



**EXECUTIVE SUMMARY  
AN ANALYSIS OF PATTERNS IN INTERPERSONAL VIOLENCE  
USING MICHIGAN INCIDENT CRIME REPORTING**

**MICHIGAN JUSTICE STATISTICS CENTER  
SCHOOL OF CRIMINAL JUSTICE  
MICHIGAN STATE UNIVERSITY**

**DECEMBER 2014**

**EXECUTIVE SUMMARY  
AN ANALYSIS OF PATTERNS IN INTERPERSONAL VIOLENCE USING MICHIGAN INCIDENT  
CRIME REPORTING DATA**

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**Michigan Justice Statistics Center**

The School of Criminal Justice at Michigan State University, through the Michigan Justice Statistics Center, serves as the Statistical Analysis Center (MI-SAC) for the State of Michigan. The mission of the Center is to advance knowledge about crime and justice issues in the state of Michigan while also informing policy and practice. The Center works in partnership with the Michigan State Police, Michigan's State Administering Agency (SAA), as well as with law enforcement and criminal justice agencies serving the citizens of Michigan.

For further information see: <http://cj.msu.edu/programs/michigan-justice-statistics-center/>

**About the Authors**

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Jason Rydberg is an assistant professor of criminology and justice studies at the University of Massachusetts Lowell. Until recently, he served as a research assistant with the Michigan Justice Statistics Center at Michigan State University. His research interests concern the evaluation of criminal justice program and policies, particularly in the areas of prisoner reentry, community supervision, and sex offender management. His research has recently appeared in *Criminology and Public Policy*, *Justice Quarterly*, *Homicide Studies*, and *Victims and Offenders*.

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## INTRODUCTION

Despite a steady decrease in national rates of violent victimization since the early 1990s (Truman & Langton, 2014), the incidence of violence in America remains high. Michigan has experienced decreases in offending as well, with 2013 data indicating a 7 percent decrease in homicides, a 4 percent decrease in aggravated assaults, and a 1 percent decrease in robberies from 2012 (Michigan Incident Crime Reporting, 2014). Yet, violent crime remains an issue of significant public concern and reducing violent crime is an important component of community revitalization, particularly in urban centers.

This report provides a summary of a full technical report on violent crime in Michigan. The *purpose* of the project is to conduct a *problem analysis of violent victimization and offending* in the State of Michigan, examining patterns in victim, offender, and circumstance characteristics, as well as examine regional variation in violence across the State. These analyses are *designed to inform priorities for strategic intervention*, highlighting the characteristics of victims at the highest risk of violent crime, the most prevalent offender characteristics, and the contexts in which violent offenses are the most prevalent. Additionally, specific attention is given to differential rates of violent victimization within the counties with the highest rates of general and firearm violence.

## DATA AND METHODS

### **Data: The Michigan Incident Crime Reporting System (MICR)**

The analyses presented in this report were conducted by utilizing data from the Michigan Incident Crime Reporting system (MICR). Michigan is one of a small number of states with complete incident-based crime data. The availability of the incident-based MICR data covering

the entire state represent a valuable resource for law enforcement, researchers, and policy makers for understanding crime patterns and planning prevention, intervention, and enforcement strategies to reduce crime and violence.

This report, and the corresponding full report (Rydberg & McGarrell, 2014) analyzes MICR data for the year 2013. For this year of data, 529 Michigan law enforcement agencies were equipped to submit incident data to MICR. Of these agencies, 462 (87.3%) submitted a full 12 months of data, while another 36 (4.9%) submitted less than 12 months of data. As such a total of 498 (94.1%) Michigan law enforcement agencies were either fully or partially represented in the data. In 2013 the MICR contained data on 744,223 unique criminal incidents across the state, where an incident is defined as “one or more offenses committed by the same person or group of persons acting in concert, at the same time and place” (MSP, 2014).

Given this report’s focus on violent crime, the data were reduced to incidents involving a reported homicide, aggravated assault, or robbery against a victim that was an individual (i.e., a person, excluding businesses and the government as victims). With these criteria in place, the current report analyzes 32,056 unique violent incidents, which included 37,681 unique victims, 35,978 unique offenders, and 32,183 unique offenses (see Table 1).<sup>1</sup>

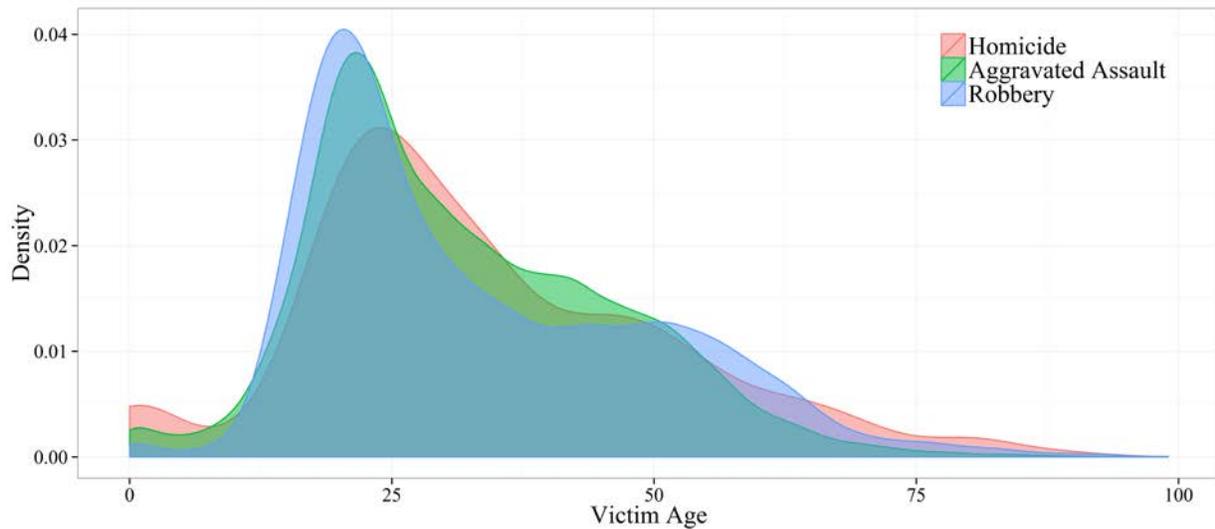
## **KEY FINDINGS**

- Violent crime (defined as homicide, aggravated assault, and robbery) is highly concentrated demographically and geographically.
- Nearly one-half of all violent crime victimizations are experienced by people between the ages 14-29. Young people ages 19-24 experience the greatest risk of being a victim of violent crime (2.5 times the rate of other Michigan residents).

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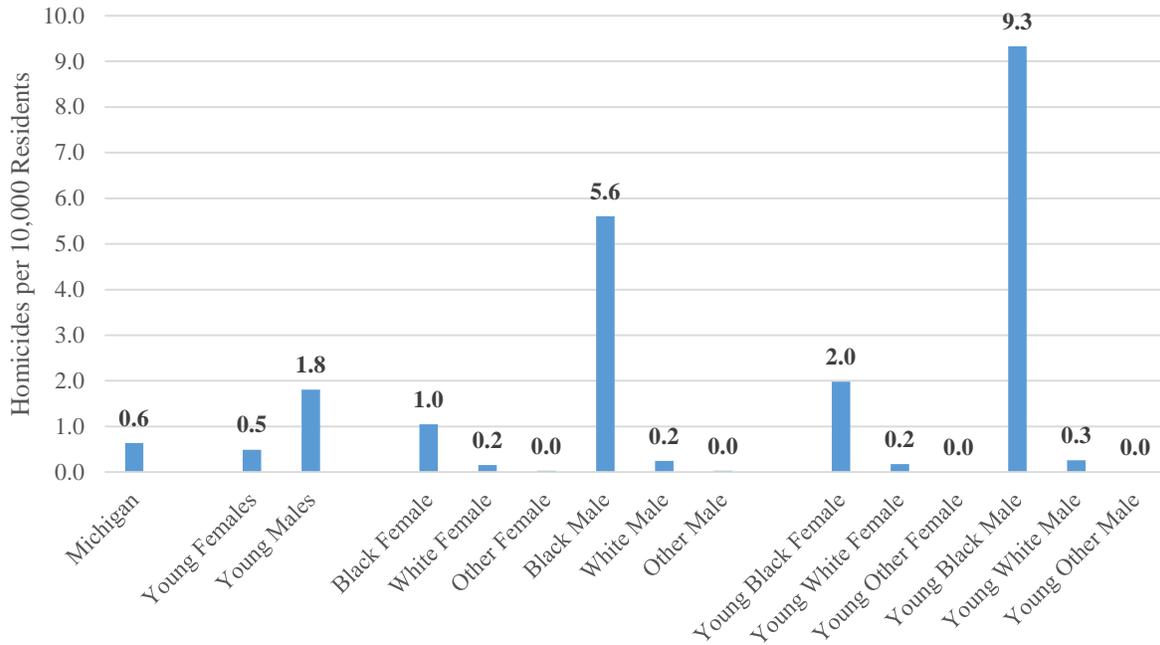
<sup>1</sup> It is important to emphasize that this report uses different incident selection procedures than the overall summary reports filed by MSP. As such, the exact totals and rates reported in this document will not match the totals and rates provided by MSP.

**Figure 1. Distribution of Victim Age by Offense Type**

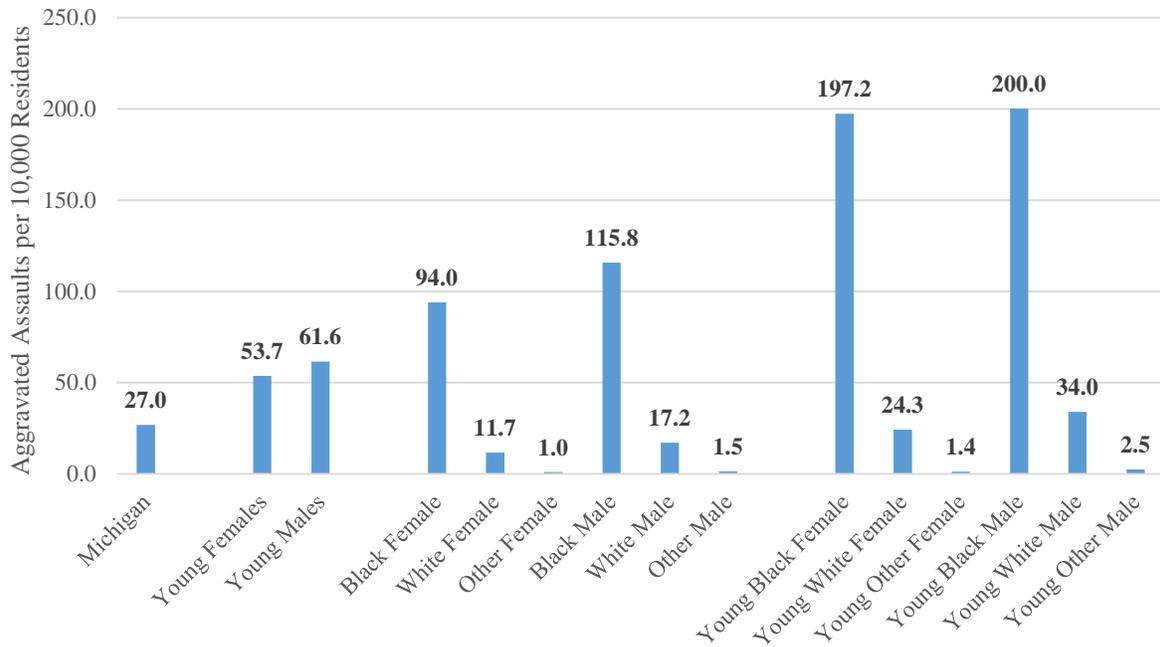


- Men are much more likely to be the victim of violent crime (58% of all victimizations) although the gender difference is considerably lower for aggravated assault victimizations.
- African-American men have a violent crime victimization rate that is 7.5 times that of other residents. For homicide, the victimization rate is 16 times the rate of other Michigan residents.
- The overall rate of homicide victimization for Michigan residents is 0.6 per 10,000 residents. For young, African-American males the rate is 9.3 per 10,000 over 15 times the rate of other residents.
- For aggravated assaults, young, African-American women experience high rates of victimization.

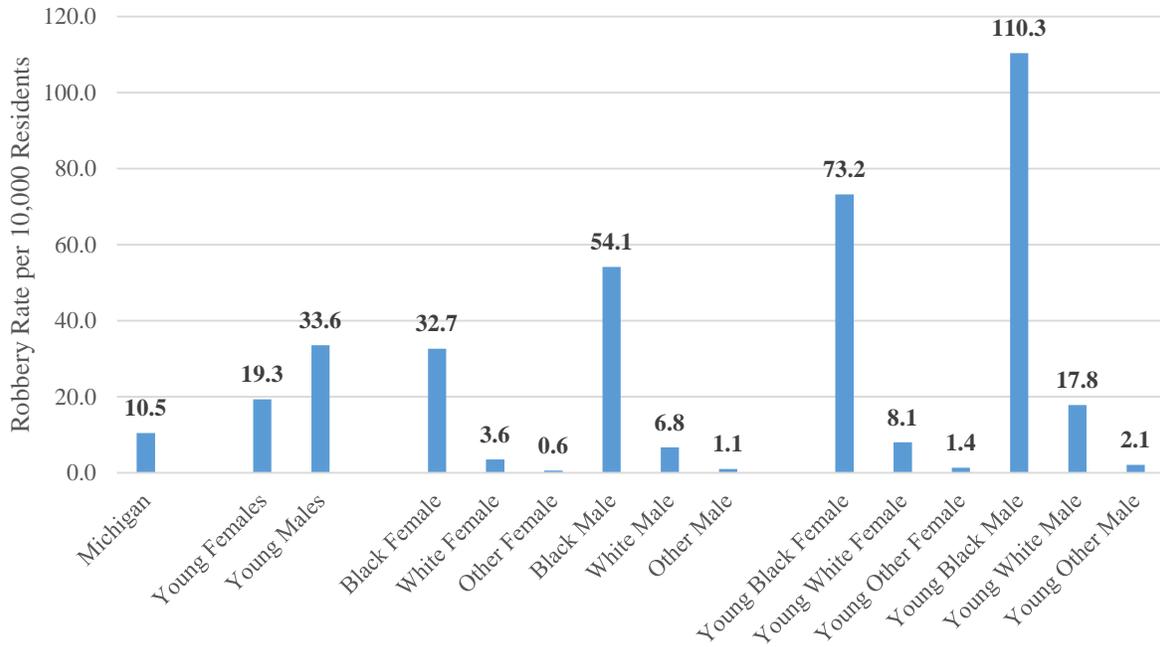
**Figure 2. Homicide Victimization Rates by Age, Sex, and Race**



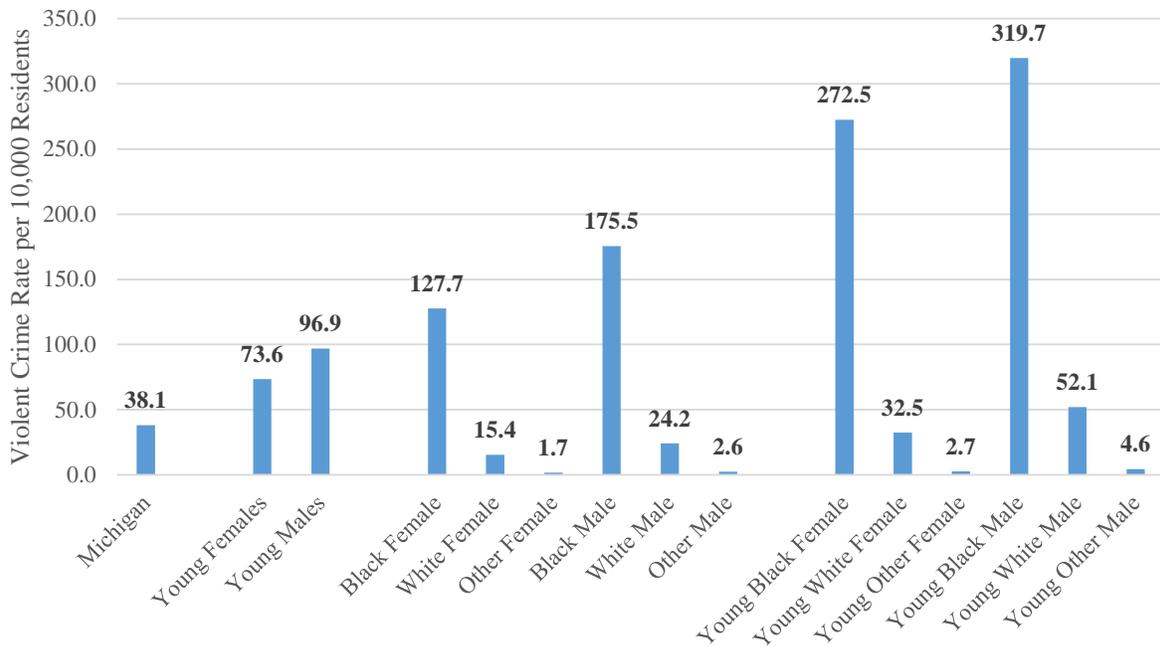
**Figure 3. Aggravated Assault Victimization Rates by Age, Sex, and Race**



**Figure 4. Robbery Victimization Rates by Age, Sex, and Race**

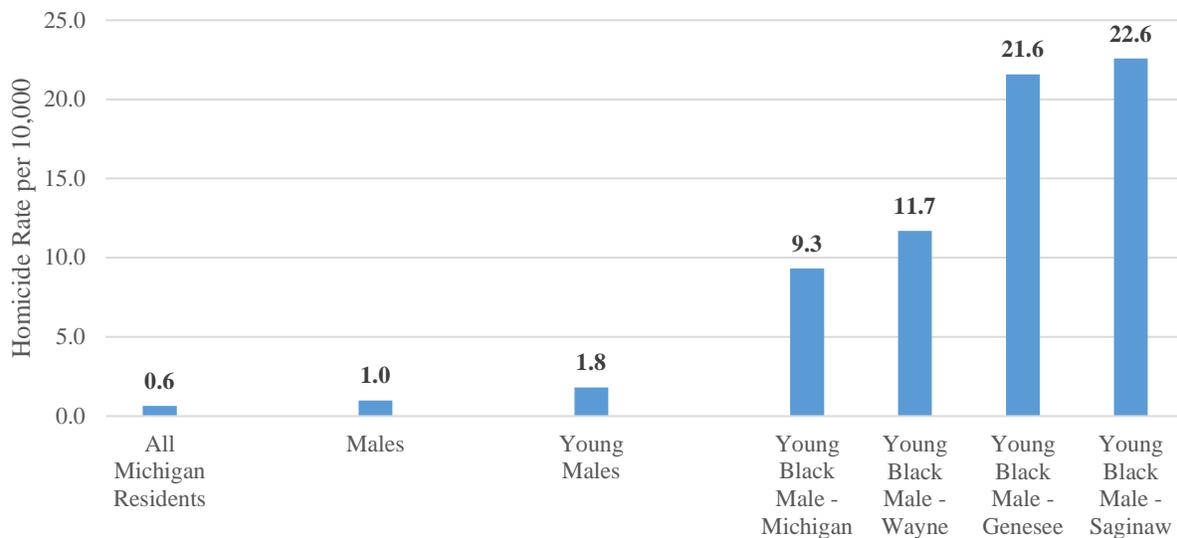


**Figure 5. Total Violent Crime Victimization Rates by Age, Sex, and Race**

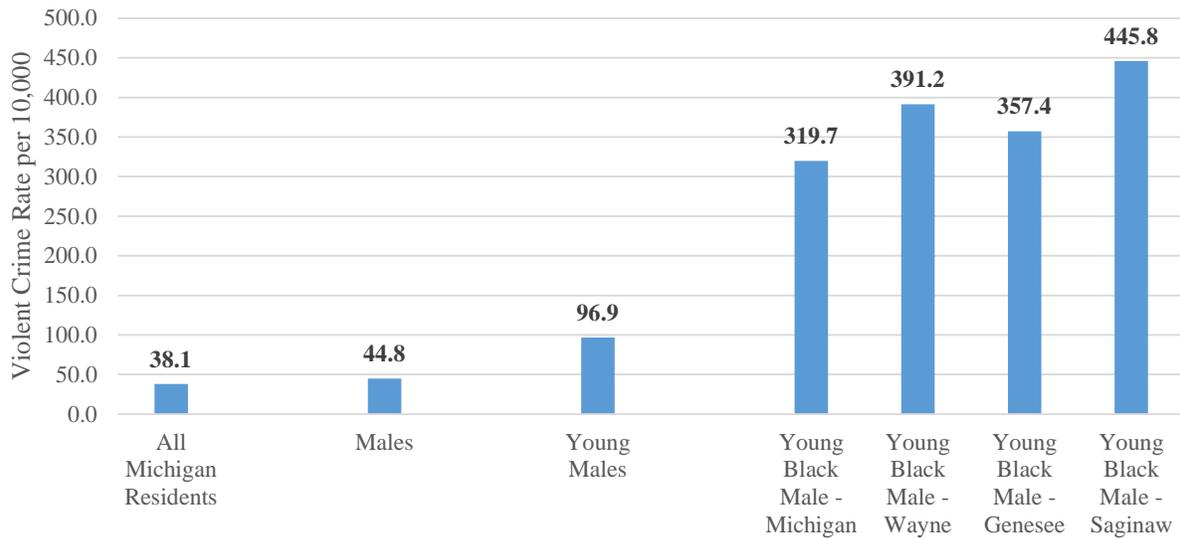


- Patterns of offending largely parallel patterns of victimization.
- Approximately 1/5<sup>th</sup> of violent incidents involve strangers. A similar proportion, just less than 20 percent of incidents, involve unknown information about the relationship between the offender and victim.
- In approximately 60 percent of the violent victimizations there is some connection between the victim and offender (acquaintance, family member, present or past intimate partner).
- One-quarter of aggravated assaults involve an intimate partner.
- Thirty-five percent of violent incidents involve a firearm. This increases to 78 percent of homicides.
- Arrests are made in just over 1/3<sup>rd</sup> of homicides and 1/3<sup>rd</sup> of aggravated assaults but only 13 percent of robberies.
- Many Michigan communities (N=42) experienced no homicides and even more experienced no firearms homicides (N=58).
- Wayne, Genesee, and Saginaw Counties, including the cities of Detroit, Flint, and Saginaw, experienced 74 percent of the state’s homicides, 54 percent of aggravated assaults, and 72 percent of robberies.
- Firearms incidents were even more concentrated in Wayne, Genesee, and Saginaw Counties. They experienced 81 percent of the state’s firearms homicides, 70 percent of aggravated assaults with a firearm, and 78 percent of robberies with a firearm.
- Ingham, Kalamazoo, and Muskegon were the other counties with the highest numbers and rates of violent crime.
- Multivariate analyses of the factors associated with County levels of violence indicated that population density, being a metropolitan county, and economic hardship were associated with higher levels of violent crime.

**Figure 6. Homicide Victimization Rate: Young Men in High Rate Counties**



**Figure 7. Total Violent Crime Victimization Rate: Young Men in High Rate Counties**



## CONCLUSIONS

Determining how to allocate scarce resources, at local, state and federal levels, towards reducing violent crime remains a paramount issue for law enforcement. This is particularly true in Michigan where over the last decade law enforcement agencies increasingly faced relatively high rates of general and firearm violence in the face of declining budgets and declining numbers of sworn personnel. As such, the systematic analysis of MICR data can be utilized to suggest areas of enforcement, prevention and intervention. The analyses in the current report suggest that the risk of violent victimization is strongly concentrated among demographic subgroups and across geographic regions of the state. In Michigan in 2013, young, Black males were at a substantially higher risk for violent victimization – especially for homicides and robberies. Young, Black females made up a disproportionate number of aggravated assault victims – experiencing a victimization rate on par with that of Black males.

These victimization rates were observed to vary considerably across Michigan counties. Wayne, Saginaw, Genesee, Ingham, Muskegon, and Kalamazoo Counties all had top 10 victimization rates for homicides, aggravated assaults, and robberies. In particular, Wayne, Genesee, and Saginaw counties, including the cities of Detroit, Flint, and Saginaw, comprised the top 3-4 counties for rates of firearm violence.

The concentration of victimization risk is particularly striking when combining demographic characteristics and geography. Specifically within these subareas (Wayne, Genesee, and Saginaw Counties), young, Black males already at a high rate of violent victimization statewide (319.7 per 10,000) were at an even higher risk of such victimization (357.4 - 445.8 per 10,000). Indeed, young, Black males in Wayne, Genesee, and Saginaw Counties had a violent victimization risk in excess of 10 times that of all male Michigan residents. The homicide victimization rate was even more striking as young, Black males in these three counties experienced rates 19 to 37 times that of other Michigan residents. If this were a discussion of another type of disease, these rates of victimization would be considered a public health epidemic.

These disproportionately high rates of violent victimization within already high violent crime rate counties suggest an appropriate focus for law enforcement intervention and related prevention efforts. Research evidence demonstrates that enforcement, intervention, and prevention, using data-driven, evidence-based strategies hold considerable promise for reducing violence. Specifically, highly focused and targeted interventions have been shown to be the key for crime and violence reduction (National Research Council, 2004). The findings of the current analysis support such highly focused and targeted efforts.<sup>2</sup>

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<sup>2</sup> The School of Criminal Justice at Michigan State University, with the support of the U.S. Department of Justice, Bureau of Justice Assistance, is developing the Violence Reduction Assessment Tool. Known as the VRAT, it is a

Fortunately, such efforts are underway. The Governor's Secure Cities initiative dedicates enforcement and related resources to Detroit, Flint, and Saginaw (Wayne, Genesee, and Saginaw Counties) along with Pontiac (Oakland County). The U.S. Attorney's Offices in the Eastern and Western Districts have coordinated Project Safe Neighborhoods (PSN) initiatives focused on gun and gang violence in the Counties suggested in this study. Various federally supported initiatives such as Detroit Ceasefire and Detroit PSN, Byrne Criminal Justice Innovation (Detroit and Flint), the Michigan Youth Violence Prevention Center (Flint), Detroit's participation in the Violence Reduction Network, among others, focus on the cities and neighborhoods within these cities suffering high rates of violent victimization.

The operation of DDACTS (Data Driven Approaches to Crime and Traffic Safety) by the Michigan State Police in Flint (Genesee County) already represents one such enforcement-guided effort to reduce violence. Part of the Secure Cities initiative, a prior evaluation found reductions of 14 percent in violent crime and 30 percent in robbery in the target locations of Flint (Rydberg, McGarrell, and Norris, 2014).

The DDACTS approach is suggested by prior research on the use of directed police patrol in gun crime hotspots. Studies conducted in Kansas City, Indianapolis, and Pittsburgh found that such directed patrols focused on illegal firearms in gun crime hotspots resulted in significant reductions in firearms violence (Sherman and Rogan, 1995; McGarrell et al. 2001; Cohen and Ludwig, 2003). More recent experimental evidence from St. Louis suggests that directed police patrols combined with officer self-initiated enforcement activity within tightly defined hotspots

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planning and assessment tool to support local communities in the identification and effective implementation of evidence-based violence reduction practices. Although currently in development, the School is happy to assist local communities in piloting the use of VRAT to assist their efforts. Please contact Ms. Heather Perez ([perezh@msu.edu](mailto:perezh@msu.edu)) for additional information.

significantly reduced firearm aggravated assaults over a nine-month period (Rosenfeld, Deckard, & Blackburn, 2014).

In addition to directed patrol at violent crime hotspots, problem solving initiatives focused on specific places and foot patrol have demonstrated promise for reducing violent crime (Braga and Weisburd, 2010; Braga, Papachristos, and Hureau, 2012; Ratcliffe et al., 2011).

Yet, there are questions about the long-term impact of focused enforcement efforts alone (e.g., Sorg et al., 2013). Consequently a broader set of prevention and intervention strategies can complement these enforcement strategies. These include the Ceasefire focused deterrence model that addresses group-based violence (Braga et al., 2001; McGarrell et al., 2006; Corsaro and McGarrell, 2010) and the drug market intervention focused on closing down violence-generating drug markets (McGarrell, 2014; McGarrell et al., 2013). Similar promising strategies include parolee forums with high risk parolees returning to high violent crime locations (Braga, Piehl, and Hureau, 2009; Papachristos et al., 2013) and the High Point, North Carolina focused deterrence approach to intimate partner violence.

Many other evidence-based and evidence-informed interventions are available ranging from primary prevention (e.g., nurse-family partnerships, pre-school), to offender-based interventions (cognitive-behavioral), and community-focused interventions (e.g., crime prevention through environmental design; blight elimination and greening). More information is available at [crimesolutions.gov](http://crimesolutions.gov). The common ingredient across these interventions is developing highly focused and targeted interventions based on data-driven problem assessments. Though possible options exist, any Michigan evidence-based approach should consider using detailed MICR data to inform the allocation of resources towards those at the highest risk in the areas with the highest risk of violent crime.

Finally, when considering focusing enforcement, prevention and intervention strategies in the counties, cities, and neighborhoods suffering from the highest rates of violence, it is important to remember that while violence is highly concentrated, it is still a sub-set of people and places that drive the violence problem. Within the high violent crime cities of Detroit, Flint, and Saginaw, most young, African-American men are not carrying and using illegal firearms; most citizens are law abiding; and many street segments, even in high crime areas, do not experience violent crime. This reality calls for careful analysis, highly focused interventions, police-citizen collaboration, balanced enforcement and prevention strategies, economic development and neighborhood revitalization efforts, and fair and respectful policing.

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