

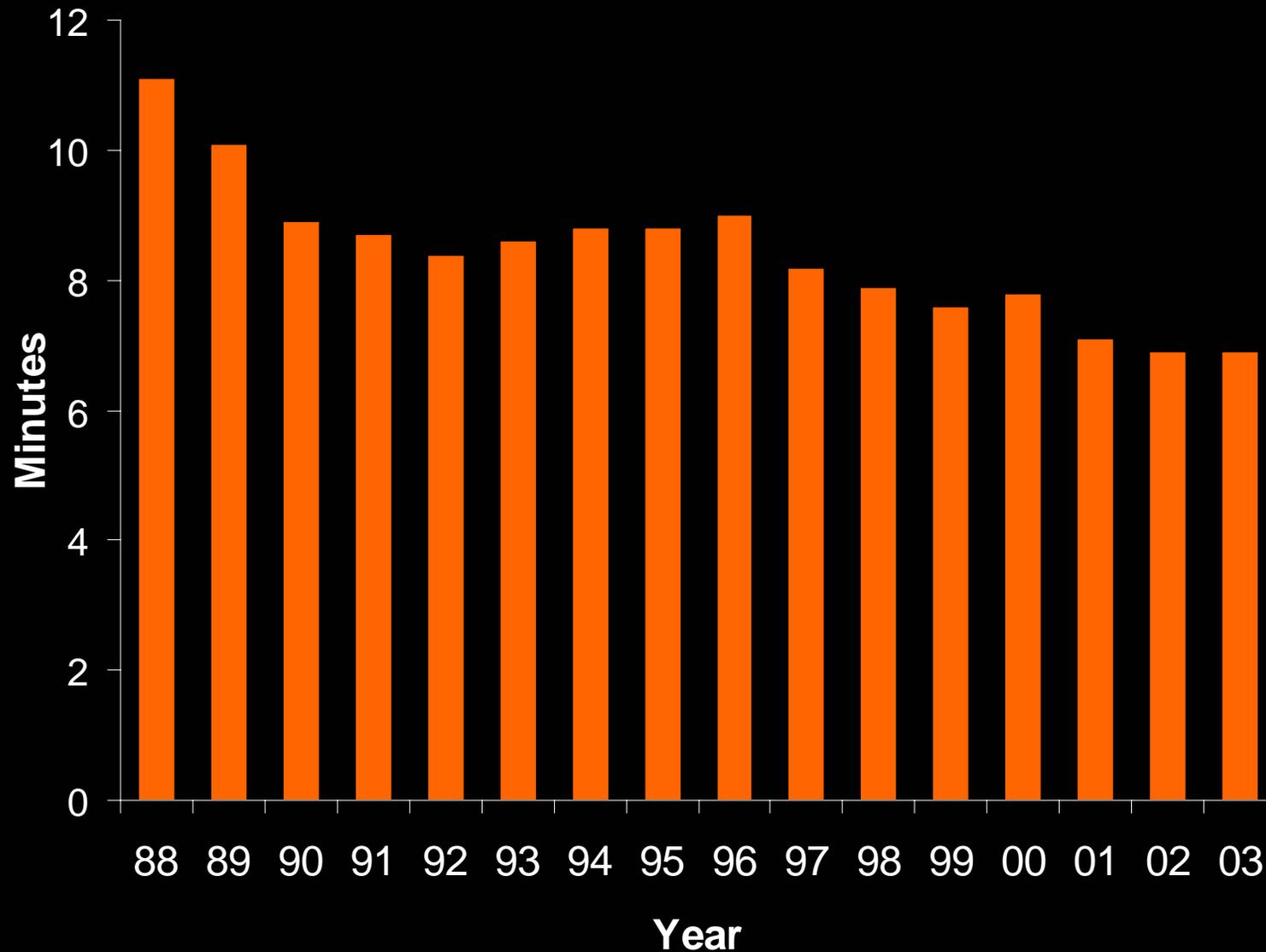
*Pre-Hospital Evaluation of New
York City Cardiac Arrest Study
PHENYCS*

April 1, 2002-March 31, 2003

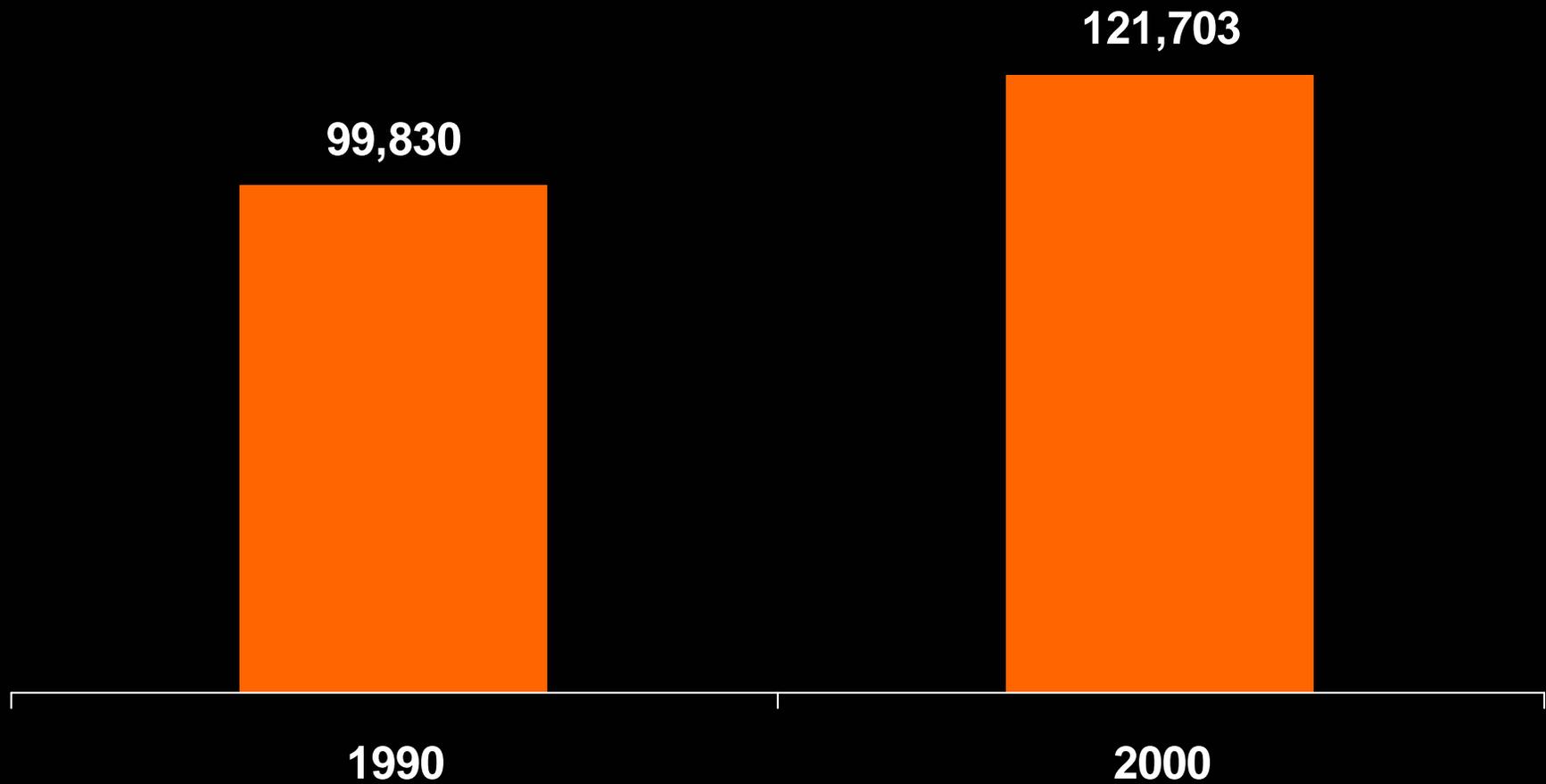
PHENYCS goal

- To compare OOHCA survival in NYC between 1991-92 and 2002-03 following the implementation of a first responder program and the introduction of additional 911 ambulance resources

Reduction in EMS response times to life-threatening medical emergencies



*Over the past 10 years, the number of NYC residents over the age of 85 has grown by 22%**

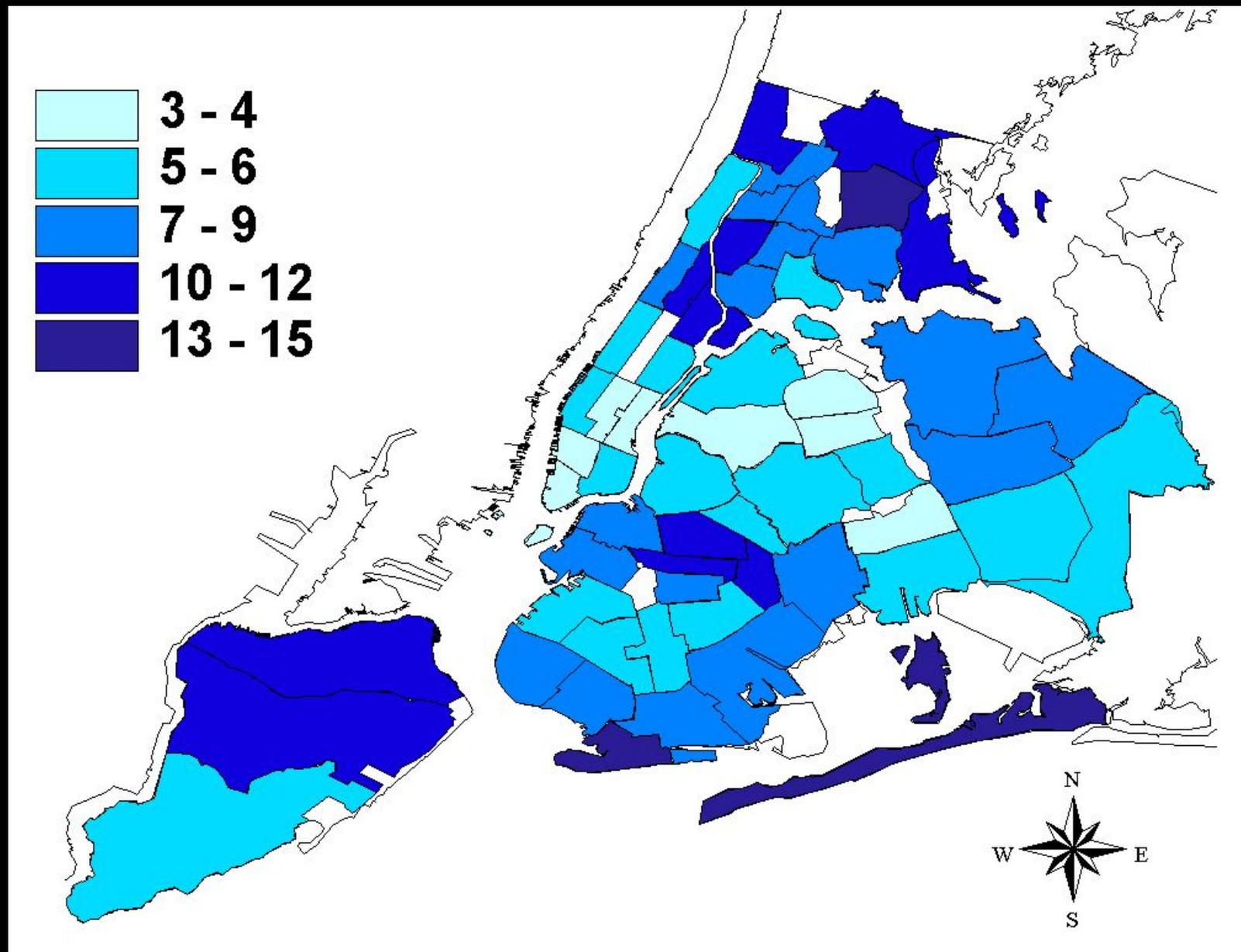


*Source: 1990 US Census, 2000 US Census

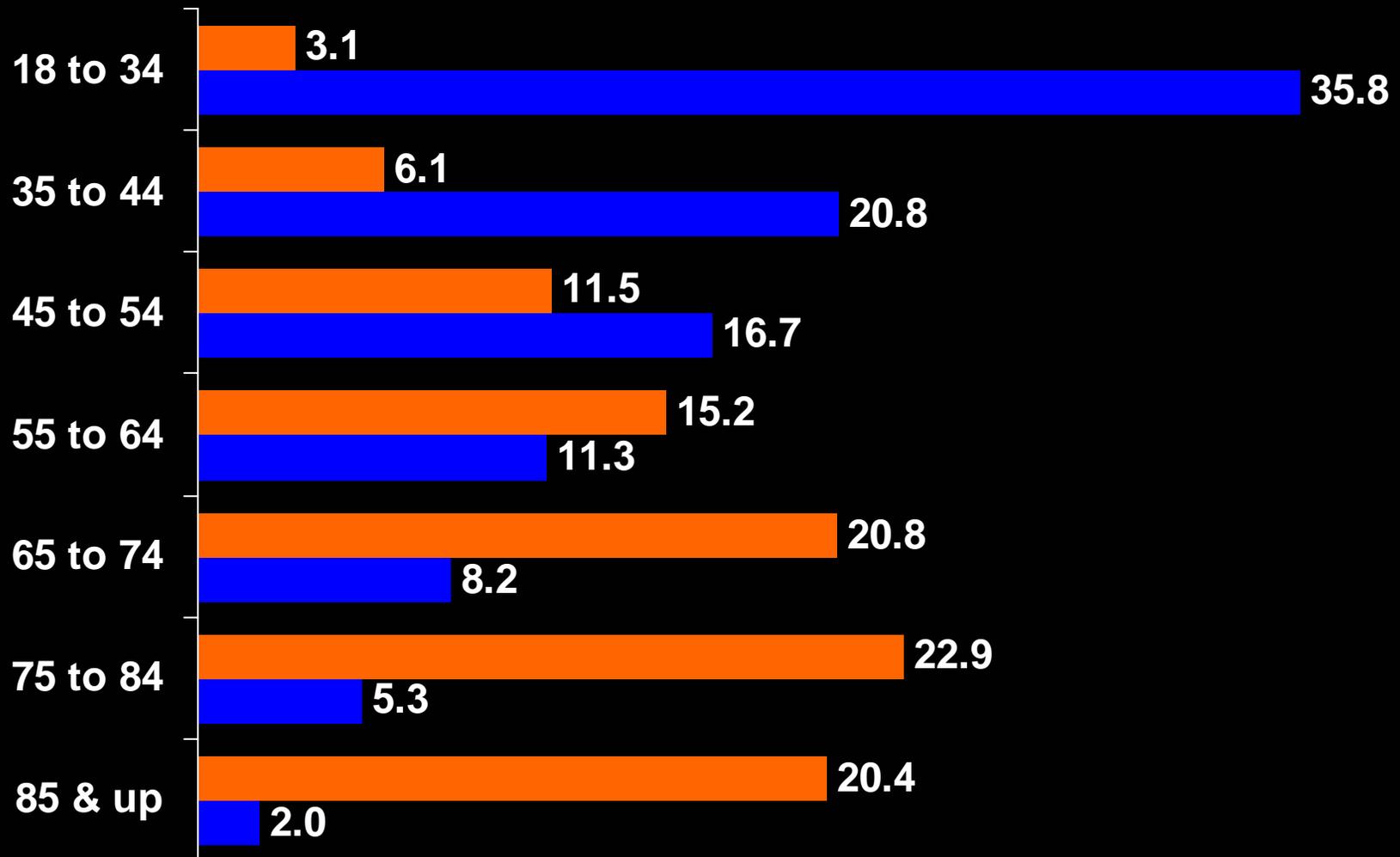
PHENYCS study methods

- Prospective observational study of consecutive patients in NYC.
- April 1, 2002 - March 31, 2003
- Pre-hospital providers were interviewed over the telephone using a validated telephone interview process.
- Information on demographics, Utstein core measures and critical time periods was collected.
- Data merged with (i) FDNY EMS system times (ii) FDNY Quality Assurance System survival data
- Data collected on 6,973 adult cardiac arrests; 4,653 adult cardiac arrests of primary cardiac etiology

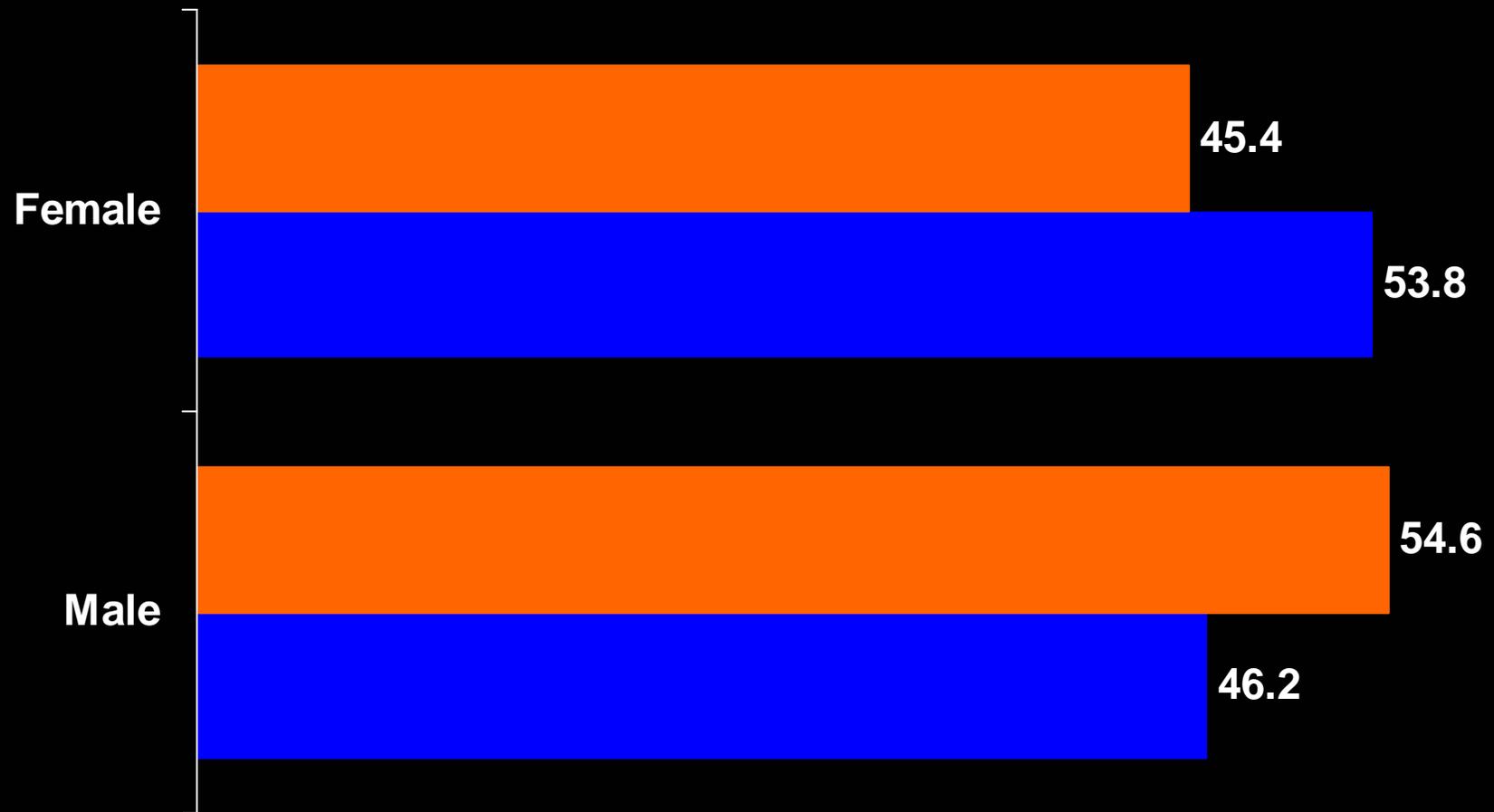
Incidence of OOOCHA per 10,000 CD residents



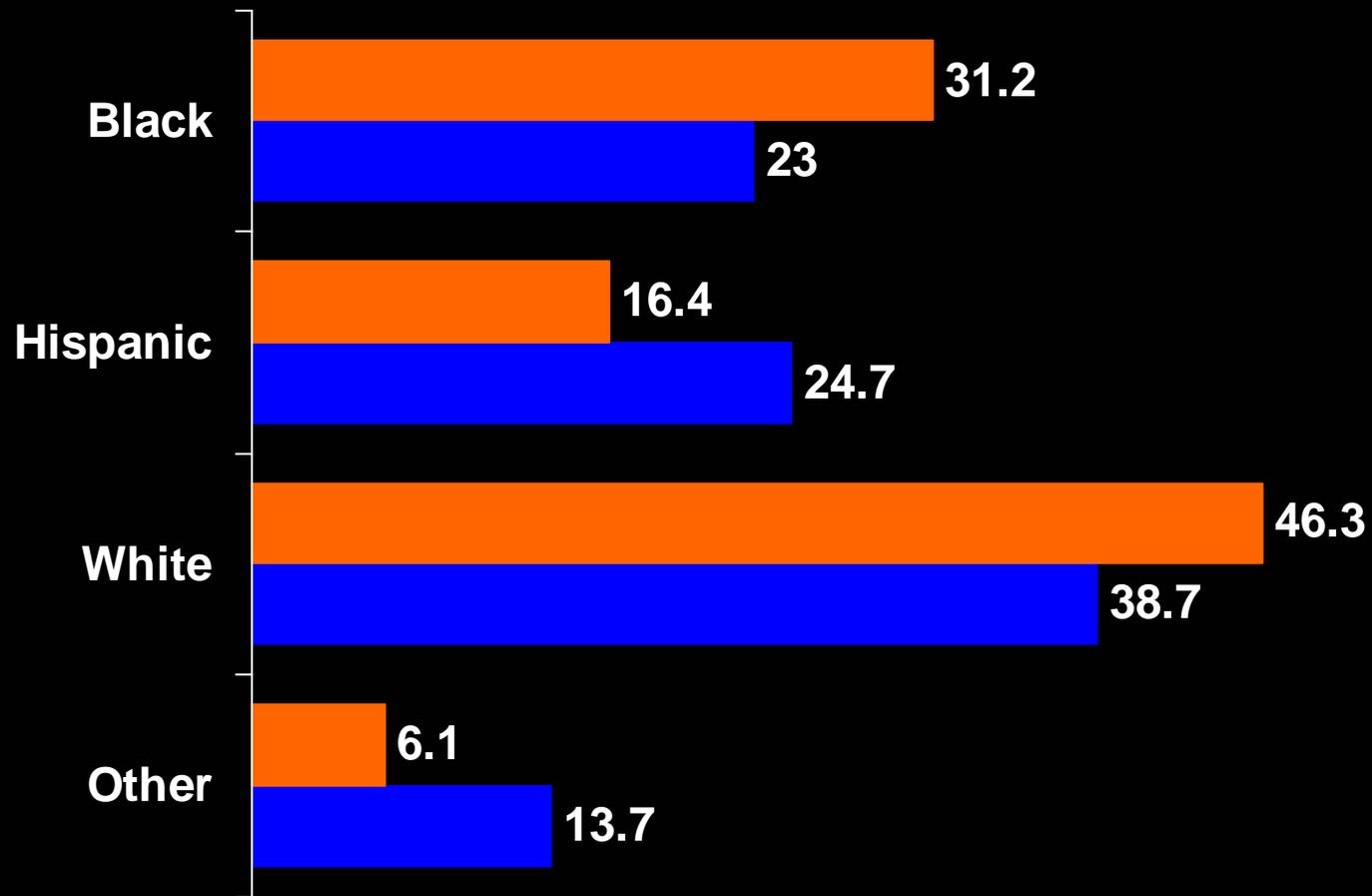
Age (years)- PHENYCS data and NYC



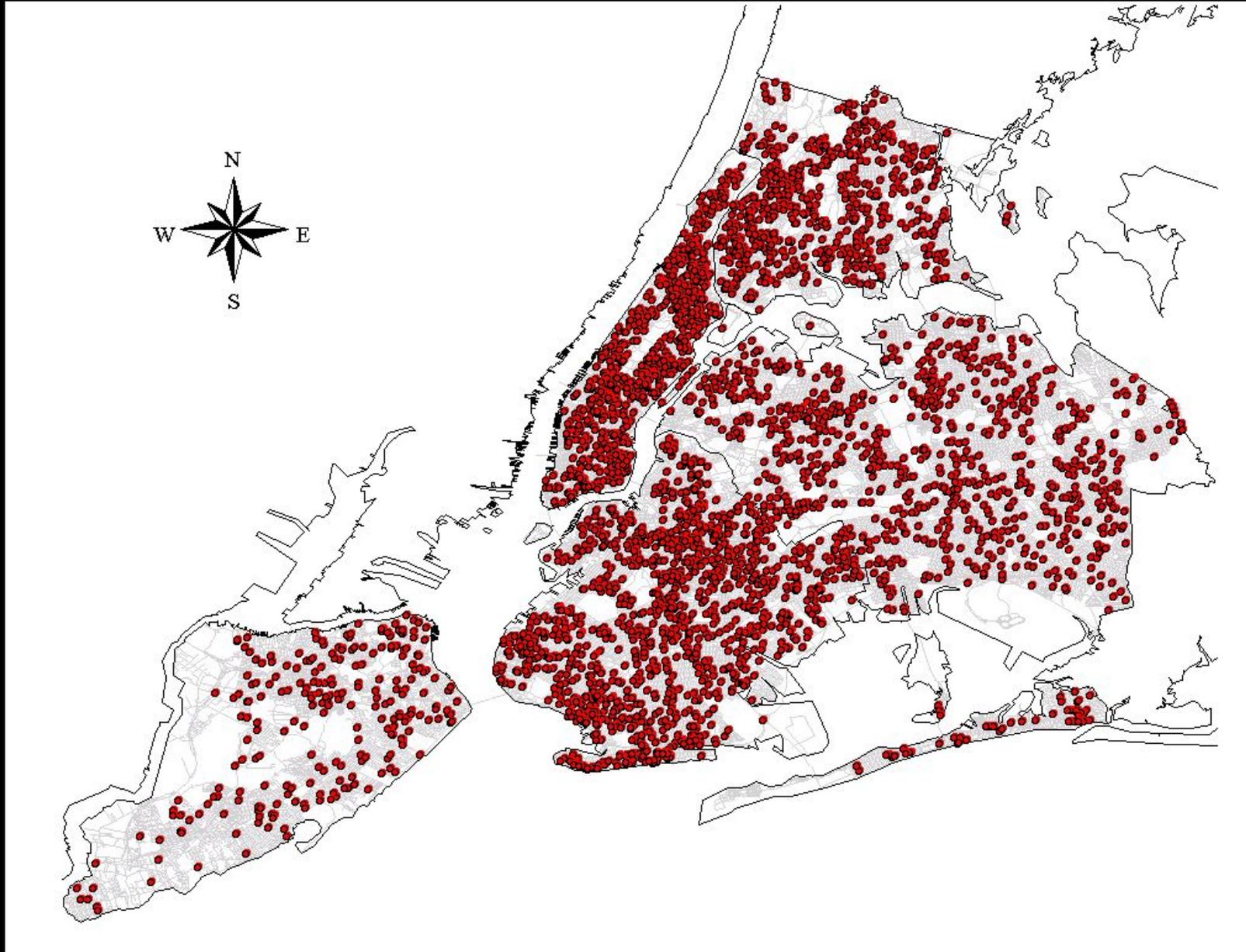
Gender, PHENYCS data and NYC adult population



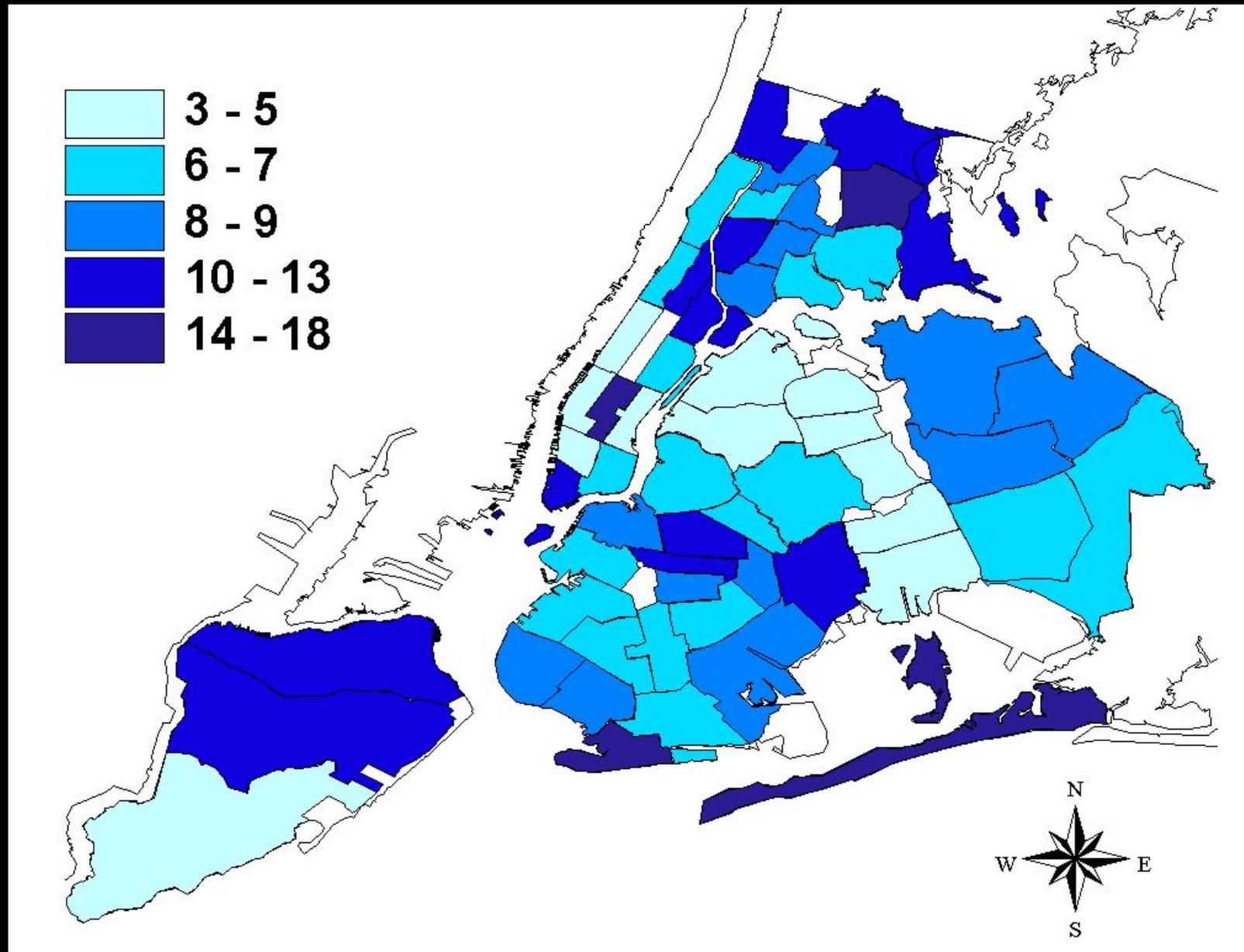
Race/ethnicity



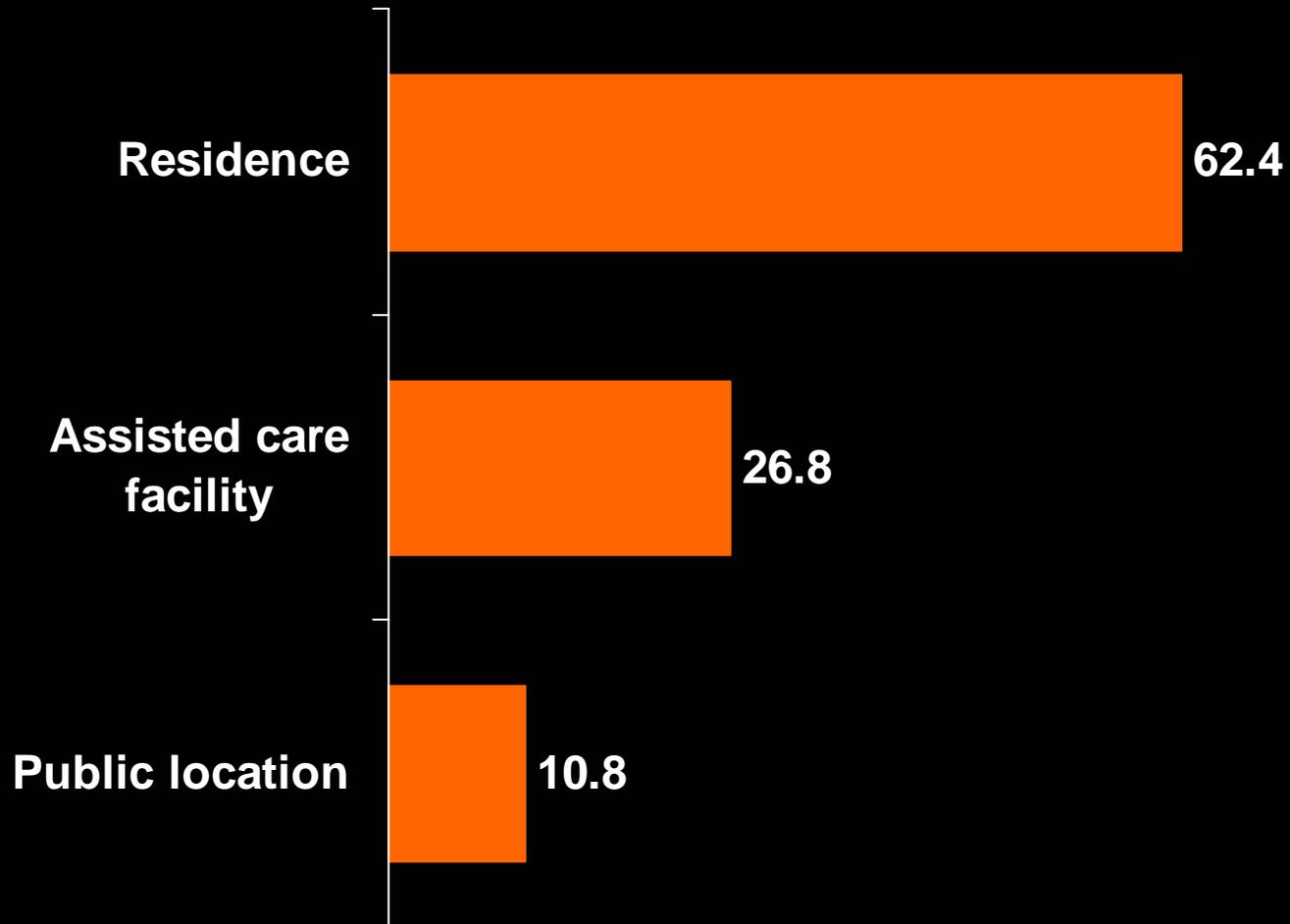
Incident location



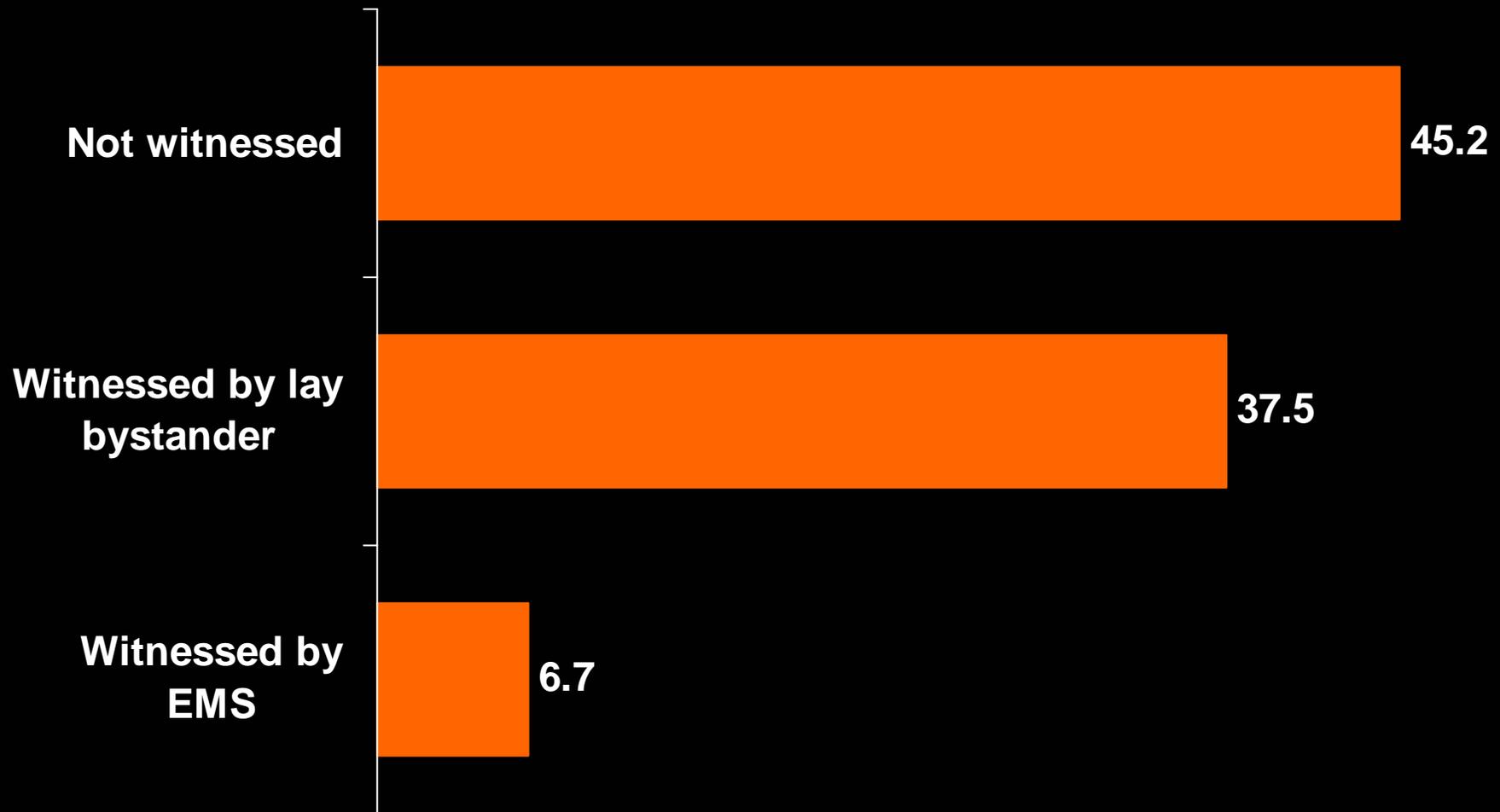
Incidence per CD: number of arrests per 10,000



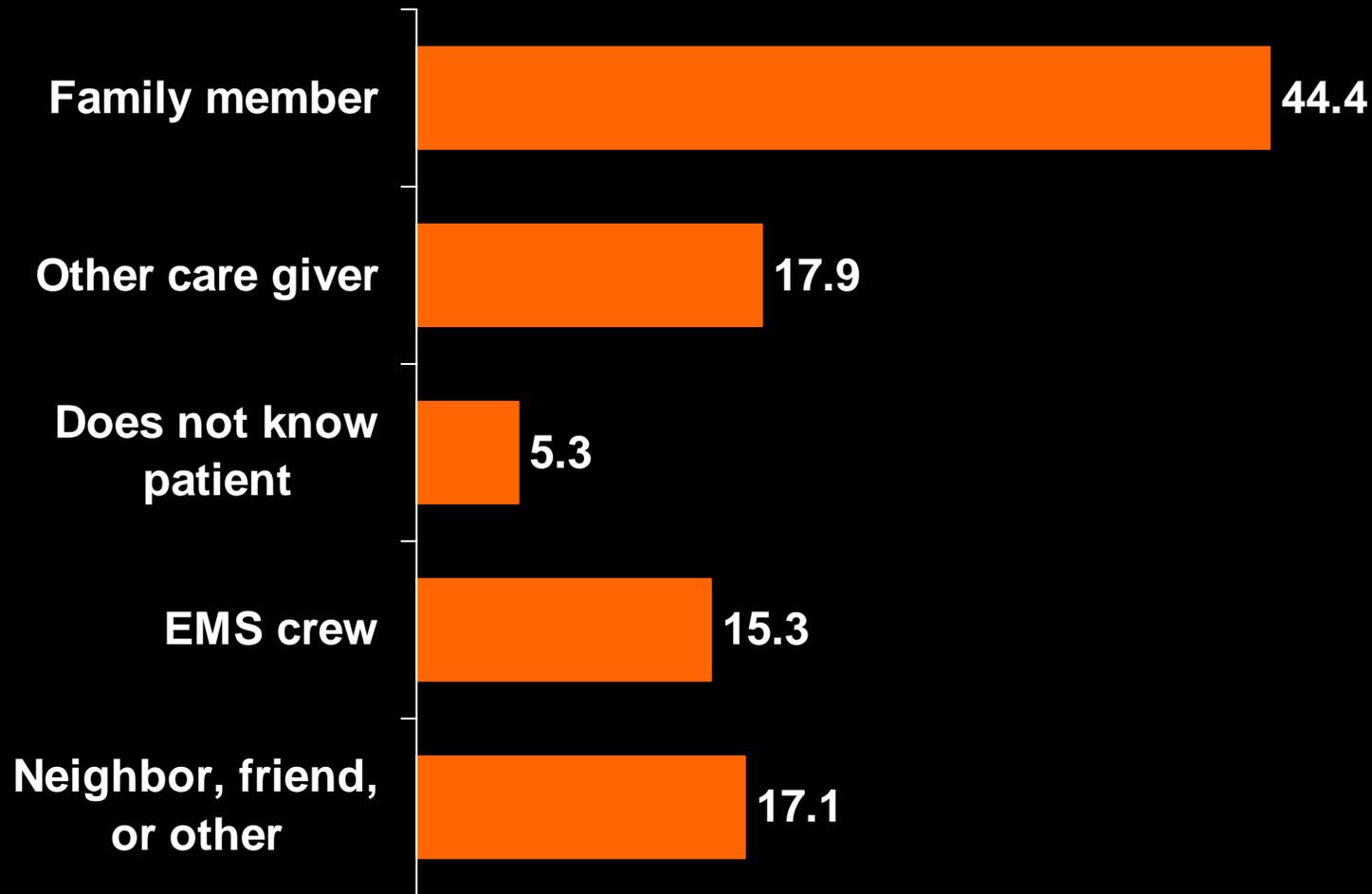
Incident location



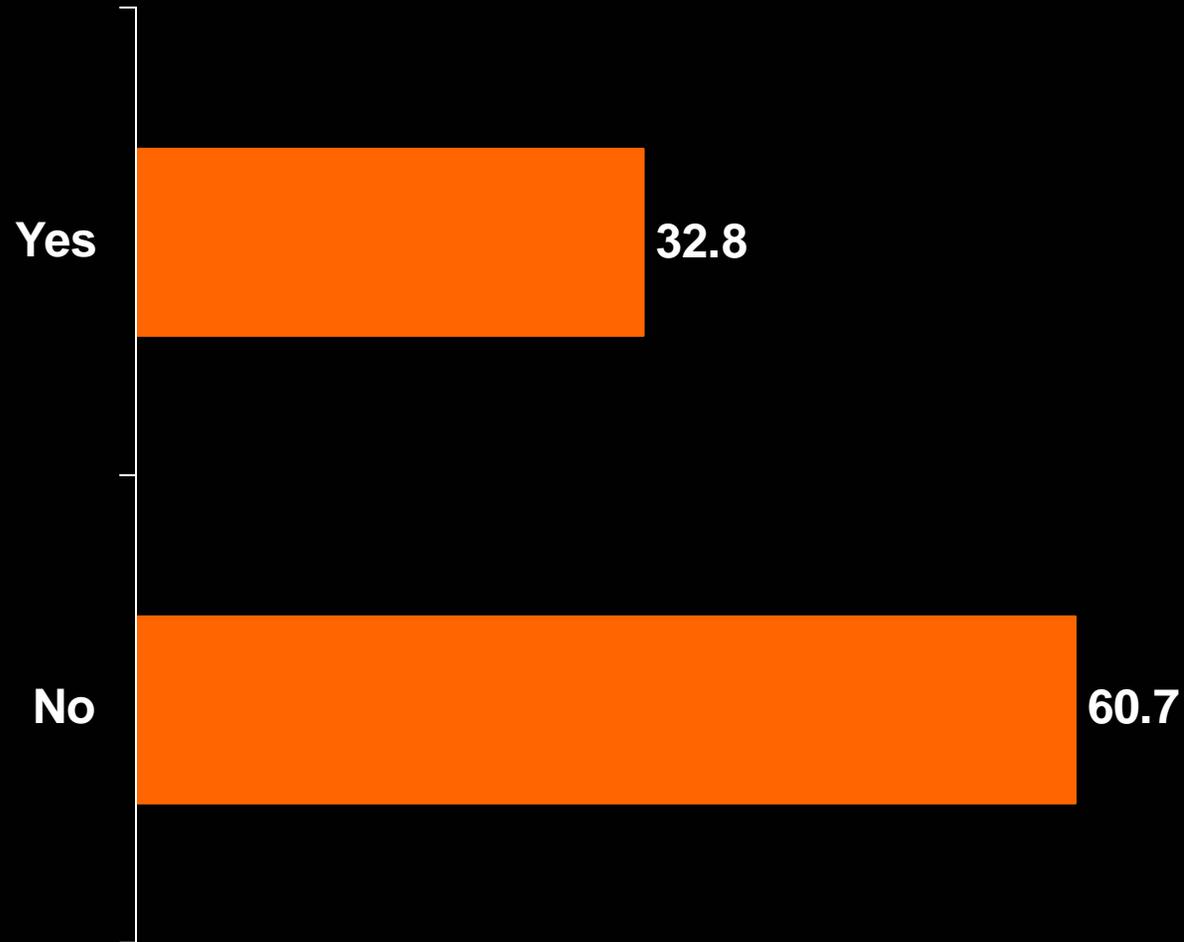
Witnessed arrest



Description of witness (n=2,029)



Bystander CPR



Survival: PHENYCS vs. PHASE (99% CI)

Survival from OOCHA	PHENYCS (2002-2003)
Overall	2.9% (99% CI: 2.3-3.6)
Overall, adjusted*	3.1% (99% CI: 2.5-3.8)
Event prior to EMS arrival	2.2% (99% CI: 1.7-2.9)
Event prior to EMS arrival, adjusted*	2.5% (99% CI: 1.9-3.3)
EMS witnessed event	12.2% (99% CI: 7.7-18.3)

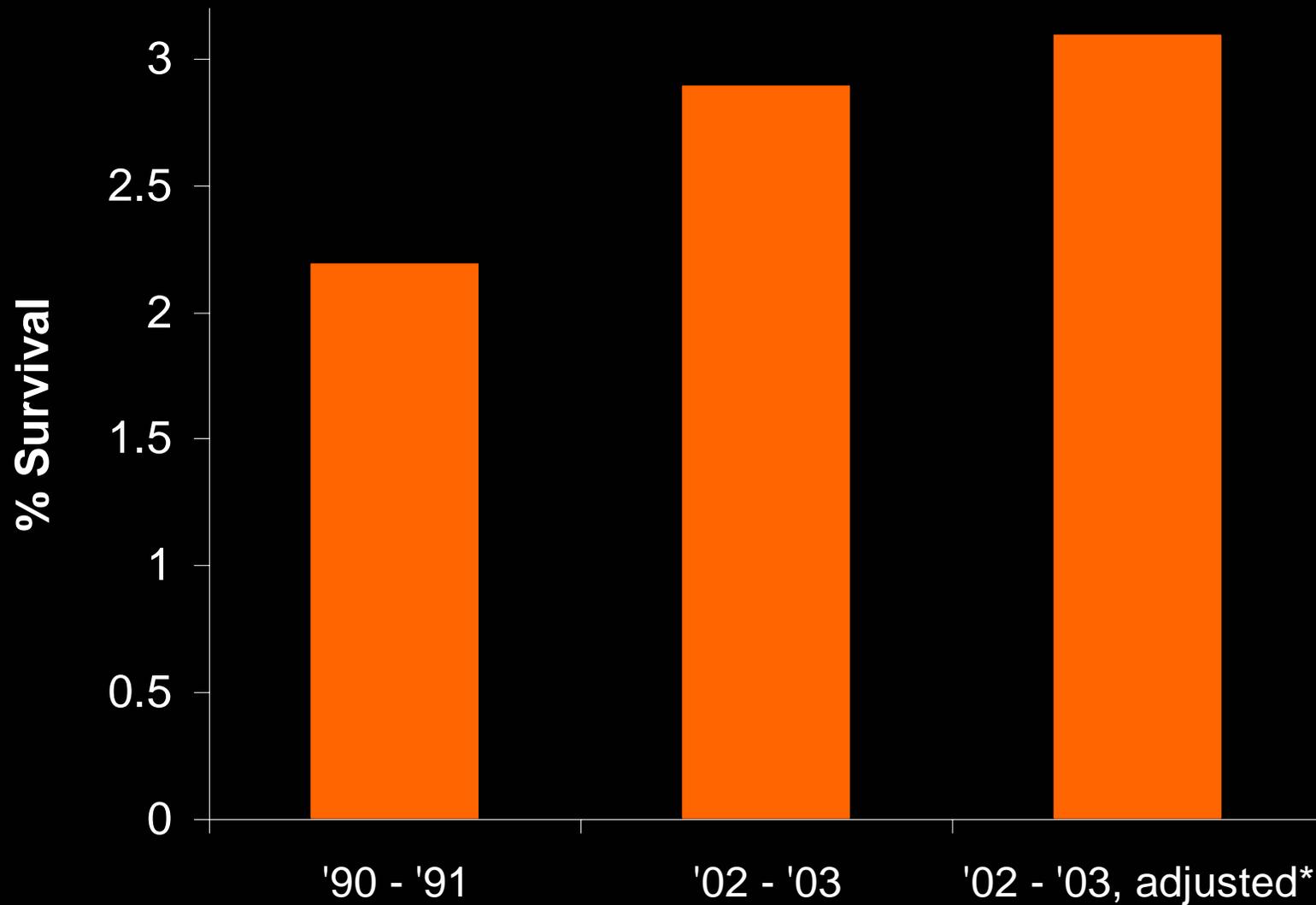
*Adjusted for changes in population structure of NYC over time

Survival: PHENYCS vs. PHASE (99% CI)

Survival from OOCHA	PHENYCS (2002-2003)	PHASE (1990-1991)
Overall	2.9% (99% CI: 2.3-3.6)	2.2% (99% CI: 1.5-3.2)
Overall, adjusted*	3.1% (99% CI: 2.5-3.8)	NA
Event prior to EMS arrival	2.2% (99% CI: 1.7-2.9)	1.4% (99% CI: 0.9-2.3)
Event prior to EMS arrival, adjusted*	2.5% (99% CI: 1.9-3.3)	NA
EMS witnessed event	12.2% (99% CI: 7.7-18.3)	8.5% (99% CI: 4.6-14.4)

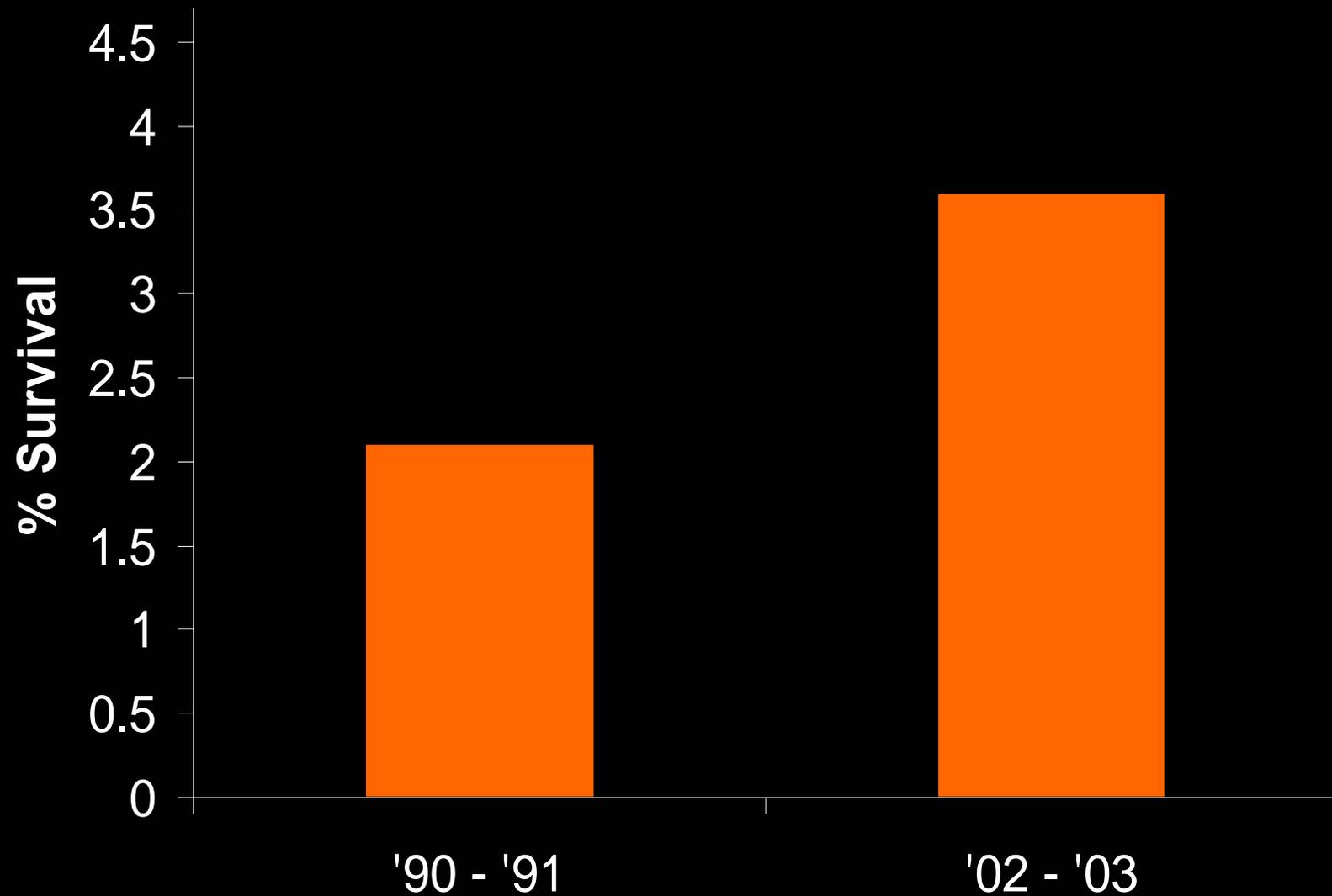
*Adjusted for changes in population structure of NYC over time

Overall survival from OOHCA in NYC has increased since 1990 - 1991



*Adjusted for changes in population structure of NYC over time

Survival from bystander witnessed OOHCA has increased since 1990-1991



Survival from OOOCHA in various locations

Location	Population	Survival	Year
New York, NY	8 million	2.2%	2002, 2003
Chicago, IL	3 million	1.7%	1987
Osaka, Japan	8.8 million	1.8%	1998-2001
Singapore	4.1 million	1.0%	2001, 2002
New Haven, CT	127,000	4%	1988, 1999
Hong Kong, China	1.4 million	1.3%	1999
Helsinki, Finland	516,000	16.6%	1994

Overall presentation summary

- Survival from OOHCA has improved in NYC over the past decade, both overall and in specific groups
- This increase in survival is despite
 - an aging population
 - a decrease in incident shockable rhythm
 - low percent of arrests witnessed by bystanders
 - ongoing low prevalence of CPR