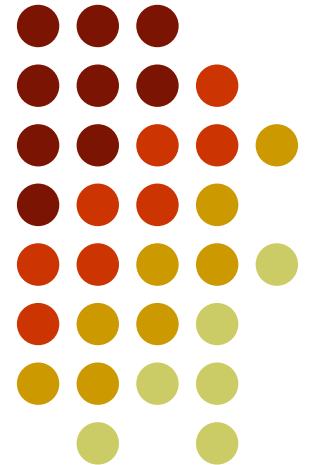


New Jersey Violent Death Reporting System

Surveillance to help prevent violent deaths

November 30, 2006

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Definition of violence

Violence - “the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community,”
World Health Organization.

- Suicides
- Homicides
- Deaths from legal intervention (a subtype of homicide)
- Injury deaths from undetermined intent
- Unintentional firearm fatalities

Introduction



- National Violent Injury Statistics System (NVISS)
 - Started in 1990's at Harvard School of Public Health in collaboration with University of Wisconsin Medical College Firearm Injury Center
 - Several cities and Allegheny County, PA
- CDC worked with NVISS to take program national



Introduction

- Center for Health Statistics
New Jersey Department of Health & Senior Services
(OISP established in early 2005)
- Violence Institute of New Jersey
University of Medicine and Dentistry of New Jersey
- Collaborated to apply for grant summer 2002,
awarded first round
- 2003-2007 data (five-year funding)



Introduction

17 states awarded grants 2002-2004:

- Alaska
- California
- Colorado
- Georgia
- Kentucky
- **Massachusetts**
- **Maryland**
- North Carolina
- **New Jersey**
- New Mexico
- Oklahoma
- **Oregon**
- Rhode Island
- **South Carolina**
- Utah
- **Virginia**
- Wisconsin

Bold states were the original 6 pilot states



Definition of an incident

- A violent injury **death** occurring during the surveillance year.
- A body **found** during the surveillance year with an unknown date of death.
- Multiple deaths included in same incident if fatal injuries occur **within 24 hours** of first fatal injury.
 - Murder-suicides
 - Mass murders
 - Suicide pacts
 - Serial murders are **not** grouped in a single incident (unless within 24 hour period)



Definition of an incident

- Incident initiation dependent upon access to sources
- NJ uses “Manner of death” from paper DC
- Other states get ICD-10 codes directly from death certificate or use manner of death from medical examiner’s office
- CDC will use deaths transmitted to them with ICD-10 codes



Primary data sources

- Bureau of Vital Statistics
 - Death certificates
- Office of the State Medical Examiner
 - Report of the Investigation of the Medical Examiner (RIME)
- County Prosecutor's Offices
 - Police reports (homicides and suicides, if available)
 - Atlantic County has refused to cooperate
- Local Law Enforcement
 - Suicides not stored at County Prosecutor's Offices, some homicides



Secondary data sources

- New Jersey State Police
 - Supplemental Homicide Report
 - ViCAP (in development)
 - Domestic Violence Reports
- Child Fatality Review
 - Pilot testing NVDRS CFR module for child deaths
 - Not every child death is reviewed
- Sources we have worked toward improving access
 - ATF traces
 - Toxicology reports
 - Ballistics data
 - Atlantic County Prosecutor's Office



Variables

- “Early required”
 - Entered within 6 months of death – Death Certificate
- “Late required”
 - Entered within 18 months of death – Most ME, PR data
- “Optional”
 - Entered anytime before CDC closes the data year – Misc. ME, PR data

Software provided by CDC transmits data nightly so data is timely and constantly updated



Multiple data sources

- Data collected across several sources act as quality check for incident data
- Conflicting manner of death from DC, ME, LE are “settled” by use of abstractor manner
- At state level, discordant data reviewed on case-by-case basis or state-defined primacy
- CDC has primacy for conducting analysis at national level based on likely accuracy of sources



Primacy, CDC versus NJ

- CDC
 - Primacy for suicide circumstances generally given to medical examiner's reports
 - Primacy for homicide circumstances generally given to police reports
- NJ
 - Each circumstance, any mention in either source
 - Several other states use this approach
 - ME and PR coincide in more than 95% of incidents (2003-2004).



Abstractor manner of death

- Not meant to reinvestigate death but to resolve definitional issues
 - Russian roulette- NVDRS codes as suicide or homicide, not unintentional
- Also used to assign death where DC conflicts with ME or LE documents
 - DC = homicide, ME = killed by law enforcement in line of duty- should be legal intervention
 - DC has natural or unintentional manner, other source(s) NVDRS eligible situation

Circumstances



Circumstances known (Y or blank)

“Gateway” variable

- Positive endorsement if source mentions a circumstance.
- There is no “N” for a circumstance
 - Police report no suicide note, no history of mental illness
- Problems/crises reported from victim’s point of view

Suicide and Undetermined Circumstances



- Current/past mental health problems and treatment
- Other circumstances
 - Physical health problems
 - Intimate partner problems
 - Financial problems, job problems, school problems
 - Suicide note found/disclosed intent/previous attempts
- Crisis in past or upcoming 2 weeks
- If “crisis” is endorsed, another circumstance must also be endorsed to explain the crisis



Homicide Circumstances

- Precipitated by another crime
- Jealousy (lovers' triangle); Intimate partner violence
- Argument over money/property
- Other argument, abuse, conflict
- Drug involvement; Gang-related
- Justifiable self defense/law enforcement
- Victim used weapon

Homicide Circumstances



- Other homicide circumstances
 - Hate crimes
 - Mentally ill suspect
 - Brawl (mutual physical fight)
 - Terrorist attack
 - Victim was a bystander/police officer on duty/Good Samaritan
 - Mercy killing

Unintentional Firearm Injury Circumstances



Context of injury

- Hunting
- Target shooting
- Self-defensive shooting
- Celebratory firing
- Loading/unloading gun
- Cleaning gun
- Showing gun to others
- Playing with gun
- Other context of injury

Mechanism of injury

- Thought safety engaged
- Thought unloaded, magazine disengaged
- Thought gun unloaded, other
- Unintentionally pulled trigger
- Bullet ricochet
- Gun defect/malfunction
- Fired while holstering/unholstering
- Dropped gun
- Fired while operating safety/lock
- Gun mistaken for toy
- Other mechanism of injury

Relationships

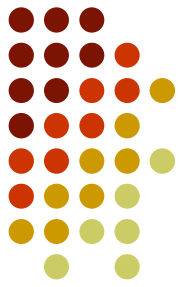


- Relationships between victims and suspects
 - Can have more than one relationship between any V-S pair
- Victim to weapon relationships
 - Matches victims and weapons within an incident
 - Records which suspect and weapon inflicted the fatal wounds

Barriers encountered/resolved



- Access to local law enforcement
 - County prosecutor's offices for homicide reports instead of data agreements with every municipal police department
 - Varies who keeps suicide records; contact municipalities as needed
 - Developing ViCAP as a source of LE data to increase efficiency
- Access to ballistics
 - Data agreement in place but logistical problems persist
- Toxicology and ATF trace data
 - Still working on these data



QC and Evaluation

- Cross-check data sources to complete incident identification
- Analyze contents of database for consistency, accuracy, follow-up
- Periodic re-abstraction to assess inter-rater reliability
- CDC's NJ EIS officer is currently conducting program evaluation



Case ascertainment

Assuming NJVDRS contains all deaths of interest, how well does the MCD generally reflect intent classification?

MCD deaths \ NJVDRS deaths	NJVDRS deaths (+)
Intentional injuries and unintentional firearm (+)	1025
"Natural" causes (-)	101

Deaths occurring in New Jersey

91% of NJVDRS deaths have an ICD-10 code that would capture the death. However...



Case ascertainment

Comparison of NJVDRS abstractor manner to their ICD-10 intent classification in MCD

NJVDRS deaths MCD deaths	Unintentional firearm	Suicide	Homicide	Undetermined	Legal intervention	Total
Unintentional Firearm	2	3	3	0	0	8
Suicide	0	557	0	2	0	559
Homicide	0	0	391	0	8	399
Undetermined	0	0	0	51	0	51
Legal Intervention	0	1	1	0	6	8
Other unintentional injuries	0	8	9	8	0	25
“Natural” causes	0	19	17	33	2	71
No death certificate	0	3	2	0	0	5
Total	2	591	423	94	16	1126

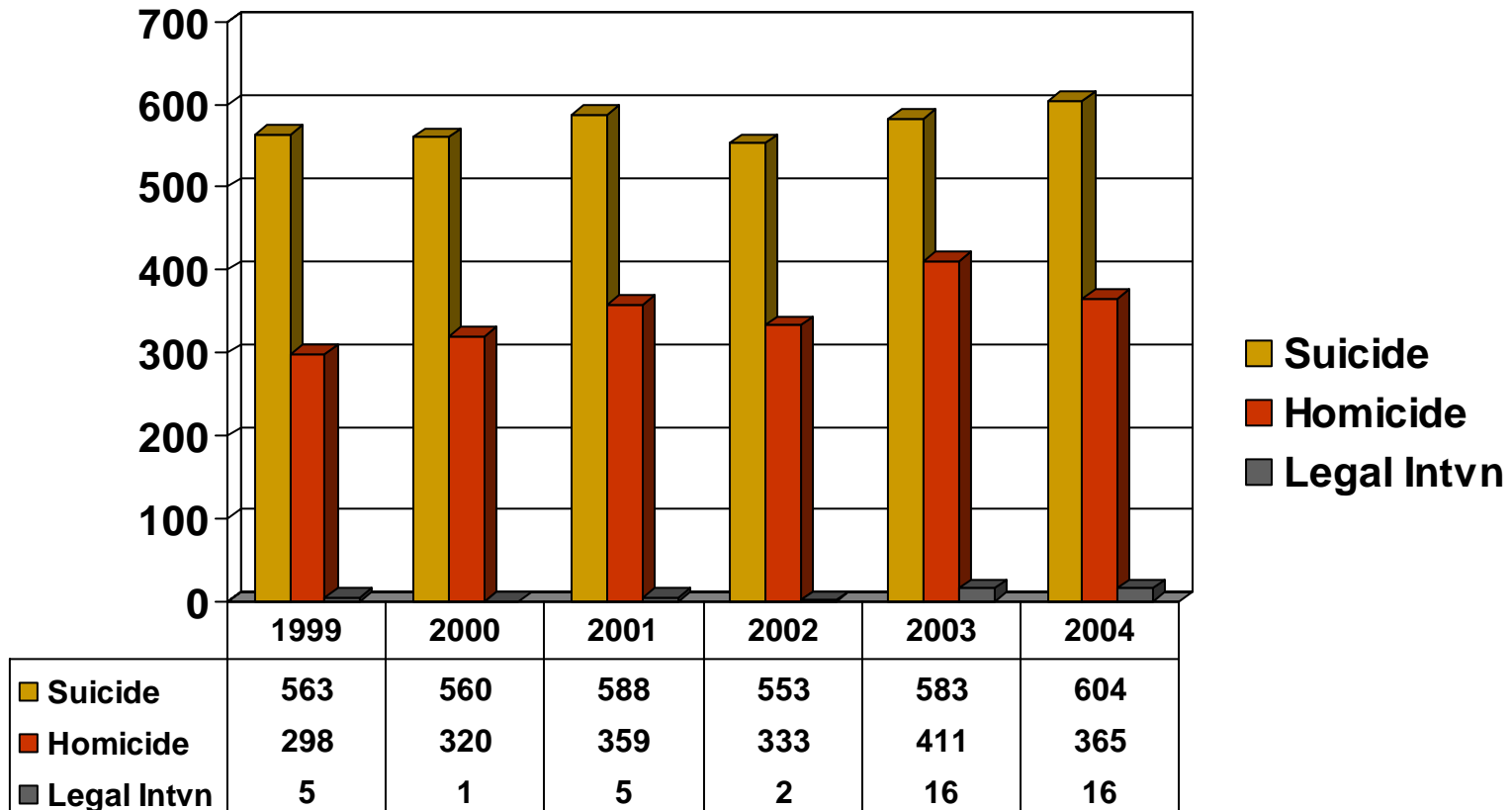


Data

Violent deaths, 1999-2004*



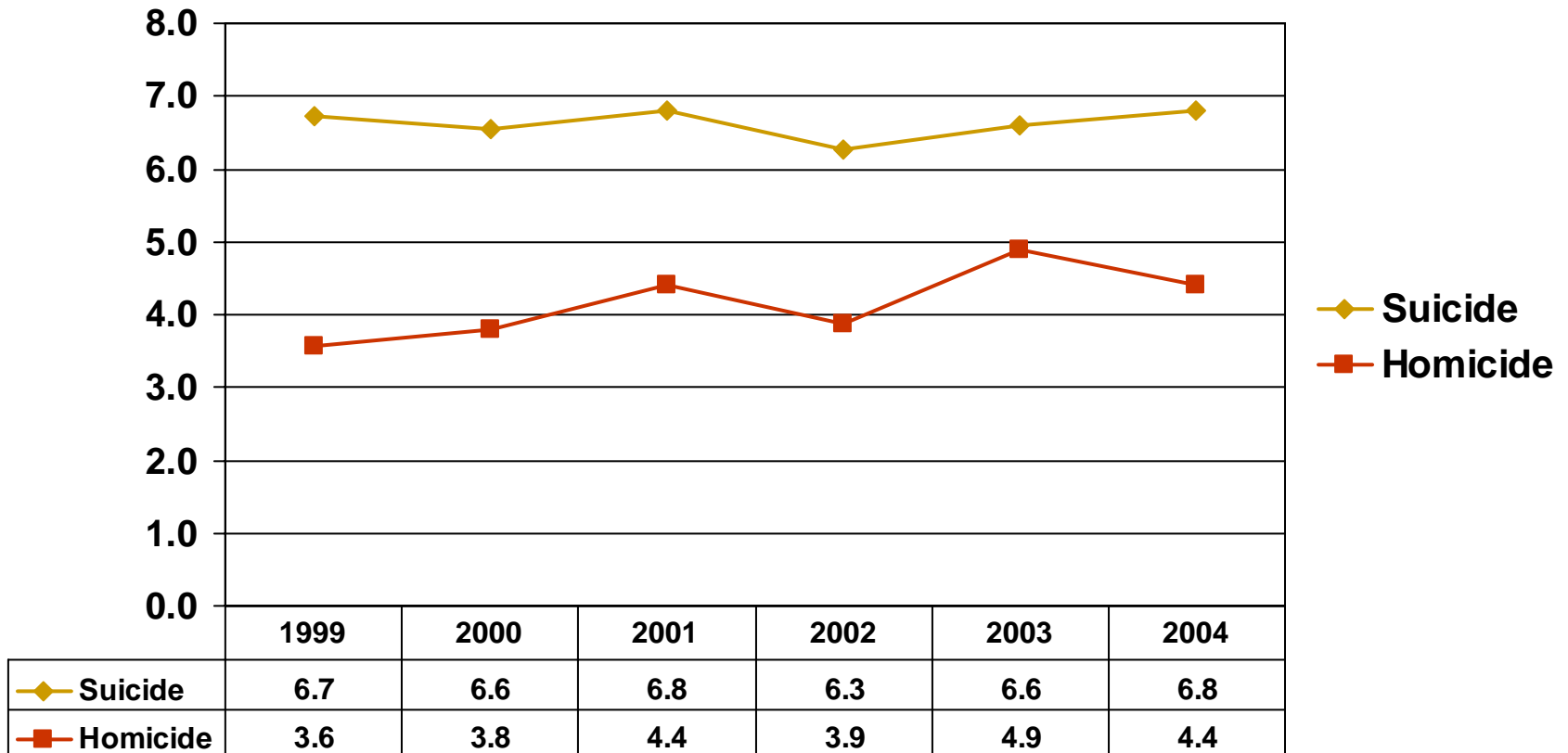
*1999-2002 from WISQARS; 2003-2004 data from NJVDRS. New Jersey resident deaths





Violent death rates, 1999-2004*

*1999-2002 from WISQARS; 2003-2004 data from NJVDRS. New Jersey resident deaths





Violent deaths, gender

Suicides	2003		2004	
	N	Rate	N	Rate
Males	459	10.9	491	11.6
Females	124	2.7	113	2.5

Homicides	2003		2004	
	N	Rate	N	Rate
Males	316	7.6	297	7.1
Females	95	2.2	68	1.5

*Rates are age-adjusted using the 2000 US Standard Population.
New Jersey resident deaths.*

Violent deaths, race/ethnicity



Suicides	2003		2004	
	N	Rate	N	Rate
White	468	7.8	484	8.4
Black	50	4.4	49	4.1
Hispanic	43	3.8	42	4.0

Homicides	2003		2004	
	N	Rate	N	Rate
White	93	1.6	55	1.0
Black	239	19.6	219	17.8
Hispanic	71	5.3	73	5.2

Rates are age-adjusted using the 2000 US Standard Population

Races exclude Hispanics, and Hispanics can be of any race. New Jersey resident deaths..



Violent deaths, age groups

Suicides	2003		2004	
	N	Rate	N	Rate
Under 15	4	**	6	**
15-24	60	5.6	73	6.6
25-34	85	7.6	89	8.1
35-44	120	8.4	143	10.1
45-54	122	9.8	126	9.9
55-64	97	11.3	71	8.0
65-74	43	7.7	42	7.7
75+	52	9.1	54	9.3

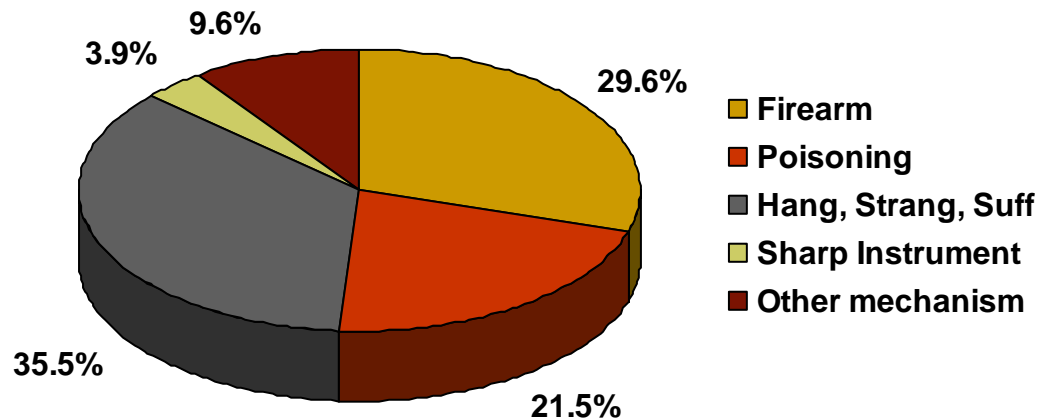
Homicides	2003		2004	
	N	Rate	N	Rate
Under 15	22	1.2	13	**
15-24	122	11.3	119	10.8
25-34	105	9.4	110	10.0
35-44	72	5.0	58	4.1
45-54	46	3.7	30	2.4
55-64	23	2.7	15	**
65-74	14	**	14	**
75+	8	**	6	**

Rates are age-adjusted using the 2000 US Standard Population. New Jersey resident deaths.

Weapons



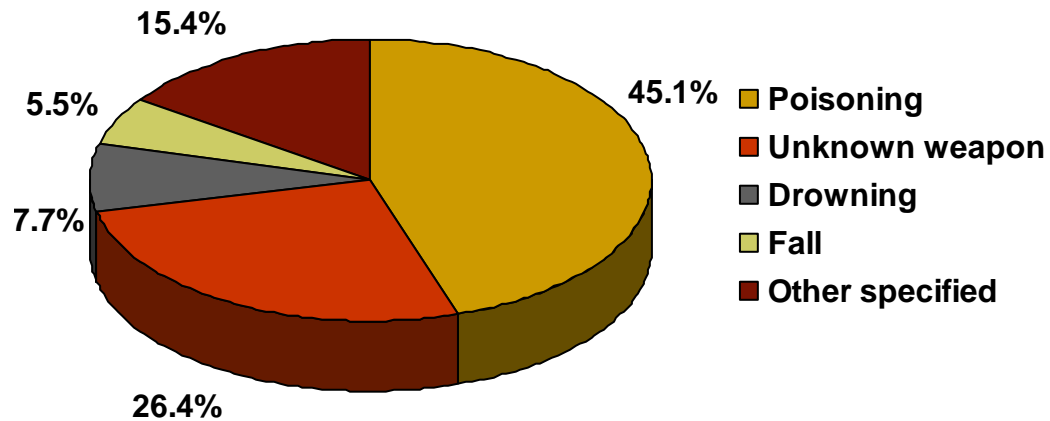
**Suicide
2003-2004**



Weapons



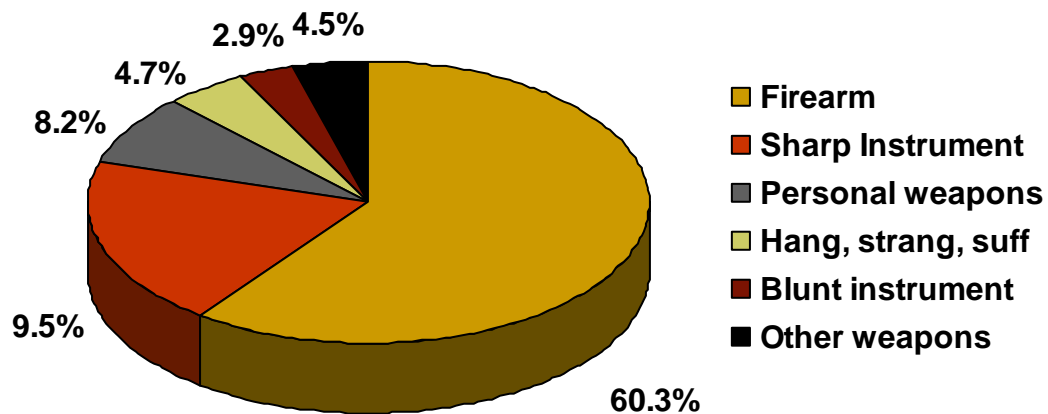
Undetermined intent 2003-2004



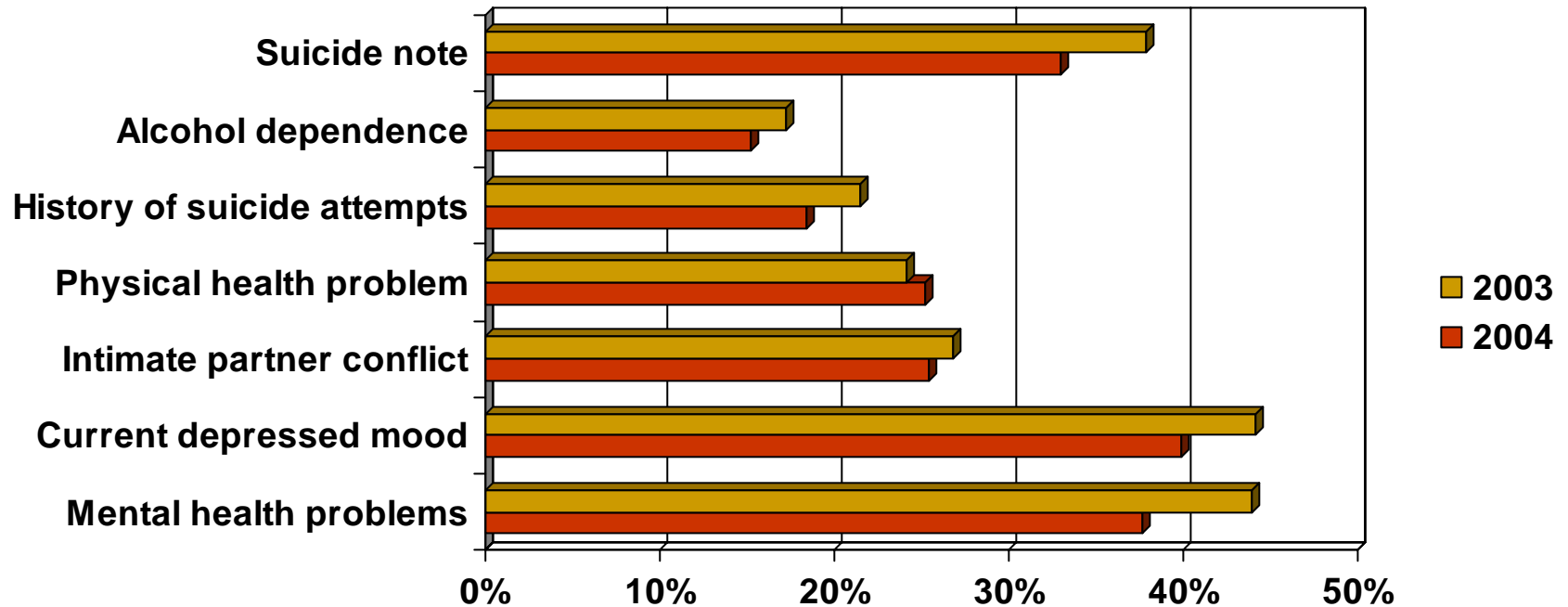
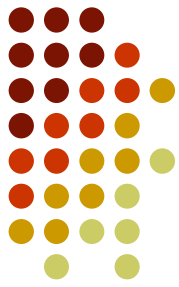
Weapons



Homicide 2003-2004



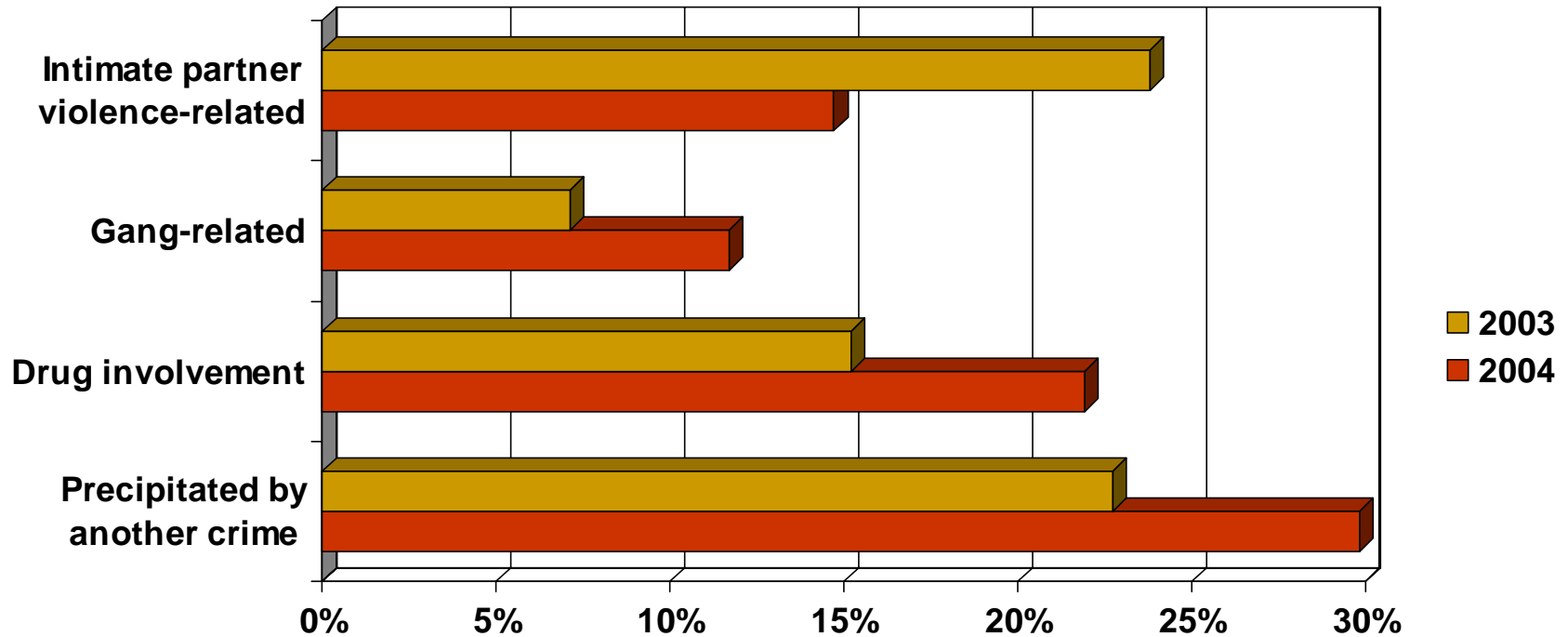
Suicide circumstances



In 2003, 583 suicides occurred in New Jersey. 488 (83.7%) have known circumstances.

In 2004, 637 suicides occurred in New Jersey. 539 (84.6%) have known circumstances.

Homicide circumstances



In 2003, 406 homicides occurred in New Jersey. 269 (66.3%) have known circumstances.

In 2004, 379 homicides occurred in New Jersey. 265 (69.9%) have known circumstances.



NJVDRS exposure

April 2005 MMWR



- New Jersey occurrent deaths, based on abstractor manner of death
- Analysis showed statistically significant increase in suicide rates in OR, homicide rates in NJ in 2003

September 2005 GAB meeting



- Gang violence in New Jersey
 - Guest speaker David Kennedy (Boston CeaseFire)
 - Panel discussion with representatives from NJ law enforcement, DOC, UMDNJ
- Two different views perspectives discussed
 - Gangs as criminal corporations with defined hierarchy and networking
 - “Gangs” with a little “g”; local groups of youth who emulate Gangs without actually being associated with them

December 2005 APHA meeting



- Poster accepted for APHA, presented 12/2005
- Compared ability of NJVDRS to identify murder-suicides versus using Lexis-Nexus searches
- NJVDRS had more incidents than found through Lexis-Nexus search for 2003

February 2006 Domestic Violence Fatality/Near Fatality Review Board



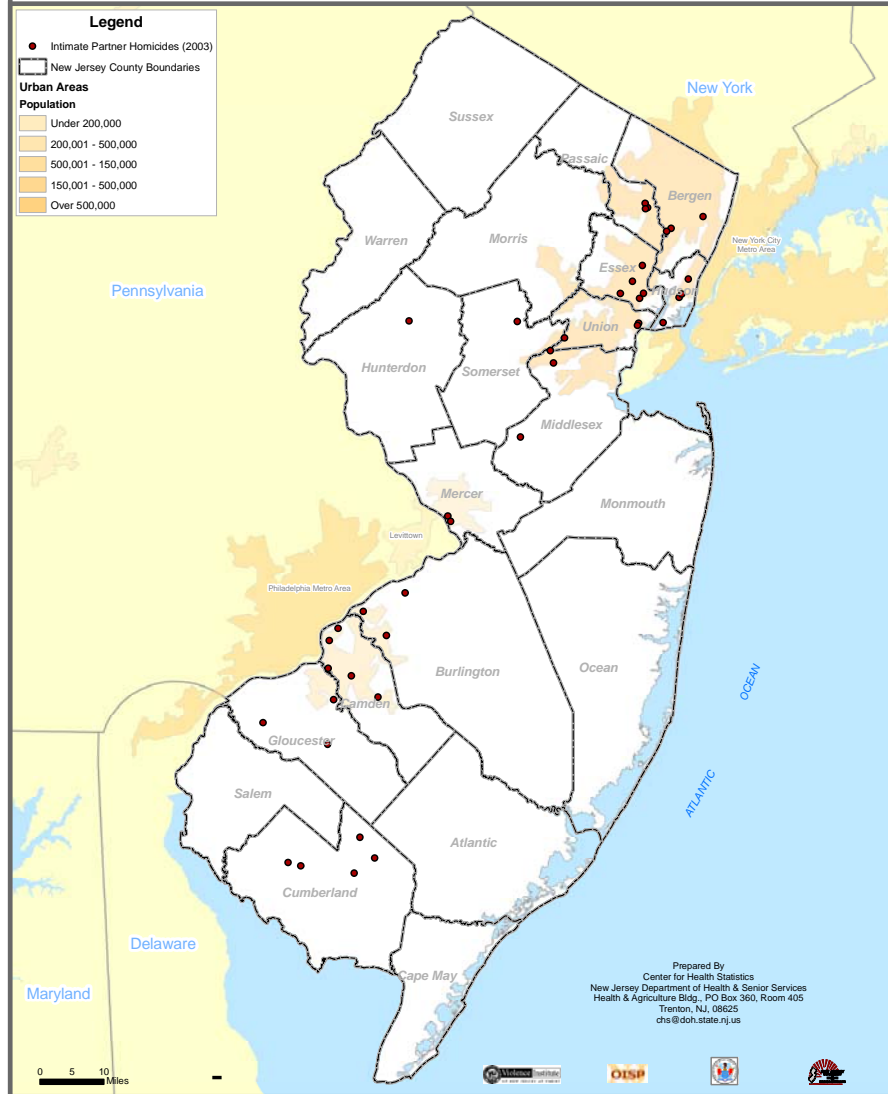
- DVFNFRB authorized under statute, to investigate fatality and near-fatality stemming from domestic violence
- Members include state and community stakeholders
- NJVDRS overview
- Analysis of murder-suicide (1996-2003).
 - 89 M-S homicides represented 3.2% of all homicides during period; 73 M-S suicides represented 1.6% of all suicides.
 - 56% of M-S victims were the IP of suspect
 - 6.8% of M-S suicides were females, and 70.8% homicides
 - 67% of M-S homicides were females killed by males
 - 12.4% M-S homicides were victims under 18 years old
 - Mostly Intimate Partner and familicide incidents



March 2006 GAB meeting

- Intimate partner homicide in New Jersey
 - Data presented, followed by a panel discussion
 - Domestic Violence Fatality and Near Fatality Review Board collaboration is developing
 - Victims of IPV homicides...
 - Are older
 - More likely to be female
 - More likely to be non-Hispanic white
 - More likely to be killed with a weapon other than a gun
- ...when compared with other homicide victims

Intimate Partner Homicides in New Jersey, 2003



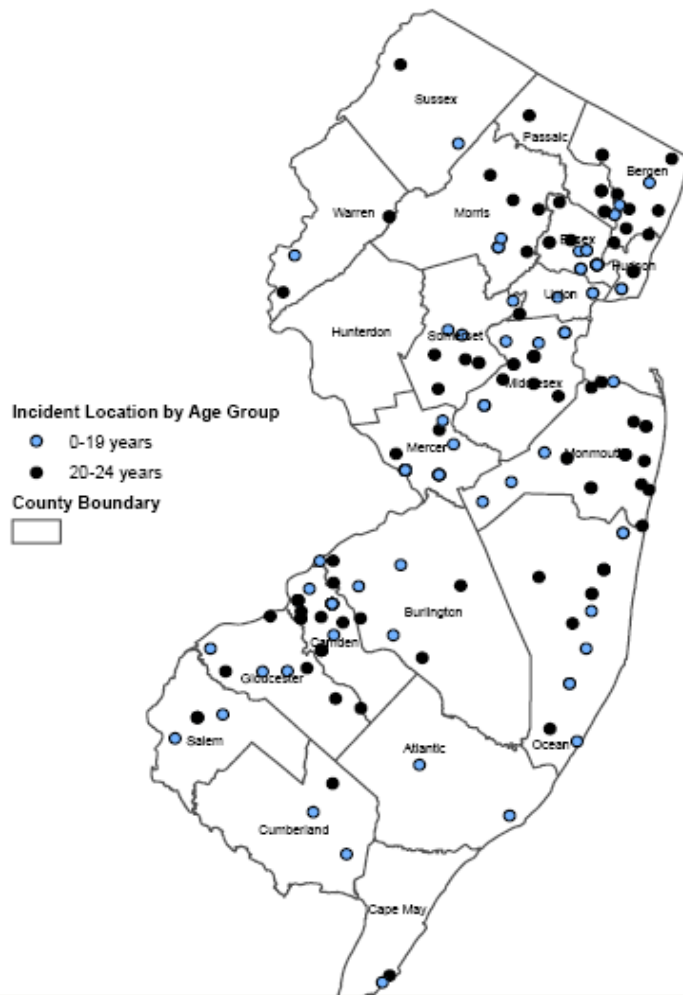
May 2006 Governor's Advisory Council on Youth Suicide



- Overview of youth suicide in New Jersey, using NJVDRS, YRBS, Student Health Survey of High School Students, mortality trend data
- NVDRS Circumstances revealed that adolescents had higher reports of...
 - Problems with relationships
 - Recent crises
 - Substance abuse
 - Recent suicide of friend or family member
 - Mental health circumstances (0-19 years)...than generally observed for all suicides in NJ.



Incident locations by municipality of youth suicide by age group, New Jersey, 2003-2005



July 2006 MMWR

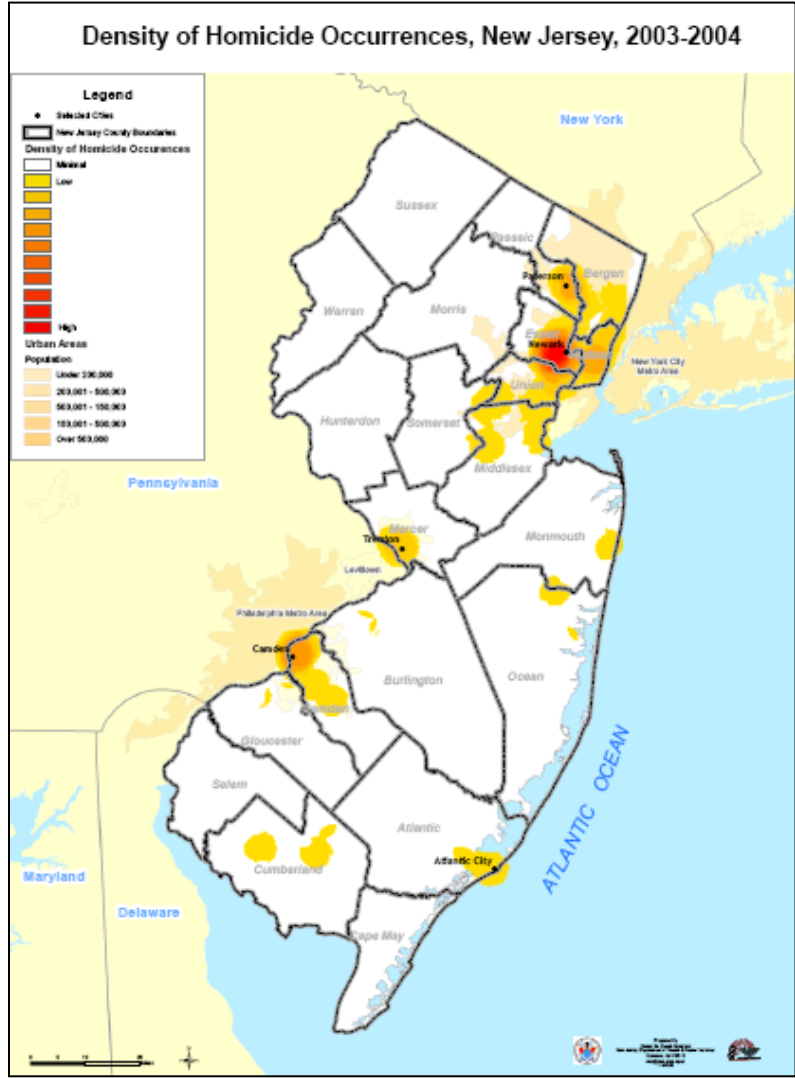


- New Jersey occurrent deaths, based on abstractor manner of death
- Brief update on victim demographics for 2003 and 2004 for all states with 2003 and 2004 data (13)
- Some descriptive analysis of suicide circumstances
- Created a companion piece based on the MMWR but using only NJ data
 - Posted to OISP website

November 2006 Gang Summit



- Presented before audience of New Jersey law enforcement, community leaders, and prevention experts
- Used a modified gang flag instead of NVDRS definition
 - Preparing this presentation guided us in developing expanded gang variables for our “Plug-in Component”, a way for states to add their own variables to the NVDRS software



Finally...



- NJVDRS Report (2003-2004 data)
- Briefs
- Collaboration with other states
- Increase dissemination of data through the Office of Injury Surveillance and Prevention
 - Get data to those who can use it

Contact information



- Office of Injury Surveillance and Prevention
Center for Health Statistics
Office of the State Epidemiologist
Public Health Services Branch
New Jersey Department of Health and Senior Services
609-984-6702
<http://nj.gov/health/chs/oisp/njvdrs.shtml>
chs@doh.state.nj.us
- Centers for Disease Control and Prevention
<http://www.cdc.gov/ncipc/profiles/nvdrs/facts.htm>



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