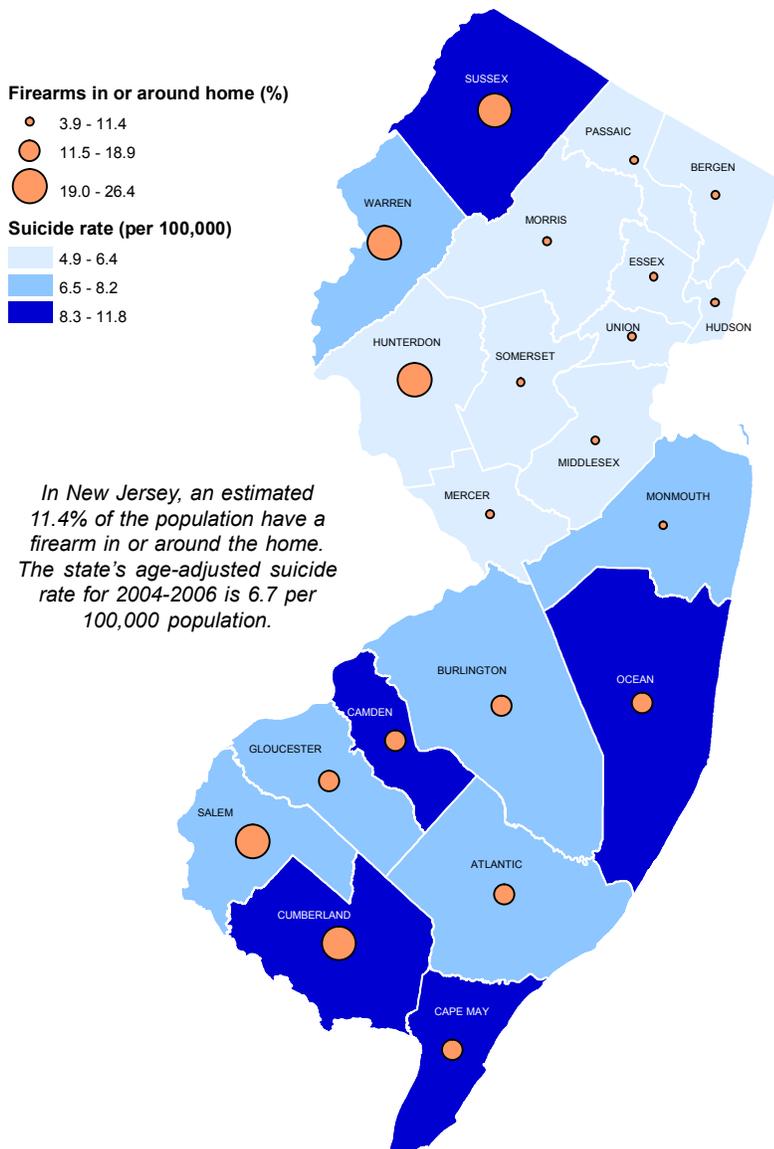


# Suicide and firearm ownership, New Jersey, 2004-2006 UPDATE



*An Office of Injury Surveillance and Prevention Brief -- October 3, 2008*

**Percentage with a firearm\* in or around home and age-adjusted suicide rate†, by county, New Jersey 2004-2006**



The relationship between firearm prevalence and suicide has been well established in a number of national studies,<sup>1,2</sup> and the national decline in suicide rates over the past several decades has been associated with a simultaneous decline in firearm ownership.<sup>3</sup> Restricting access to lethal means has proven to be an important component of suicide prevention efforts worldwide.<sup>4</sup>

New Jersey has relatively low rates of both suicide and gun ownership, but they are correlated at the county level ( $r = .51$ ). Counties with higher rates of gun ownership tend to be located in the South or Northwestern part of the state. In general, these counties have above average suicide rates, and the percent of suicides committed with a firearm in these counties is also above average. Male suicide rates are more sensitive to firearm prevalence because males are more likely than females to use firearms as a mechanism.

There is a clear spatial pattern to suicide in New Jersey, with more urbanized areas having lower rates and more rural counties having higher rates. This is consistent with national patterns, where suicide rates are generally highest in states with the lowest population density such as Wyoming, Montana and Alaska (CDC, WISQARS).



Heather Howard  
Commissioner



Jon S. Corzine  
Governor

**New Jersey Department of Health and Senior Services  
Office Policy  
Center for Health Statistics  
Office of Injury Surveillance and Prevention**

## Suicide rates and firearm ownership, New Jersey, 2004-2006

	Suicide		Firearm	Firearm Suicide	
	N	Rate	Ownership %	N	% Suicides
Atlantic	65	7.9	12.3	17	26.2
Bergen	183	6.4	10.4	39	21.3
Burlington	98	7.0	16.0	34	34.7
Camden	153	9.7	13.2	44	28.8
Cape May	36	11.8	18.3	12	33.3
Cumberland	42	9.0	19.9	13	31.0
Essex	126	5.3	8.3	20	15.9
Gloucester	66	7.7	16.6	26	39.4
Hudson	94	5.2	3.9	17	18.1
Hunterdon	25	6.3	23.4	6	24.0
Mercer	69	6.2	10.5	16	23.2
Middlesex	130	5.4	9.3	33	25.4
Monmouth	143	7.4	8.9	44	30.8
Morris	92	6.0	10.5	27	29.3
Ocean	160	9.4	12.5	51	31.9
Passaic	77	5.2	9.0	23	29.9
Salem	14	**	26.4	7	50.0
Somerset	61	6.4	10.4	12	19.7
Sussex	40	8.9	22.2	18	45.0
Union	81	4.9	8.0	25	30.9
Warren	28	8.2	24.6	11	39.3
Unknown	1	-	-	-	-
<b>New Jersey Total</b>	<b>1,784</b>	<b>6.7</b>	<b>11.4</b>	<b>495</b>	<b>27.7</b>

Data sources: New Jersey Violent Death Reporting System, v.09/23/2008; New Jersey Behavioral Risk Factor Survey, 2004; NCHS for bridged-race population estimates.

\*\*Rates based on less than 20 observations are not presented.

\*Firearms include pistols, shotguns, and rifles. Excluded are BB guns, starter pistols, and guns that cannot fire. Also included are weapons kept in a garage, outdoor storage area, or motor vehicle.

†All ages are included in rates.

The New Jersey Violent Death Reporting System (NJVDERS) is a CDC-funded surveillance system, a collaborative effort of the Center for Health Statistics of the New Jersey Department of Health and Senior Services and the Violence Institute of New Jersey at the University of Medicine and Dentistry of New Jersey. The project seeks to help researchers determine the circumstances and risk factors associated with suicide and other violent deaths by linking timely data from multiple detailed sources. Firearm ownership data is from the New Jersey Behavioral Risk Factor Survey, age-adjusted prevalence estimates, 2004.

<sup>1</sup>M Miller, SJ Lippmann, D Azrael, and D Hemenway. Household firearm ownership and rates of suicide across the 50 United States. *Journal of Trauma-Injury Infection & Critical Care*. April 2007; **62**(4):1029-1035.

<sup>2</sup>M Miller and D Hemenway. Guns and suicide in the United States. *The New England Journal of Medicine*. 2008; **359**(10):989-991.

<sup>3</sup>M Miller, D Azrael, L Hepburn, D Hemenway and SJ Lippmann. The association between changes in household firearm ownership and rates of suicide in the United States, 1981–2002. *Injury Prevention*. 2006; **12**:178-182.

<sup>4</sup>JJ Mann, A Apter, J Bertolote, et al. Suicide prevention strategies: a systematic review. *Journal of the American Medical Association*. 2005; **294**(16):2064-2074.

Other factors in addition to firearm prevalence may be related to the spacial pattern of suicide rates. Perhaps low density places are more likely to attract and retain residents with relatively poor psychological well-being. At-risk individuals in low population density areas may be less willing to seek out and less likely to receive adequate treatment for mental illness, alcohol abuse, and other factors that increase the risk of suicide.

The link between gun ownership and suicide in New Jersey provides an opportunity for prevention efforts based on the premise that those with a gun in their household are at elevated risk for suicide and includes gun owners and their spouses and children, or anyone with access to the home. Hunting and shooting clubs, and other gun-related organizations can provide members with suicide prevention information. The use of trigger locks and lock boxes by gun owners should be encouraged. Law enforcement agencies in jurisdictions with high gun ownership rates can provide information on gun safety and suicide prevention. Health professionals in these areas can inform patients and their families about risks associated with keeping a firearm in the home.



The New Jersey Violent Death Reporting System is supported by Cooperative Agreement U17/CCU222395 from the Centers for Disease Control and Prevention (CDC).