

Trends in Homicide Among Youth in Richmond, Virginia, 2003-2014

Background

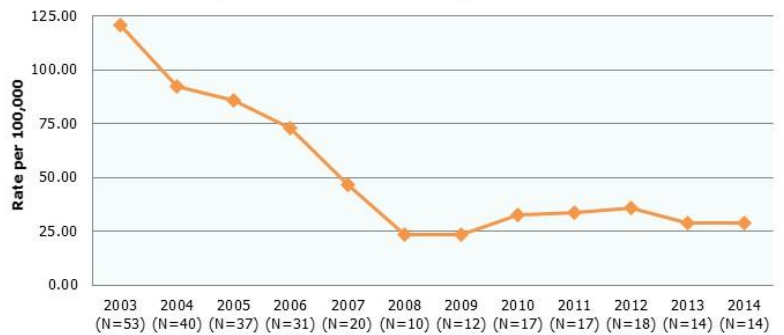
This factsheet examines trends in homicide and suicide deaths using the Virginia Violent Death Reporting System (VVDRS). The VVDRS is a surveillance system that continually collects data on violence related deaths. The Office of the Chief Medical Examiner (OCME) in the Virginia Department of Health conducts the VVDRS as part of the National Violent Death Reporting System (NVDRS), which is funded by the Centers for Disease Control and Prevention.

This report summarizes data from the VVDRS, inclusive of calendar years 2003 through 2014. Data includes 10-24 year-old youths who resided or were injured in Richmond City. Overall, sex and race specific rates per 100,000 were calculated using U.S. Census Bureau population data. Victim residence and injury location were geocoded to the U.S. Census block group and mapping was conducted using ArcGIS software.

Rates of Homicide

There were 283 deaths attributed to homicide between 2003 and 2014 among 10-24 year olds. The majority (95.8%) occurred in Richmond city, and nearly three-quarters were Richmond city residents (74.2%). Although the overall rate of homicide has declined significantly since 2003 (Figure 1), there was a slight increase in this rate between 2010 and 2012.

Figure 1. Homicide Rate Among 10-24 Year Olds



Demographic Characteristics

The majority of homicide victims were male, Black, non-Hispanic and most were employed or students (Table 2). The average age ranged between 19.2 years and 21.7 years.

¹ < High School = Less than 12 years of education

Table 2. Characteristics of Homicide Victims aged 10-24 Years

	Sex		Race			Ethnicity	Age	< High school Education ¹	Employed /Student
	Male	Female	Black	White	Other	Hispanic	Mean (range)		
2003	91%	9%	89%	9%	2%	6%	20.2 (15-24)	55%	68%
2004	98%	2%	93%	7%	0%	5%	20.7 (14-24)	50%	75%
2005	92%	8%	84%	16%	0%	8%	20.8 (13-24)	59%	81%
2006	94%	6%	90%	7%	3%	3%	20.1 (15-24)	70%	65%
2007	100%	0%	95%	0%	5%	5%	20.4 (15-24)	65%	60%
2008	80%	20%	80%	20%	0%	0%	19.2 (14-23)	40%	90%
2009	100%	0%	92%	0%	8%	0%	21.1 (17-24)	25%	83%
2010	88%	11%	100%	0%	0%	0%	21.7 (18-24)	35%	53%
2011	100%	0%	94%	0%	6%	6%	20.8 (18-24)	19%	53%
2012	89%	11%	94%	6%	0%	0%	20.9 (17-24)	61%	50%
2013	100%	0%	93%	0%	7%	0%	20.9 (18-24)	29%	71%
2014	71%	29%	93%	7%	0%	0%	20.4 (15-24)	43%	64%
Overall	92%	8%	91%	7%	2%	4%	20.6 (13-24)	51%	67%

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Figure 2 shows the trend in homicide rates by race. The rate of homicide among blacks declined significantly between 2003 and 2008. However, there was a gradual increase and stabilization in this rate of homicide from 2009 to 2014.

Figure 2. Race-Specific Homicide Rate (10-24 Years)

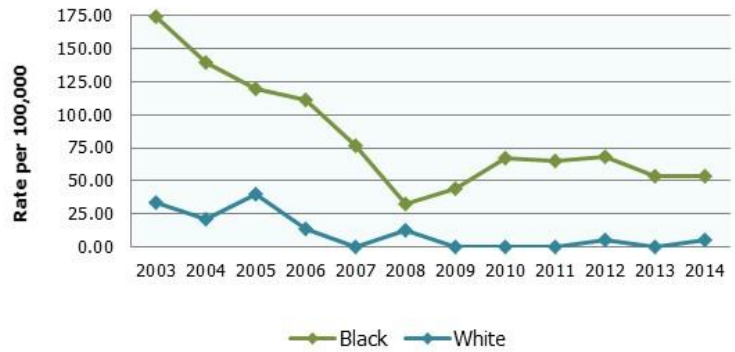
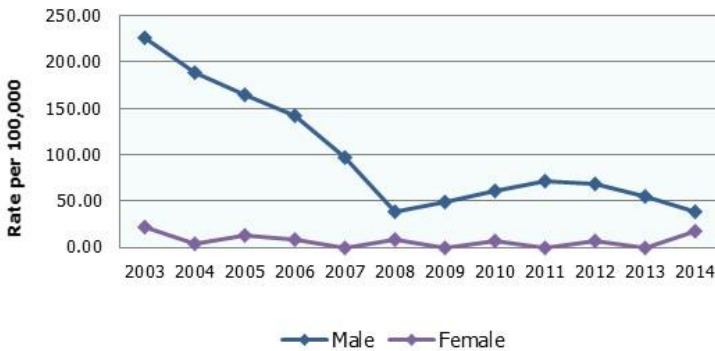


Figure 3. Gender-Specific Homicide Rate (10-24 Years)

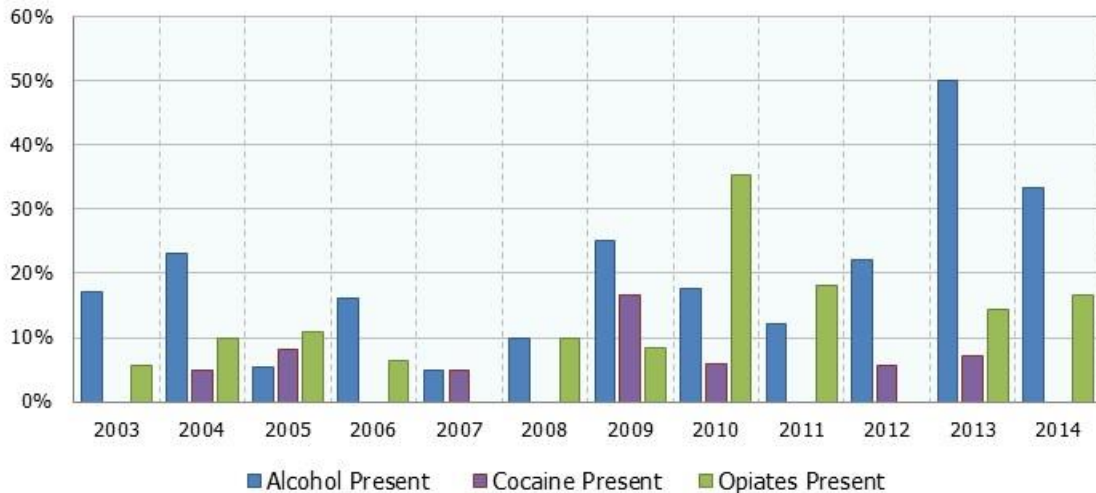


Rates of homicide remained generally stable in females (Figure 3). However, males compose the majority of homicide victims. Similar to the overall rate, a decline in homicide rates among men was observed between 2003 and 2008 (226.8 to 38.7 per 100,000, respectively), then gradually increased between 2009 (48.6 per 100,000) and 2011 (71.16 per 100,000), and declined again through 2014 (38.97 per 100,000).

Alcohol and Drugs

The majority of victims were tested post-mortem for evidence of alcohol (Blood Alcohol Content >0.08) or drugs (legal and illicit). As shown in Figure 4, there was yearly variation in the type of substances that tested positive. In 2013 and 2014, higher proportions of positive alcohol results were observed compared to 2003-2012. Additionally, unlike previous years, there was a higher proportion of victims testing positive for opiates in 2010, which then declined for 2011 through 2014.

Figure 4. Trend in Alcohol & Drugs Detected in Victims

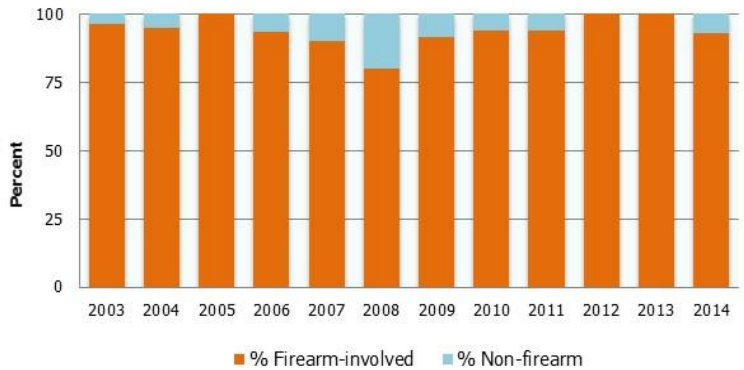


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Injury Characteristics

The majority of homicide deaths involved firearms. As show in Figure 5, the proportion of firearm-involved homicides gradually declined between 2005 and 2008, followed by increases in 2009 (91.7%) through 2013 (94.1% in 2010 and 2011 and 100% in 2012 and 2013, respectively).

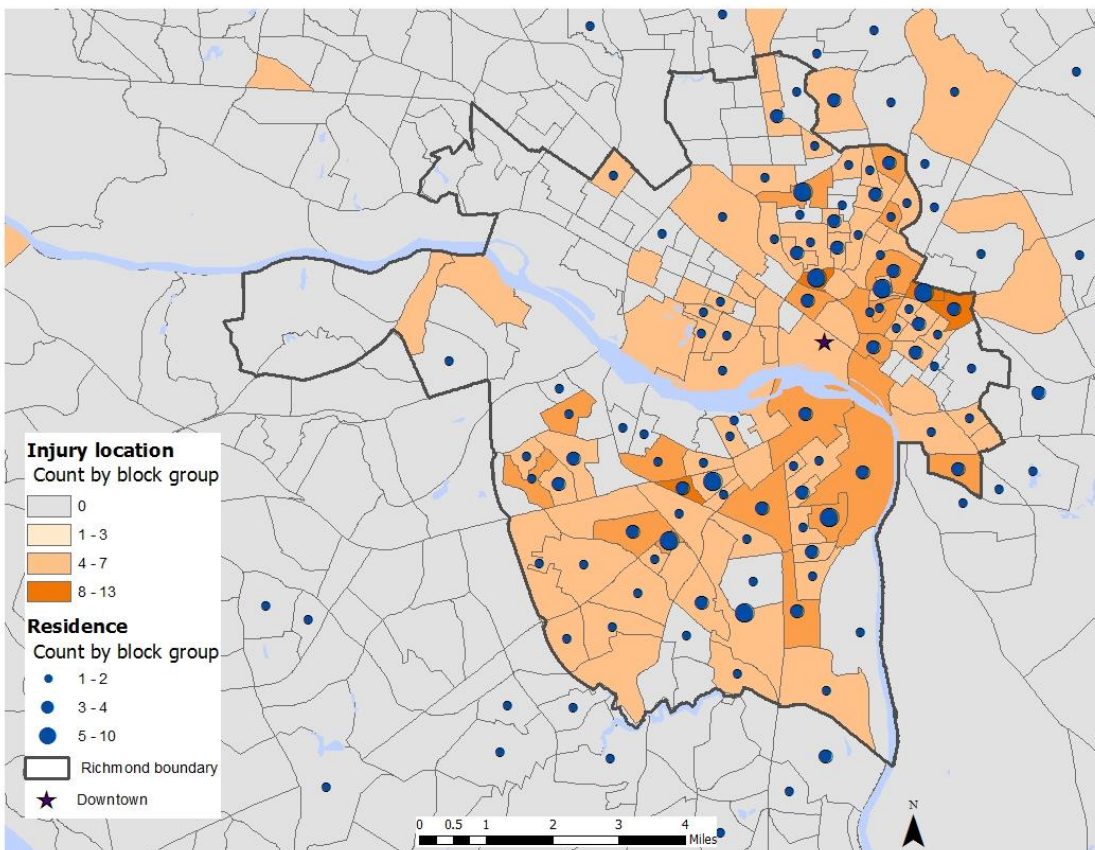
Figure 5. Trend in Proportion of Firearm-involved Homicides



Geographic Distribution

A relatively small proportion of homicides (14.8%) occurred at a victim’s residence. The four most common locations of injuries were on a street/road (41.3%), in a house/apartment (35.0%), inside a motor vehicle (12.0%) or in a parking lot/garage (5.3%). Map 1 displays the number of homicides between 2003 and 2014 by census block where injuries occurred and victim’s residence. Most injuries that resulted in homicide (i.e., orange shaded block groups) occurred in the north, northeast, eastern and southcentral and southeastern parts of the city. The highest concentrations of injuries were located in four block groups located directly north and northeast of downtown and in four block groups in the southcentral and southeastern areas. Over one-fifth of victims (21.2%) resided outside of Richmond city, but the injuries that resulted in homicide occurred within the city’s boundaries (Map 1). Blue circles represent the count of homicides within blocks.

Map 1. Homicide Injury Location and Residence by Census Block Group, 2003-2014

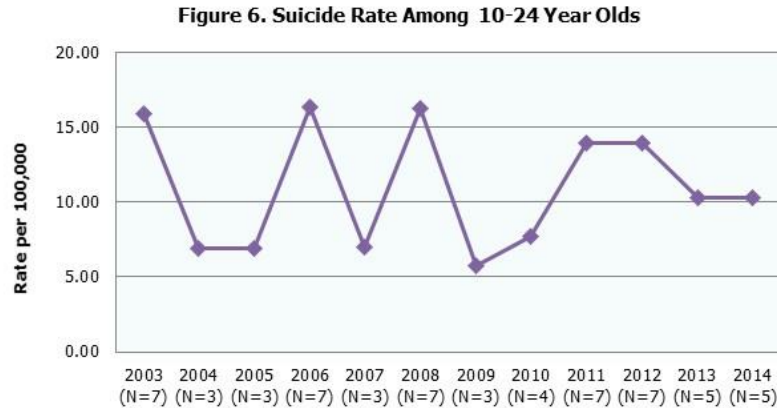


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Suicide Deaths

Between 2003 and 2014, there were 61 deaths attributed to suicide among 10-24 year olds. Most of these deaths (91.8%) occurred in Richmond city and three-quarters were among Richmond city residents (80.3%). Overall rates of suicide varied widely over the 12 year period (Figure 6).

The majority of suicide victims were male (82.0%). Overall, 59.0% of suicide victims were White, 37.7% were Black, and 3.3% were of other races; 4.9% were of Hispanic origin. On average, victims were 20.5 years of age (median 21.0). Roughly one-quarter (23.7%) of victims had 12 or fewer years of education and most (83.6%) were employed or a student. Just over half (52.5%) of suicides were gun-related.



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