

Examining trends in and characteristics of youth violence at the neighborhood level

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Presentation Outline

- Rationale
- Research Objectives
- Data Sources
- Findings
 - Socioeconomic Context
 - Youth Homicide Trends
 - Youth Assault Hospitalization Trends
- Implications

Rationale

- National youth homicide rates have declined slightly in recent years; data suggest non-fatal youth violence has stabilized.
 - New York City (NYC) rates mirror trends.
- However, NYC is a complex urban center with great diversity in social, economic, and environmental conditions.

Rationale (*cont.*)

- A citywide examination of youth violence may mask the true burden of violence in certain areas in NYC.
- Thus, we compare citywide violence data to neighborhood level data to determine whether comprehensive surveillance of violence requires local level consideration of fatal and non-fatal incidents.

Research Objectives

- Compare:
 - Trend and burden of fatal and non-fatal violence among youth
 - Circumstances surrounding fatal and non-fatal violence among youth
 - *New York City*
 - *Northern Manhattan neighborhood (NM)*
 - *South Bronx neighborhood (SB)*

Background: Columbia University's Center for Youth Violence Prevention

- Established by the Centers for Disease Control and Prevention in 2000
- Collaboration of researchers, policymakers, and community representatives committed to understanding and reducing youth violence
- Surveillance: accomplished in partnership with the NYC Department of Health and Mental Hygiene (DOHMH).
- DOHMH collects and analyzes data on violence-related injuries by age, gender, time, and place in NYC and by specific neighborhoods.

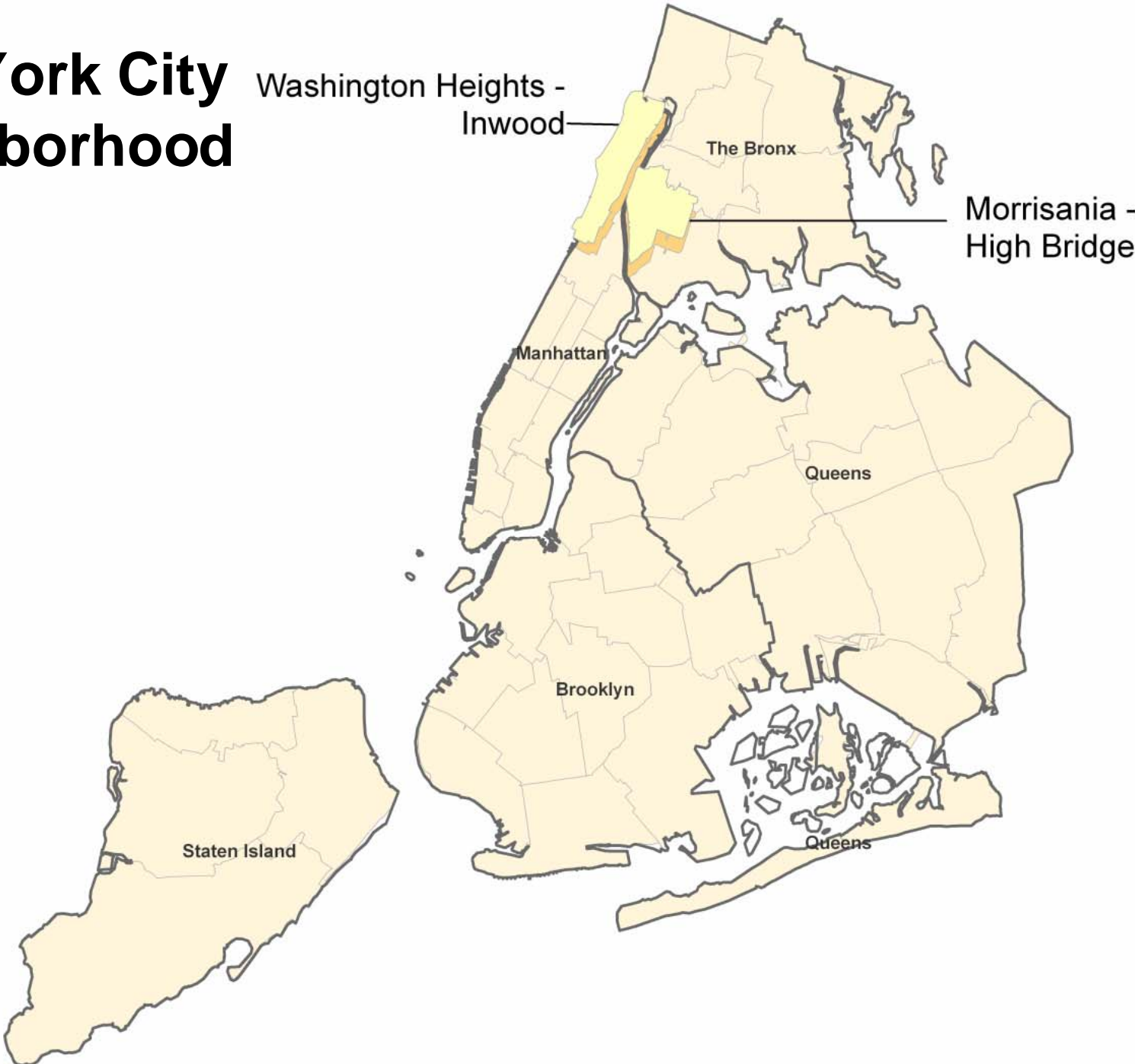


Data sources

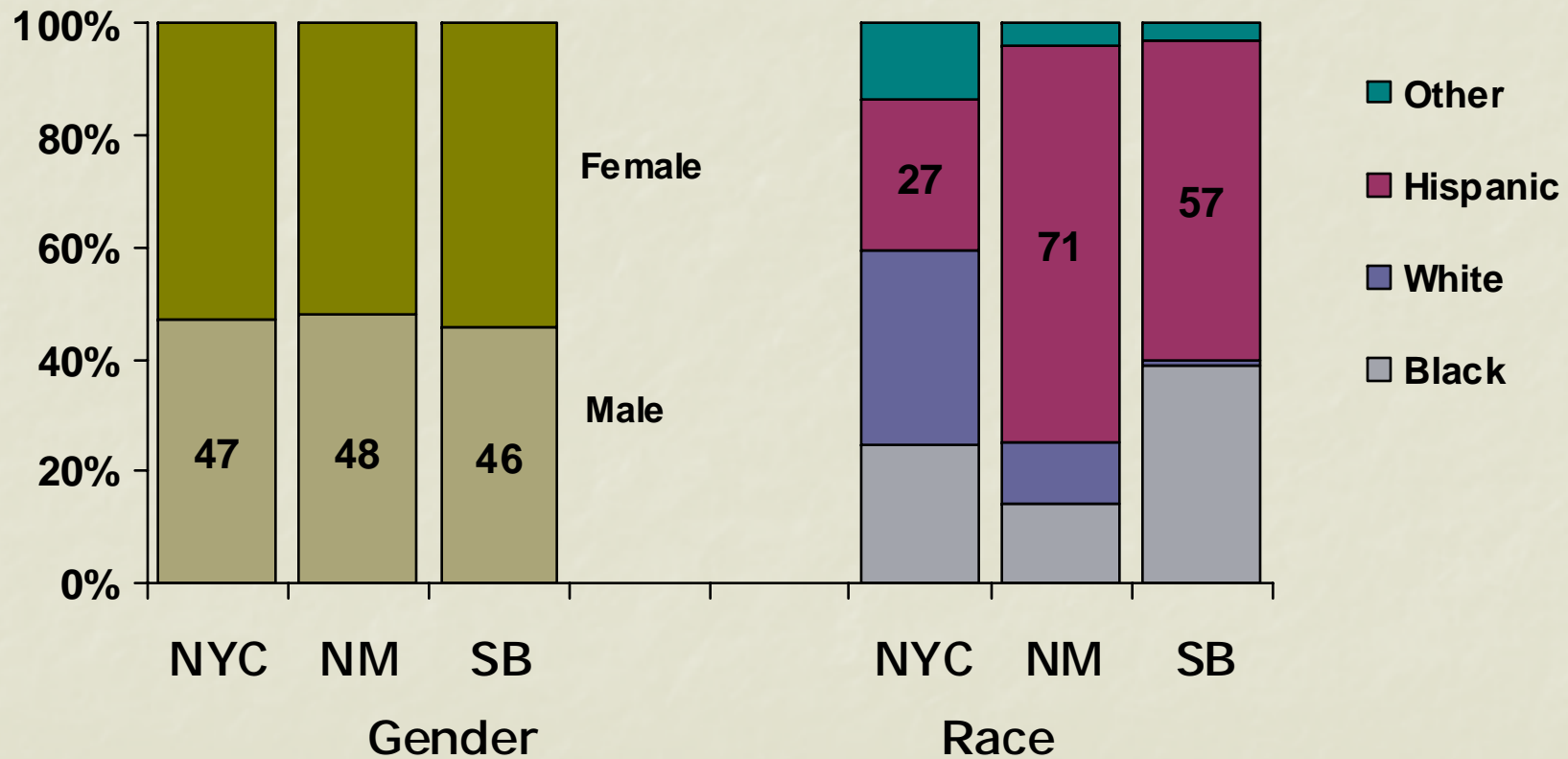
Three data sources:

1. Census
2. Death records from the New York City Department of Health and Mental Hygiene (DOHMH), Office of Vital Statistics
3. Hospitalization data from the Statewide Planning and Research Cooperative System (SPARCS)

New York City Neighborhood Map



Demographic Comparisons: Gender and Race/Ethnicity

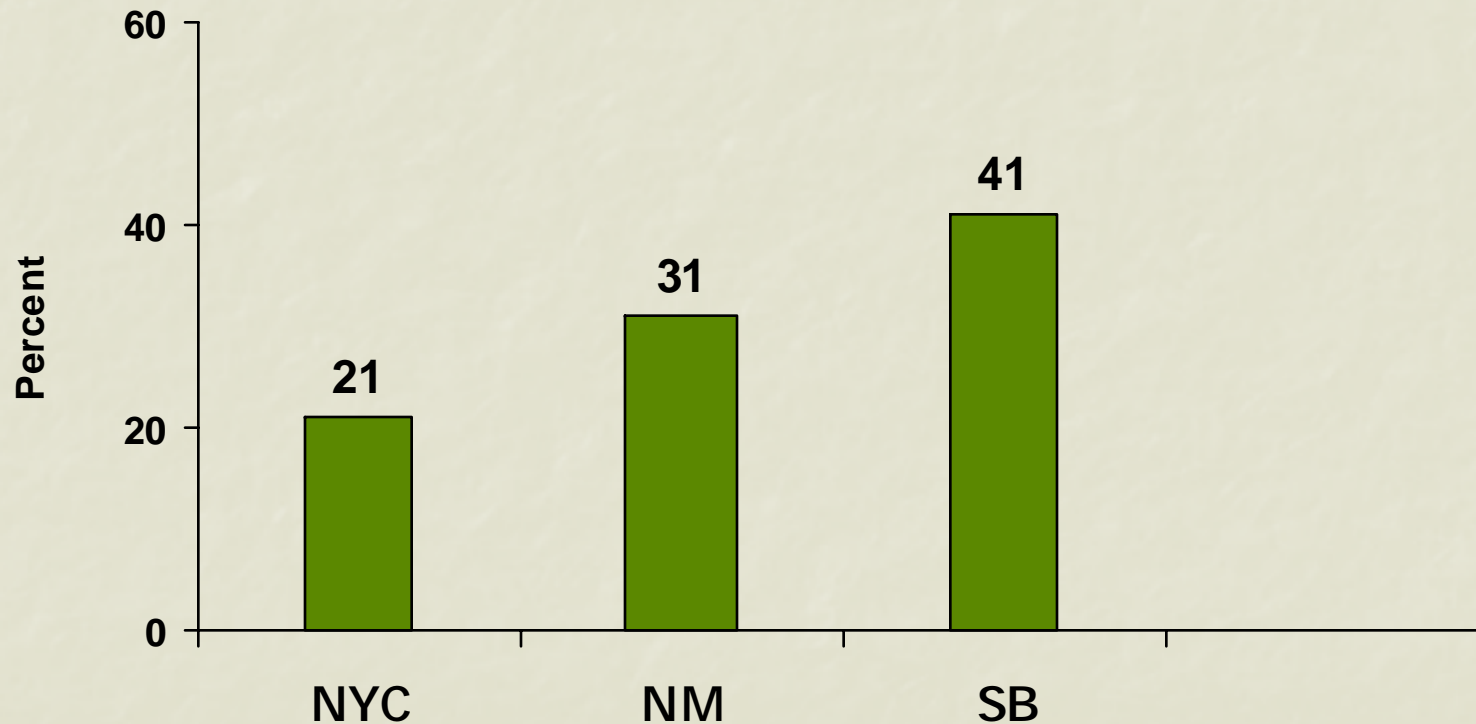


Source: Census 2000

Note: NYC=New York City; NM=Northern Manhattan; SB=South Bronx



Demographic Comparisons (*cont.*): Proportion Below Poverty

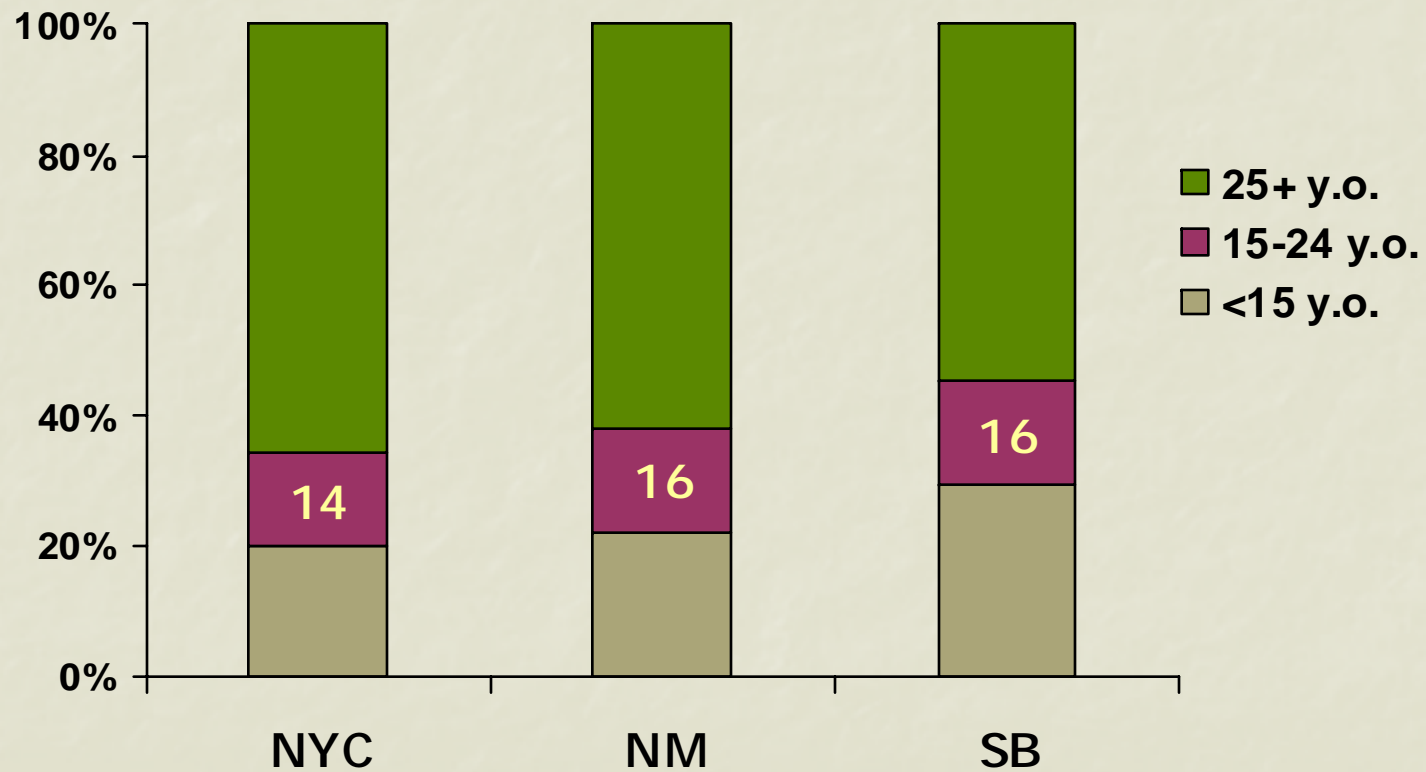


Source: Census 2000

Note: NYC=New York City; NM=Northern Manhattan; SB=South Bronx



Demographic Comparisons: Age



Fatal Violence Among Youth

Homicide Burden in NYC & Selected Neighborhoods: All Ages vs. Youth

		<i>2001-2002</i>			<i>2004-2005</i>		
		NYC	NM	SB	NYC	NM	SB
All ages	N	1,159	46	66	1,050	35	48
Youth	N	364	13	18	350	8	19
(15-24 y.o.)	%	31.4	28.3	27.3	33.3	22.9	39.6



Source: Vital Statistics Mortality Data, NYC DOHMH

Note: NYC=New York City; NM=Northern Manhattan; SB=South Bronx



Homicide Rates among Youth

(Deaths per 100,000)

	2001-2002	2004-2005	% Change
Total			
NYC	16.4	15.8	-4
NM	15.2	9.4	-38
SB	29.4	31.1	+6
Male Youth			
NYC	29.6	28.7	-3
NM	22.7	15.9	-30
SB	51.4	58.8	+7
Female Youth			
NYC	3.4	3.0	-10
NM	7.2	2.4	-67
SB	9.4	9.4	0

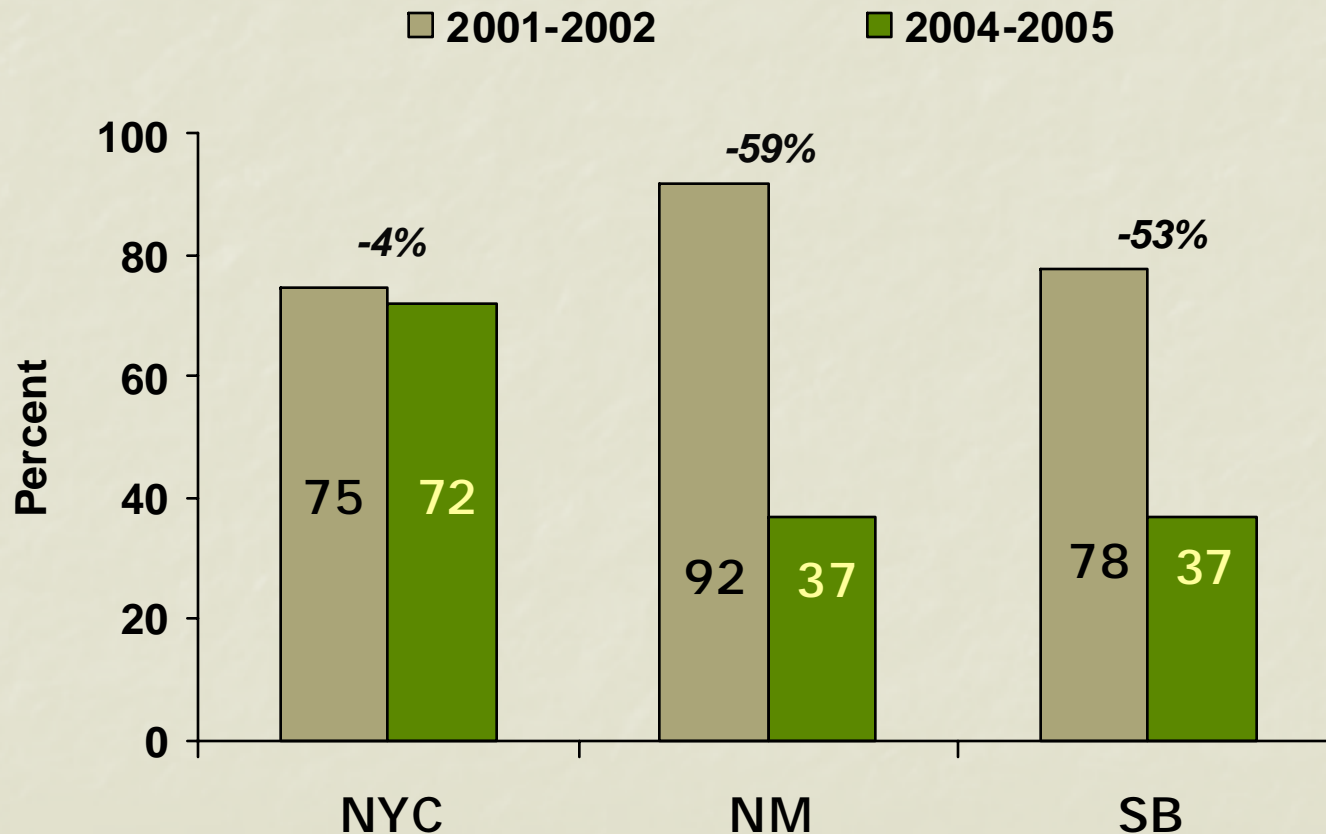
- There was little change in homicide rates citywide and in the South Bronx; Northern Manhattan rates declined by 38 % over time.
- Among male youth, there was little change in rates citywide and in the South Bronx; Northern Manhattan rates declined by 30%.
- Among female youth, there was little to no change in homicide rates citywide and in the South Bronx; rates declined in Northern Manhattan by 67%.



Source: Vital Statistics Mortality Data, NYC DOHMH
 Note: NYC=New York City; NM=Northern Manhattan; SB=South Bronx



Proportion of Youth Homicides by Firearm & Percent Change



Source: Vital Statistics Mortality Data, NYC DOHMH
Note: NYC=New York City; NM=Northern Manhattan; SB=South Bronx



Youth Homicide Rates by Firearms (Deaths per 100,000)

	2001-2002	2004-2005	% Change
Total			
NYC	12.3	11.4	-8
NM	14.0	3.5	-75
SB	22.9	21.3	-7
Male Youth			
NYC	22.8	21.6	-5
NM	22.7	6.8	-70
SB	41.1	41.1	0
Female Youth			
NYC	2.0	1.3	-34
NM	4.8	0	-100
SB	6.2	3.1	-50

- There was little change in youth homicide rates by firearms citywide and in the South Bronx; Northern Manhattan rates declined **significantly** (75%).
- Among male youth, there was little to no change citywide and in the South Bronx; Northern Manhattan rates declined by 70%.
- Among female youth, rates declined citywide, in Northern Manhattan and in the South Bronx.



Source: Vital Statistics Mortality Data, NYC DOHMH
 Note: NYC=New York City; NM=Northern Manhattan; SB=South Bronx



Youth Homicide Rates by Cutting/Piercing Instrument (Deaths per 100,000)

	2001-2002	2004-2005	% Change
Total			
NYC	3.2	3.5	+7
NM	0.0	5.8	n/a
SB	6.5	6.5	0
Male Youth			
NYC	5.9	5.9	0
NM	0	9.1	n/a
SB	10.3	10.3	0
Female Youth			
NYC	0.6	1.1	+71
NM	0	2.4	n/a
SB	3.1	3.1	0

- There was little to no change in homicide rates by cutting/piercing instruments citywide and in the South Bronx; there was an increase in rates in Northern Manhattan.
- Among male youth, there was no change in rates citywide and in the South Bronx. Northern Manhattan rates increased.
- Among female youth, rates increased citywide and in Northern Manhattan; there was no change in the South Bronx.

Non-fatal Violence Among Youth

Assault-Hospitalization Burden in NYC & Selected Neighborhoods: All Ages vs. Youth

		<i>2001-2002</i>			<i>2004-2005</i>		
		NYC	NM	SB	NYC	NM	SB
All ages	N	11,553	393	515	12,608	469	622
Youth	N	4,006	128	184	4,479	173	217
(15-24 y.o.)	%	34.7	32.6	35.7	35.5	36.9	34.9



Source: SPARCS, updated July 2007
Note: NYC=New York City; NM=Northern Manhattan; SB=South Bronx



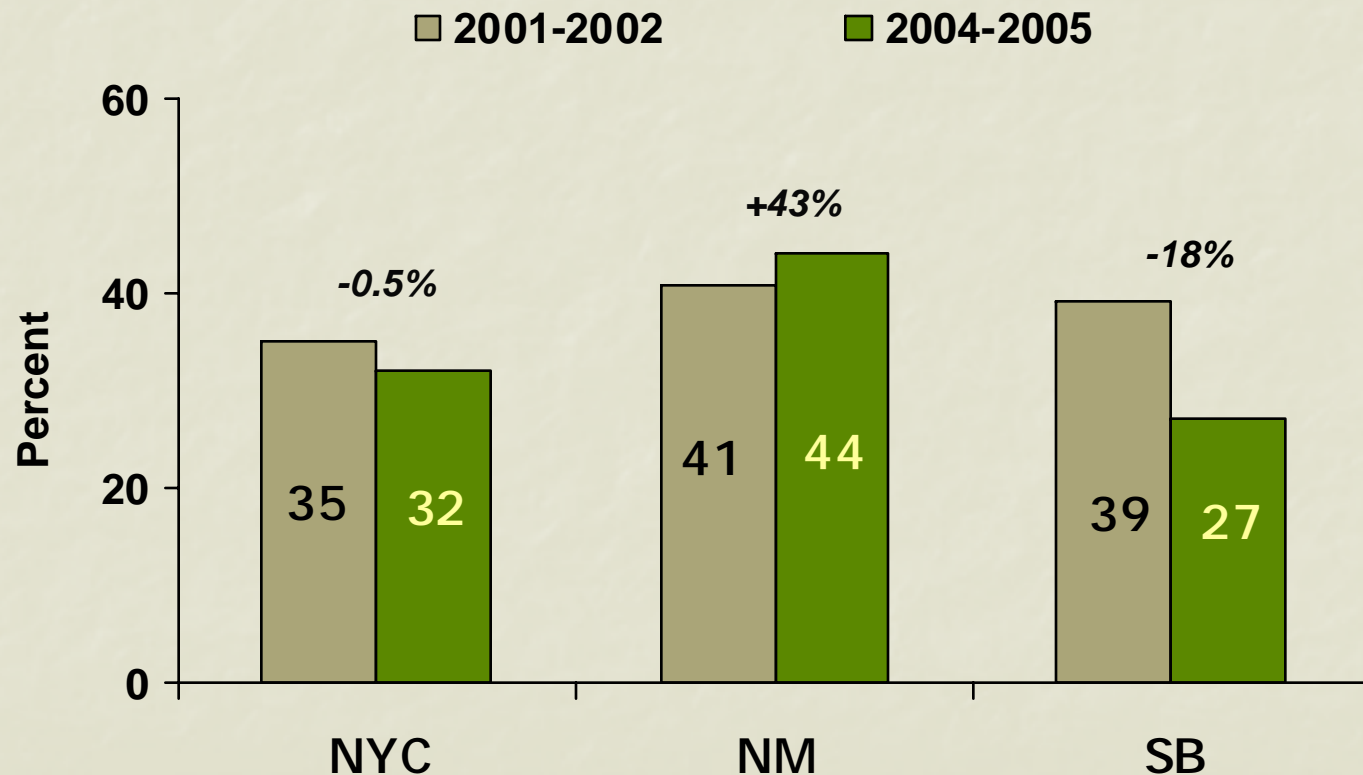
Assault Hospitalization Rates among Youth

(Assault hospitalizations per 100,000)

	2001-2002	2004-2005	% Change
Total			
NYC	180.4	201.7	+12
NM	149.7	202.4	+37
SB	300.8	354.8	+18
Male Youth			
NYC	321.9	355.6	+10
NM	277.4	350.2	+26
SB	534.5	651.0	+22
Female Youth			
NYC	41.2	50.3	+22
NM	14.5	45.8	+217
SB	87.6	84.4	-4

- Assault rates increased citywide, in Northern Manhattan and in the South Bronx.
- Among male youth, rates increased **significantly** citywide, in Northern Manhattan and in the South Bronx.
- Among female youth, rates increased **significantly** citywide (22%) and in Northern Manhattan (217%); there was little change in the South Bronx.

Proportion of Youth Assault Hospitalizations by Cutting/Piercing Instrument and Percent Change



Source: Vital Statistics Mortality Data, NYC DOHMH
Note: NYC=New York City; NM=Northern Manhattan; SB=South Bronx



Youth Assault Hospitalization Rates by Cutting/Piercing Instrument (Assault Hospitalizations per 100,000)

	2001-2002	2004-2005	% Change
Total			
NYC	63.6	63.9	+0.5
NM	62.0	88.9	+43
SB	116.1	94.8	-71
Male Youth			
NYC	120.4	120.3	-0.1
NM	120.5	166.0	+38
SB	219.3	188.4	-14
Female Youth			
NYC	7.8	8.5	+9
NM	0	9.6	n/a
SB	21.9	9.4	-57

- There was little change by cutting/piercing instrument citywide; there was a 40% increase in Northern Manhattan, and a 70% decline in the South Bronx.
- Among male youth, there was little change in rates citywide; there was a 34% increase in Northern Manhattan, and a decline in the South Bronx.
- Among female youth, there was little change citywide but a decline by 57% in the South Bronx and an increase in Northern Manhattan

Youth Assault Hospitalization Rates by Firearms

(Assault Hospitalizations per 100,000)

	2001-2002	2004-2005	% Change
Total			
NYC	38.7	37.7	-2
NM	32.8	26.9	-13
SB	63.8	85.0	+18
Male Youth			
NYC	73.6	70.5	-4
NM	61.4	54.6	-11
SB	123.3	167.9	+36
Female Youth			
NYC	4.5	5.5	+24
NM	2.4	0	-100
SB	9.4	9.4	0

- There was little change in assault rates by firearms citywide, but declined in Northern Manhattan. Assault rates in the South Bronx increased.
- Among male youth, there was little change in rates citywide and in Northern Manhattan, but increased by in the South Bronx
- Among female youth, rates increased citywide, and declined by 100% in Northern Manhattan; South Bronx rates stayed the same.

Summary: Trends in youth violence varied by method and by location.

HOMICIDES:

- Little change homicide rates citywide and in the South Bronx; Northern Manhattan homicide rates declined
- Homicides by **firearms** stable citywide and in the South Bronx except among female youth; Northern Manhattan homicides, significant decline, 75%
- Homicides by **cutting/piercing** stable citywide and in the South Bronx, except among female youth; Northern Manhattan homicides, significant increase among male youth

Summary: Trends in youth violence varied by method and by location.

ASSAULT HOSPITALIZATIONS:

- Citywide, significant rate increase for male and female youth; significant rate increase for female youth in Northern Manhattan
- Assault hospitalizations by **firearm** decreased among Northern Manhattan female youth; increases seen among Northern Manhattan female youth, and South Bronx male youth
- Little change in citywide assault hospitalizations by **cutting/piercing**; decline in the South Bronx & increase in Northern Manhattan

Implications

- Comprehensive surveillance of violence requires local level consideration of fatal and nonfatal incidents.
- Further investigation should target neighborhood-specific factors, such as socioeconomic conditions and access to weapons.