New York City Department of Health and Mental Hygiene

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Understanding Child Injury Deaths: 2010–2014 Child Fatality Review Advisory Team Report

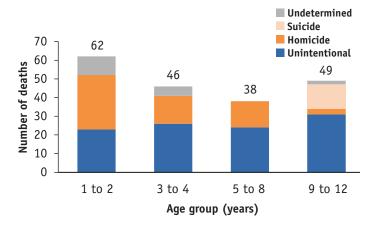
njuries are the leading cause of death among children aged 1 to 12 years in New York City (NYC) and represent 26% of all deaths among children in this age group. On average, there are 39 injury deaths each year, corresponding to a rate of three deaths per 100,000 children. Although injuries are often inaccurately seen as a result of incidents that cannot be anticipated or avoided, most injuries follow patterns that can be predicted and modified. These patterns change as young children grow. Understanding differences and similarities for injury risk as children grow is important for

directing resources to preventing child injuries, educating communities about the risks, and enacting appropriate policies designed to protect children. All children deserve safe and nurturing environments.

This report presents data from a five-year retrospective review of fatal injuries among NYC children aged 1 to 12 years, from 2010 to 2014. It describes patterns in child injury deaths by age groups and demographic characteristics (page two) and intent and cause of injury (page three). In addition, it provides recommendations for preventing child injury deaths (page four).

About half of child injury deaths are unintentional

Injury deaths among children aged 1 to 12 years by age group and intent, New York City, 2010–2014



- In 2010–2014 there were 195 injury deaths among NYC children aged 1 to 12 years, an average of 39 deaths each year.
- About half (53%) of fatal injuries among children aged 1 to 12 years were unintentional. Homicides were the second most common cause (31%).
- Homicides were more frequent among younger children, with nearly half (48%) of injury deaths due to homicides occurring among children aged 1 to 2 years.
- Suicides made up 27% of injury deaths among children aged 9 to 12 years.

Source: DOHMH Bureau of Vital Statistics, 2010–2014

This report uses the following terms to categorize injury deaths:

Unintentional – Injury death that occurred without intent to harm or cause death, also called "accident."

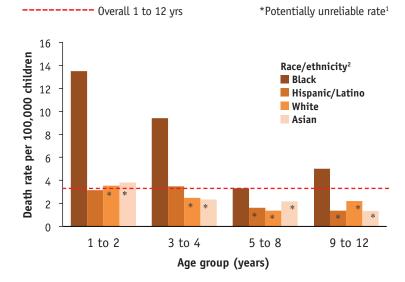
Homicide - Death resulting from injuries inflicted by another person, with the intent to cause harm.

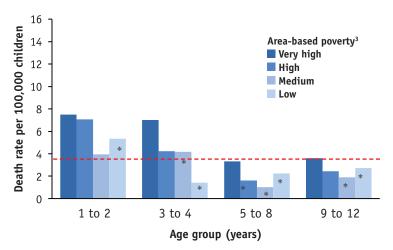
Suicide - Injury death resulting from self-harm.

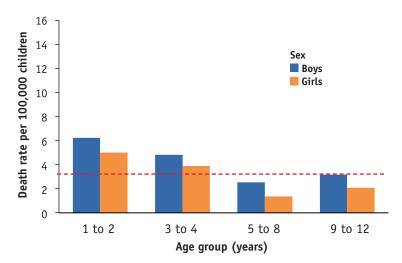
Undetermined – The intent of the injury death cannot be determined.

Injury death rates are highest among Black children, children living in very high poverty areas, and boys in all age groups

Injury death rates among New York City children by age group, 2010–2014







Source: NYC DOHMH Bureau of Vital Statistics, 2010-2014

- Black children had the highest rate of injury death across all age groups. This disparity was greatest among children aged 1 to 2 years, with rates more than three times as high as other racial/ethnic groups. This disparity among 1 to 2 year olds is largely driven by differences in the number of homicides by race/ethnicity (see supplemental table 4).
- Among 3 to 4, 5 to 8, and 9 to 12 year olds, Black children had around twice the rate of unintentional injury death as other racial/ethnic groups (see supplemental table 3).
- Fatal injury rates were highest among children from very high poverty areas across all age groups in 2010–2014.
- When comparing very high with low poverty areas, the greatest difference was seen in children aged 3 to 4 years, where rates in very high poverty areas were five times those of low poverty areas. This disparity among 3 to 4 year olds is largely driven by differences in the number of homicides by area-based poverty (see supplemental table 4).
- Across all age groups, fatal injury rates were higher among boys than among girls in 2010–2014.
- Fatal injury rates were highest in the Bronx among children aged three and older, but were highest in Staten Island among children aged 1 to 2 years (see supplemental table 2).

¹ Estimate should be interpreted with caution. Relative Standard Error ≥30%, making the estimate potentially unreliable.

² Black, White and Asian racial groups exclude Hispanic/ Latino ethnicity.

³ Area-based poverty (based on ZIP code) is defined as the percent of residents with incomes below 100% of the Federal Poverty Level per American Community Survey (2010–2014): Low (wealthiest): <10%; Medium: 10 to <20%; High: 20 to <30%; Very high (poorest): ≥30%.

Motor-vehicle related injuries are the leading cause of unintentional injury death

Leading causes[⋄] of unintentional injury deaths by age group, New York City, 2010–2014

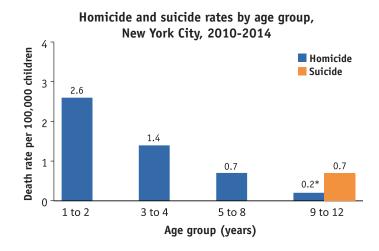
Rank	1 to 4 years	5 to 12 years	1 to 12 years
	(N=49)	(N=55)	(N=104)
1	Motor vehicle-	Motor vehicle-	Motor vehicle-
	related	related	related
	(N=14)	(N=27)	(N=41)
2	Suffocation	Fire-related	Fire-related
	(N=9)	(N=12)	(N=18)
3	Fire-related†	Drowning	Suffocation
	(N=6)	(N=4)	(N=11)
4	Fall†	Poisoning	Drowning
	(N=6)	(N=3)	(N=8)

[♦] Excluding Other Specified cause of death

Source: NYC DOHMH Bureau of Vital Statistics, 2010–2014

- Motor vehicle-related injuries were the leading cause of unintentional injury death overall among children aged 1 to 12 years old, as well as in the 1 to 4 and 5 to 12 year age groups in 2010–2014. In 80% of these deaths (N=33), the child was a pedestrian struck by a motor vehicle.
- The second leading cause of unintentional injury death among children aged 1 to 4 years was suffocation from choking, positional asphyxia,¹ or entanglement that led to unintentional hanging.
- Fire-related injuries (smoke inhalation and thermal burns) were the second leading cause of unintentional injury death among children aged 5 to 12 years.
- The majority of fire-related deaths occurred among Black children. The majority of motor vehicle-related and suffocation deaths occurred among children living in high and very high poverty neighborhoods.

Child homicide rates are highest among younger children



* Estimate should be interpreted with caution. Relative Standard Error ≥30%, making the estimate potentially unreliable.

Source: NYC DOHMH Bureau of Vital Statistics, 2010–2014

- Child homicide rates were highest among children aged 1 to 2 years in 2010-2014.
 Children aged 1 to 2 years had almost twice the homicide rate of children aged 3 to 4 years (2.6 per 100,000 vs. 1.4 per 100,000). Among 1 to 2 year olds, the homicide rate was highest among Black children (8 deaths per 100,000).
- For children aged 1 to 4 years, most homicides were caused by child abuse and neglect or assault by unspecified means.
- Of the 13 suicides among children aged 9 to 12 years, hanging was the leading cause.

Data Sources: NYC DOHMH Bureau of Vital Statistics death certificates. Intent and cause of injury deaths were classified following the National Center for Health Statistics ICD-10 external cause of injury matrix. More information on data sources and population estimates for rate calculations can be found in the tables appendix.

Footnote:

1 Positional asphyxia results when a child's airway is obstructed due to an abnormal body position, such as when a child is wedged between a bed and wall.

[†] Tied rank.

Recommendations

Parents and caregivers:

- Every parent needs support. Refer to the Centers for Disease Control's Positive Parenting Tips and to Growing Up NYC for information and local resources.
- Build resilience in children to lessen the potential for suicide risk. Focus on strengthening coping skills, communication and support among family members; improving school connectedness; and building peer and community supports. Call 1-888-NYC-WELL or visit nyc.gov/nycwell for additional information.
- Be sure your household has working smoke alarms, carbon monoxide detectors and an evacuation plan.
- 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 listen for cars before and while crossing the street.

Educators, health care providers and clergy:

- Call 1-800-635-1522 or 311 to report suspicions of child abuse or neglect. Some professionals, such as physicians and teachers, are legally required to report. Everyone can and should report suspicions of child abuse or neglect.
- Recognize risk factors for mental health problems in children, learn how to help a child in crisis, and make appropriate referrals. Get training in Youth Mental Health First Aid.
- Health care providers should conduct mental health screening as part of well-child visits using a standardized tool and make referrals for services when appropriate. Learn about NYC WELL resources for providers and consult Project TEACH for help addressing mental health issues and making referrals.

Policy makers:

- Promote policy and program initiatives for safer streets, such as street re-designs, speed enforcement cameras and enforcement practices that prioritize the traffic violations that contribute most to injurious crashes.
- Support programs such as the Newborn Home Visiting Program and Nurse-Family Partnership that help parents provide a safe and nurturing environment for their children.
- Maintain and expand proven violence prevention programs and youth development services, such as NYC's Gun Violence Crisis Management System and Cure Violence, in high-violence communities.
- Expand social, emotional and mental health support for children in child care, preschool, elementary and middle schools, as described in ThriveNYC: A Mental Health Roadmap for All.
- Ensure that all communities and families have equal access to resources aimed at keeping their children healthy and safe.

In memory of Leze Nicaj, 1970-2016, OCME Child Fatality Coordinator, dedicated civil servant, beloved friend and colleague.

The New York City Child Fatality Review Advisory Team (CFRAT) — a multidisciplinary committee of representatives from City agencies and child welfare and medical experts appointed by the Mayor, the City Council Speaker and the Public Advocate for the City of New York—was formed in 2006 by Local Law 115 to review and report on injuries as preventable causes of death among New York City children under the age of 13.

Appointees: Stephen Ajl, MD Brooklyn Hospital Center; **Stephanie Gendell, Esq.** Citizens' Committee for Children; **Donna Lawrence, MA** "I Have a Dream" Foundation.

City Agency Representatives: Catherine Stayton (Chair) Department of Health and Mental Hygiene; Ancil Payne
Administration for Children's Services; Cheryl A. Hall Department of Education; Marjorie Marciano Department of
Transportation; Melissa Pasquale-Styles, MD Office of Chief Medical Examiner; Michael Osqood NYC Police Department

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Vital Signs Data Tables

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Data Sources

NYC DOHMH Bureau of Vital Statistics: Injury death information was obtained from death certificates collected by the NYC DOHMH's Bureau of Vital Statistics. To classify intent and mechanism, we followed the National Center for Health Statistics external cause of injury matrix (based on the International Classification of Diseases, 10th Revisions ((ICD-10) codes) excluding injuries caused by legal intervention, available at: http://www.cdc.gov/nchs/injury/injury_tools.htm. The following ICD-10 codes were used to identify injury deaths: V01-X59, X85-Y09, X60-X84, Y10-Y34.

US Mortality Data: National data were obtained from the Centers for Disease Control's (CDC) Wide-ranging Online Data for Epidemiologic Research (WONDER). Data were accessed July 2016 at: http://wonder.cdc.gov/.

DOHMH Population Estimates: Age-specific population rates were calculated using NYC DOHMH population estimates, modified from U.S. Census Bureau intercensal population estimates from 2010-2014 and last updated July 5, 2016. Age-specific population rates for area-based poverty measures were calculated using U.S. Census Bureau 2010 population counts.

Authors & Acknowledgements

Authors: Sarah Conderino, Ariel Spira-Cohen, Anna Caffarelli, Jennifer M. Norton, Catherine Stayton.

Acknowledgements: Joan M. Bush, Lorraine Boyd, Arthur Cooper, Myla Harrison, Mary Huynh, Corinne Schiff, Lily Tom, Amita Toprani, Noreen Mulvanerty.



Table 1. Child injury deaths by intent by age group, New York City, 2010-2014

Source: NYC DOHMH Bureau of Vital Statistics

	1 to 1	2 years	1 to 2	1 to 2 years		years	5 to 8	years	9 to 12 years		
Intent	N	Rate ¹	N	Rate ¹	N	Rate ¹	N	Rate ¹	N	Rate ¹	
Unintentional	104	1.8	23	2.1	26	2.5	24	1.2	31	1.7	
Homicide	61	1.0	29	2.6	15	1.4	14	0.7	3	0.2*	
Suicide	13	0.2	0	0.0	0	0.0	0	0.0	13	0.7	
Undetermined	17	0.3	10	0.9*	5	0.5*	0	0.0	2	0.1*	
Total	195	3.3	62	5.6	46	4.4	38	2.0	49	2.6	

¹Rate per 100,000

^{*}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.

Table 2. Child injury deaths: Sex, race/ethnicity, borough of residence, and area-based poverty by age group, New York City, 2010-2014

Source: NYC DOHMH Bureau of Vital Statistics

		1 to 12 yea	rs		1 to 2 year	rs		3 to 4 year	'S		5 to 8 year	s	9 to 12 years		
Variable	N	%	Rate ¹	N	%	Rate ¹	N	%	Rate ¹	N	%	Rate ¹	N	%	Rate ¹
Sex															
Boys	116	59	3.8	35	56	6.2	26	57	4.8	25	66	2.5	30	61	3.2
Girls	79	41	2.7	27	44	5.0	20	43	3.9	13	34	1.4	19	39	2.1
Race/ethnicity															
Non-Hispanic White	35	18	2.2	11	18	3.5*	7	15	2.5*	7	18	1.4*	10	20	2.2*
Non-Hispanic Black	93	48	6.6	32	52	13.5	22	48	9.4	15	39	3.3	24	49	5.0
Hispanic	45	23	2.1	12	19	3.1	13	28	3.5	11	29	1.6*	9	18	1.4*
Asian	16	8	2.3	5	8	3.8*	3	7	2.3*	5	13	2.2*	3	6	1.3*
Borough															
Bronx	60	31	4.9	17	27	7.9	17	37	8.1	12	32	3.0	14	29	3.6
Brooklyn	64	33	3.2	22	35	5.8	13	28	3.5	14	37	2.1	15	31	2.4
Manhattan	17	9	2.1	2	3	1.2*	4	9	2.7*	5	13	2.0*	6	12	2.6*
Queens	40	21	2.6	14	23	4.9	9	20	3.3*	5	13	1.0*	12	24	2.4
Staten Island	14	7	4.0	7	11	12.5*	3	7	5.3*	2	5	1.7*	2	4	1.7*
Area-Based Poverty ²															
Low	23	12	2.8	8	13	5.3*	2	4	1.4*	6	16	2.2*	7	14	2.7*
Medium	43	22	2.4	13	21	3.9	13	28	4.2	6	16	1.0*	11	22	1.9*
High	50	26	3.3	19	31	7.1	11	24	4.2*	8	21	1.6*	12	24	2.4
Very High	79	41	4.8	22	35	7.5	20	43	7.0	18	47	3.3	19	39	3.6
Total	195	100	3.3	62	100	5.6	46	100	4.4	38	100	2.0	49	100	2.6

¹Rate per 100,000

Percents may not sum to 100% due to rounding. Other race/ethnicity not displayed due to small numbers.

²Area-based poverty (based on ZIP code) is defined as the percent of residents with incomes below 100% of the Federal Poverty Level per American Community Survey (2010–2014): Low (wealthiest): <10%; Medium: 10 to <20%; High: 20 to <30%; Very high (poorest): ≥30%

^{*}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.

Table 3. Unintentional injury deaths: Sex, race/ethnicity, borough of residence, and area-based poverty by age group, New York City, 2010-2014

Source: NYC DOHMH Bureau of Vital Statistics

		1 to 12 yea	rs		1 to 2 year	rs		3 to 4 year	'S		5 to 8 year	'S		9 to 12 yea	rs
Variable	N	%	Rate ¹	N	%	Rate ¹	N	%	Rate ¹	N	%	Rate ¹	N	%	Rate ¹
Sex															
Boys	67	64	2.2	13	57	2.3	17	65	3.2	16	67	1.6	21	68	2.2
Girls	37	36	1.3	10	43	1.9*	9	35	1.7*	8	33	0.8*	10	32	1.1*
Race/ethnicity															
Non-Hispanic White	25	24	1.6	8	35	2.6*	6	23	2.1*	4	17	0.8*	7	23	1.5*
Non-Hispanic Black	43	41	3.1	7	30	2.9*	11	42	4.7*	9	38	2.0*	16	52	3.3
Hispanic	28	27	1.3	7	30	1.8*	7	27	1.9*	8	33	1.2*	6	19	0.9*
Asian	7	7	1.0*	1	4	0.8*	2	8	1.6*	3	13	1.3*	1	3	0.4*
Borough															
Bronx	31	30	2.6	8	35	3.7*	7	27	3.3*	8	33	2.0*	8	26	2.0*
Brooklyn	30	29	1.5	5	22	1.3*	7	27	1.9*	7	29	1.1*	11	35	1.8*
Manhattan	8	8	1.0*	0	0	0.0	2	8	1.4*	3	13	1.2*	3	10	1.3*
Queens	26	25	1.7	6	26	2.1*	7	27	2.6*	5	21	1.0*	8	26	1.6*
Staten Island	9	9	2.6*	4	17	7.2*	3	12	5.3*	1	4	0.8*	1	3	0.8*
Area-Based Poverty ²															
Low	18	17	2.2	5	22	3.3*	2	8	1.4*	4	17	1.5*	7	23	2.7*
Medium	24	23	1.3	5	22	1.5*	7	27	2.2*	5	21	0.9*	7	23	1.2*
High	25	24	1.6	4	17	1.5*	9	35	3.4*	4	17	0.8*	8	26	1.6*
Very High	37	36	2.2	9	39	3.1*	8	31	2.8*	11	46	2.0*	9	29	1.7*
Total	104	100	1.8	23	100	2.1	26	100	2.5	24	100	1.2	31	100	1.7

¹Rate per 100,000

Percents may not sum to 100% due to rounding. Other race/ethnicity not displayed due to small numbers.

²Area-based poverty (based on ZIP code) is defined as the percent of residents with incomes below 100% of the Federal Poverty Level per American Community Survey (2010–2014): Low (wealthiest): <10%; Medium: 10 to <20%; High: 20 to <30%; Very high (poorest): ≥30%

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Table 4. Homicides: Sex, race/ethnicity, borough of residence, and area-based poverty by age group, New York City, 2010-2014

Source: NYC DOHMH Bureau of Vital Statistics

		1 to 12 year	rs		1 to 2 years			3 to 4 years	S		5 to 8 years	s	9 to 12 years		
Variable	N	%	Rate ¹	N	%	Rate ¹									
Sex															
Boys	34	56	1.1	18	62	3.2	6	40	1.1*	9	64	0.9*	1	33	0.1*
Girls	27	44	0.9	11	38	2.0*	9	60	1.7*	5	36	0.5*	2	67	0.2*
Race/ethnicity															
Non-Hispanic White	4	7	0.3*	1	3	0.3*	0	0	0.0	3	21	0.6*	0	0	0.0
Non-Hispanic Black	36	59	2.6	19	66	8.0	9	60	3.8*	6	43	1.3*	2	67	0.4*
Hispanic	13	21	0.6	5	17	1.3*	5	33	1.3*	3	21	0.4*	0	0	0.0
Asian	5	8	0.7*	2	7	1.5*	0	0	0.0	2	14	0.9*	1	33	0.4*
Borough															
Bronx	18	30	1.5	5	17	2.3*	8	53	3.8*	4	29	1.0*	1	33	0.3*
Brooklyn	25	41	1.2	13	45	3.4	4	27	1.1*	7	50	1.1*	1	33	0.2*
Manhattan	5	8	0.6*	1	3	0.6*	2	13	1.4*	2	14	0.8*	0	0	0.0
Queens	8	13	0.5*	7	24	2.5*	1	7	0.4*	0	0	0.0	0	0	0.0
Staten Island	5	8	1.4*	3	10	5.4*	0	0	0.0	1	7	0.8*	1	33	0.8*
Area-Based Poverty ²															
Low	4	7	0.5*	2	7	1.3*	0	0	0.0	2	14	0.7*	0	0	0.0
Medium	11	18	0.6*	7	24	2.1*	3	20	1.0*	1	7	0.2*	0	0	0.0
High	18	30	1.2	12	41	4.5	1	7	0.4*	4	29	0.8*	1	33	0.2*
Very High	28	46	1.7	8	28	2.7*	11	73	3.9*	7	50	1.3*	2	67	0.4*
Total	61	100	1.0	29	100	2.6	15	100	1.4*	14	100	0.7*	3	100	0.2*

¹Rate per 100,000

Percents may not sum to 100% due to rounding. Other race/ethnicity not displayed due to small numbers.

²Area-based poverty (based on ZIP code) is defined as the percent of residents with incomes below 100% of the Federal Poverty Level per American Community Survey (2010–2014): Low (wealthiest): <10%; Medium: 10 to <20%; High: 20 to <30%; Very high (poorest): ≥30%

^{*}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.



Table 5. Leading causes of unintentional injury deaths by age group, New York City, 2010-2014

Source: NYC DOHMH Bureau of Vital Statistics

		1 to 12 years	5		1 to 4 years		5 to 12 years			
	Rank	N	%	Rank	N	%	Rank	N	%	
All causes		104	100		49	100		55	100	
Leading causes										
MV Traffic ¹	1	41	39	1	14	29	1	27	49	
Fire/Flame	2	18	17	3	6	12	2	12	22	
Suffocation	3	11	11	2	9	18	5	2	4	
Drowning	4	8	8	5	4	8	3	4	7	
Fall	5	6	6	3	6	12	-	0	0	
Natural/Environmental	5	6	6	4	5	10	6	1	2	
Poisoning	5	6	6	6	3	6	4	3	5	
Other Specified	6	3	3	-	0	0	4	3	5	
Struck By/Against	7	2	2	7	1	2	6	1	2	
Not Specified	7	2	2	7	1	2	6	1	2	
Not Elsewhere Classified	8	1	1	-	0	0	6	1	2	

¹Motor vehicle (MV) traffic-related, 80% of which are pedestrians struck by motor vehicles

See appendix glossary for more information about classification of injury mechanisms

Percents may not sum to 100% due to rounding.

Table 6. Annual child injury deaths by age group, New York City and US, 2010-2014

Sources: CDC WONDER and NYC DOHMH Bureau of Vital Statistics

	NYC										US									
	1 to 1	2 years	1 to	2 years	3 to 4	4 years	5 to	8 years	9 to 1	2 years	1 to 1	2 years	1 to	2 years	3 to 4	4 years	5 to 8	3 years	9 to 1	2 years
Year	N	Rate ¹	N	Rate ¹	N	Rate ¹	N	Rate ¹	N	Rate ¹	N	Rate ¹	N	Rate ¹	N	Rate ¹	N	Rate ¹	N	Rate ¹
2010	41	3.5	14	6.7	7	3.5*	9	2.3*	11	2.9*	3,328	6.8	1,197	14.8	664	8.1	747	4.6	720	4.4
2011	22	1.9	7	3.2*	5	2.4*	5	1.3*	5	1.4*	3,343	6.8	1,153	14.5	694	8.4	750	4.6	746	4.5
2012	42	3.5	12	5.4	12	5.7	8	2.1*	10	2.7*	3,240	6.6	1,110	13.9	656	8.1	747	4.6	727	4.4
2013	46	3.8	15	6.7	11	5.1*	9	2.3*	11	3.0*	3,184	6.5	1,070	13.5	648	8.1	737	4.5	729	4.4
2014	44	3.6	14	6.1	11	5.0*	7	1.8*	12	3.2	3,085	6.3	975	12.3	669	8.4	703	4.3	738	4.5
Yearly Average	39	3.3	12	5.6	9	4.3	8	2.0	10	2.6	3,236	6.6	1,101	13.8	666	8.2	737	4.5	732	4.4

¹Rate per 100,000

^{*}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.

Appendix: Glossary of	injury intent and mechanism terminology
This report uses the following	g terms to describe the intent of actions that lead to the injury death:
Unintentional:	Injury death that occurred without intent to harm or cause death, also called "accident."
Homicide:	Death resulting from injuries inflicted by another person, with the intent to cause harm.
Suicide:	Injury death resulting from self-harm.
Undetermined:	The intent of the injury death cannot be determined.
This report uses the following	g terms to describe the mechanism that cause the injury death:
Cut/pierce:	death resulting from an incision, slash, penetration, or puncture of sharp instrument, weapon, or object.
Drowning:	death resulting from submersion in water or other liquid.
Fall-related:	death from any injury received when someone descends abruptly as a result of the force of gravity and strikes a surface at the same or lower level.
Fire/flame related:	death caused by an injury resulting from severe exposure to flames, heat or smoke inhalation.
Firearm:	death resulting from penetrating force injury from a bullet or other projectile shot from a powder-charged gun.
Hot object/scald:	death resulting from contact with heat, hot substances, or hot objects.
Natural/environmental:	death resulting from exposure to adverse natural and environmental conditions (e.g., severe heat, severe cold, lightning,
	tornadoes, and natural disasters), as well as lack of food or water.
Not Elsewhere Classified:	death resulting from an injury not classifiable in another category.
Not specified:	death from an injury missing either the manner (e.g., intentional, unintentional) or mechanism (e.g,. motor vehicle, firearm) of the injury.
Other land transport:	death resulting from other land transportation-related crashes, excluding injuries to pedal cyclists and pedestrians.
Other pedal cyclist:	death caused by injuries to a pedal cyclist from a non-motor vehicle transportation-related crash.
Other pedestrian:	death caused by injuries to a pedestrian from a non-motor vehicle transportation-related crash.
Other specified:	death from an injury associated with any other specified cause that does not fit another category.
Motor vehicle-related:	death caused by injuries from a motor vehicle collision including injuries to a motor vehicle occupant, pedestrian, or pedal cyclist.
Poisoning:	death resulting from ingestion, inhalation, absorption through the skin, or injection of so much of a drug, toxin, or other chemical that a harmful effect results (e.g., drug overdoses). This category does not include harmful effects from normal therapeutic drugs (i.e., unexpected adverse effects to a drug administered correctly to treat a condition) or bacterial illnesses.
Struck by/against:	death resulting from being struck by (i.e., hit) or crushed by a human, animal, or inanimate object or force other than a vehicle or machinery.
Suffocation:	death from injuries due to inhalation, aspiration, or ingestion of food or other object (e.g., choking), and mechanical suffocation (e.g., hanging). Note: most suffocation deaths among younger children (aged 1 to 9) were unintentional choking and among older children (aged 10 to 12) were suicide by hanging.

Note: The above mechanisms are based on the International Classification of Diseases (ICD) Injury matrices, which are frameworks designed to organize ICD coded injury data into meaningful groupings for national and international comparability. Source: NCHS. ICD-10: External cause of injury mortality matrix. Available from: http://www.cdc.gov/nchs/injury/injury_matrices.htm