



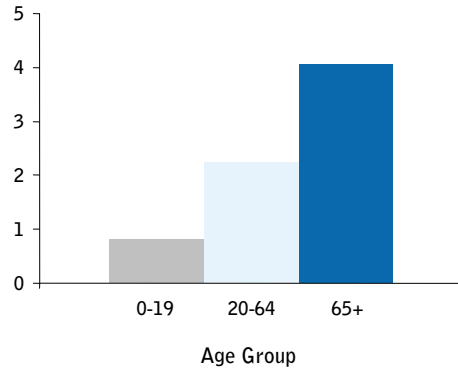
Pedestrian fatalities among the elderly

April 2010

CHS BRIEF

Older adults are more likely than younger pedestrians to be fatally struck by a motor vehicle. In New Jersey, the average rate of pedestrian fatalities among persons 65 and older between 1999-2006 was 4.05 (per 100,000), compared with 0.81 among those under 20 years (Figure 1). Moreover, New Jersey's older pedestrian death rate is higher than the national average (3.57).

Figure 1. Age-adjusted mortality rates among younger and older pedestrians, New Jersey, 1999-2006

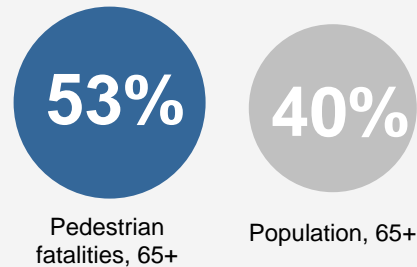


Mortality data: NJDHSS
Population estimates: US Bureau of the Census

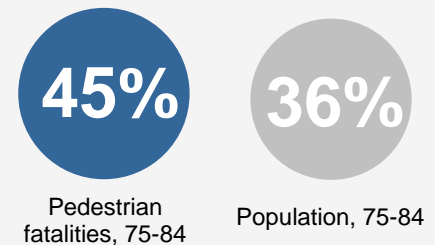
Gender, age, and marital status are significant predictors of older adult pedestrian risk and mortality. Fatally injured older pedestrians are disproportionately male, 75-84 years old, and unmarried, compared to the state's overall older population (sidebar).

Pedestrian deaths in New Jersey are more likely among older adults who are disproportionately....

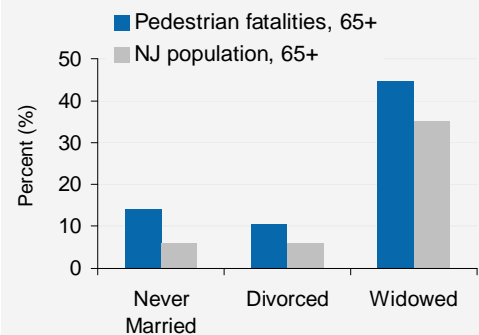
male...



between 75-84 years old...



and not married.



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Population estimates: US Bureau of the Census

Center for Health Statistics

Office of Policy

New Jersey Department of Health & Senior Services

For more information, please contact: chs@doh.state.nj.us

Geography and Spatial Pattern

Pedestrian mortality rates are higher in densely populated areas where pedestrian activity and traffic volumes are greater compared to low-density, rural areas. Counties were classified as having low, medium, or high population density, as shown in Table 1. As can be seen, the counties in the high density group have the highest mortality rate. However, in order to more objectively compare pedestrian crash rates between areas of different population density, pedestrian mortality rates were adjusted to account for walking behavior. While there is no available county-level measure of walking among seniors, Census data on walking behavior was used to adjust rates. When adjusted, the difference between the more-densely



Table 1. Older pedestrian fatality totals and rates, by county and population density group, New Jersey, 1999-2006

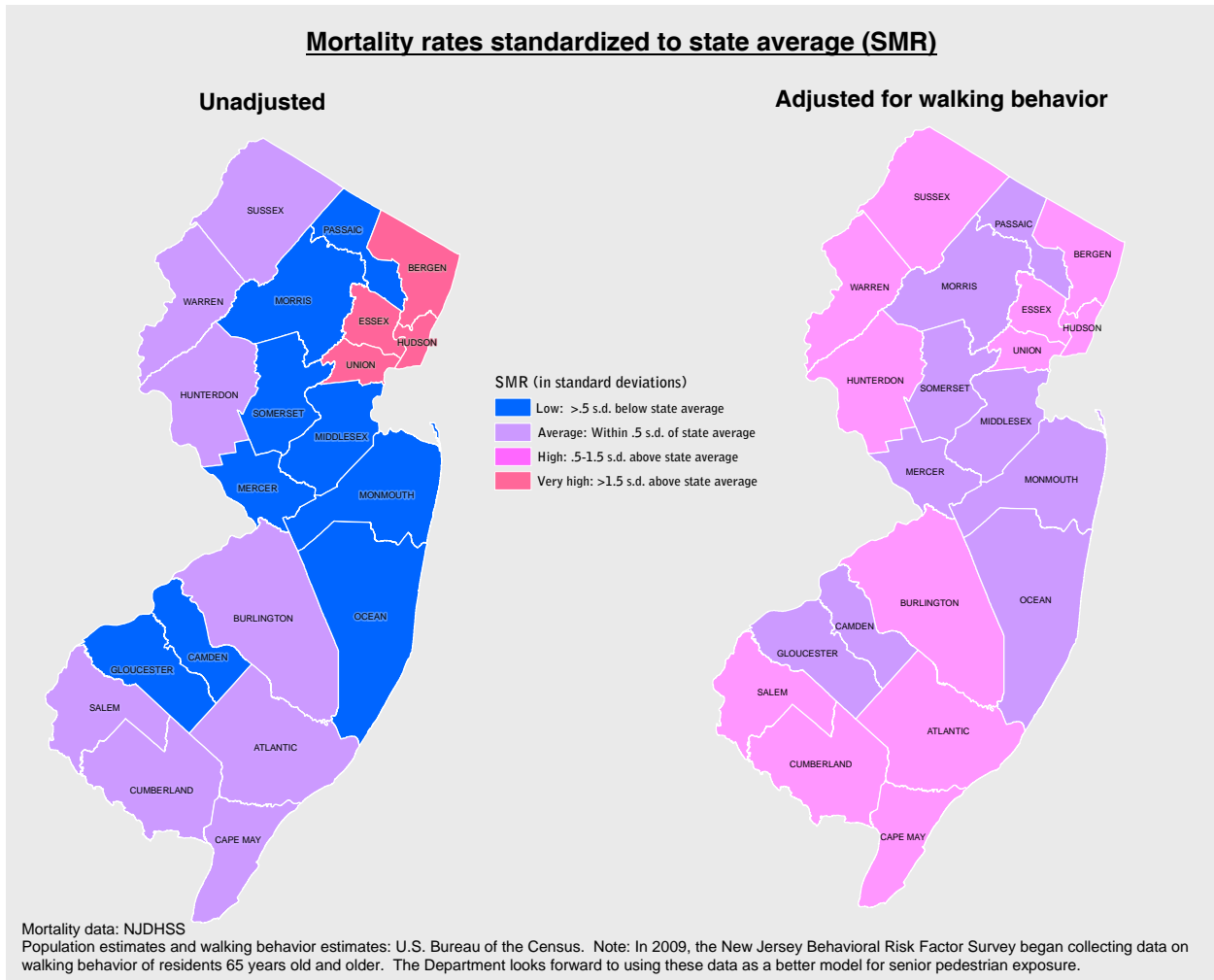
Population Density Group (persons per square mile)	County	Pedestrian fatalities, 65+ (No.)	Mortality Rate
Low (under 660)	Atlantic	14	4.9
	Burlington	11	2.5
	Cape May	8	4.9
	Cumberland	8	5.3
	Hunterdon	2	1.8
	Salem	4	5.4
	Sussex	1	0.9
	Warren	2	1.8
Low Total		50	3.5
Medium (660-3,600)	Camden	17	3.4
	Gloucester	7	2.8
	Mercer	15	4.3
	Middlesex	27	3.6
	Monmouth	17	2.7
	Morris	10	2.2
	Ocean	20	2.2
	Passaic	20	4.3
Somerset	5	1.8	
Medium Total		138	3.0
High (more than 3,600)	Bergen	69	6.5
	Essex	39	5.3
	Hudson	34	6.3
Union	33	5.9	
High Total		175	6.0
State of New Jersey		363	4.05

Mortality data: NJDHSS
Population estimates: US Bureau of the Census

populated counties and the less-densely populated counties is reduced (Figure 2). Therefore, even though older pedestrian fatalities are concentrated in New Jersey's most densely populated areas, this would seem to be related to the fact that seniors walk more in these areas, and therefore, have greater exposure to being struck by a motor vehicle.

Older pedestrians are at above average risk for injury for a number of reasons, including delayed reaction time, diminished vision and hearing, and slower gait. As the population ages in New Jersey, the number of older pedestrians will increase. While walking has

Figure 2. Standardized Mortality Ratio (SMR) for older pedestrians by population density, New Jersey, 1999-2006: Unadjusted and adjusted for walking behavior



valuable health benefits for seniors, and in many cases allows for greater independence, there are a number of measures that can be taken to reduce injuries while facilitating pedestrian activity. Environmental modifications to existing roadways, including lengthening crosswalk times, sidewalk installation programs, and in some cases constructing pedestrian bridges or tunnels are some of the leading approaches. In New Jersey, a multi-agency Pedestrian Safety Initiative has been underway since 2006, with the goal of improving pedestrian safety through engineering, education, and enforcement. The engineering activities

focus on identifying dangerous intersections and recommending roadway modifications, including sidewalk installation. Education and enforcement components target high risk pedestrians and drivers, and emphasize the fact that pedestrian safety is a shared responsibility.

For further information on senior pedestrian safety initiatives and planning resources in New Jersey, please consult the following website:

- New Jersey FIT: Future In Transportation http://www.state.nj.us/transportation/work_s/njfit/case/ssi.shtm