



Source: DOHMH Bureau of Vital Statistics; Office of Chief Medical Examiner

“Home” injuries include those that occurred in a residence or apartment building as well as areas such as the elevator, yard, or rooftop of a residence. Residences other than the child’s primary residence and homeless shelters were included, as well. All other locations, including public buildings and streets were included in the “Not home” category.

Most injury deaths among children ages 1 to 12 years that happen at home are homicides and most that happen away from home are unintentional motor vehicle traffic crashes

Rank	Home (N)	Not home (N)
1	Homicide (81)	Unintentional MV Traffic (62)
2	Unintentional Fire/Flame (43)	Homicide (8)
3	Unintentional Suffocation (17)	Unintentional Drowning (7)

Sources: DOHMH Bureau of Vital Statistics; Office of Chief Medical Examiner

Section IV: Recommendations

Parents, caregivers, neighbors, educators, health care providers, clergy, and policy makers can know about, act on, and use the following information and resources:

Resources for Parents and Caregivers

- Be role models for [safe walking](#). Teach children to cross the street at crosswalks or at the corner, follow pedestrian and traffic signals, look both ways and keep scanning, and listen for car and truck engines. If you drive, be a role model for your children and other drivers. Slow down, pause and wait before you turn, and keep your eyes on the road.
- [Growing Up NYC, Early Childhood Health and Development](#) and the [CDC's Positive Parenting Tips](#) offer tips for positive support through all stages of child development.
- The [Newborn Home Visiting Program](#) and [Nurse-Family Partnership](#) are programs that help parents provide a [safe](#) and nurturing environment for their children.
- Making Waves provides free learn-to-swim and water safety instruction to people ages 6 to 18 who live in low-income neighborhoods. Water safety tips can be found [here](#).
- 1-888-NYC-WELL and [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.

Actions for All

- Advance health equity by supporting racial justice initiatives and providing access to economic resources in neighborhoods disinvested due to a history of structural racism and residential segregation. As with other causes of death, [injury causes of death are shaped by social determinants](#). Go [here](#) to learn more about health equity.
- Promote safe streets initiatives that pursue [Vision Zero](#) goals and encourage safer speeds, safer roads, safer vehicles, safer road users, and better post-crash care.
- Install/have working [smoke alarms and carbon monoxide detectors](#) and an evacuation plan in every household.
- 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. Read more about [reporting for the general public and for mandated reporters](#).
- Foster anti-bullying through a school-based curriculum, like NYC Department of Education's [Respect for All](#).

In memory of Amita Toprani, 1977-2021, DOHMH Medical Director for Environmental Disease and Injury Prevention, dedicated civil servant, beloved friend and colleague, and steadfast advocate of child safety.