

KNOXVILLE GUN VIOLENCE PROBLEM ANALYSIS: 2019 - 2021

KNOXVILLE POLICE DEPARTMENT
CITY OF KNOXVILLE OFFICE OF COMMUNITY SAFETY

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INTRODUCTION



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Introduction

- A "problem analysis" is a set of analysis exercises designed to support the implementation of violence reduction strategies. This methodology has been developed over the last 25 years and used in dozens of cities nationally.
- This analysis establishes a common understanding of the local violence problem that guides and informs the work of civic, community, and criminal justice leaders to reduce violence.
- The problem analysis identifies the networks and individuals within a community who are at greatest risk of violence and helps tailor an intervention to reduce that risk.
- Though the methodology is informed by research, the problem analysis is primarily a practice document with implications for local policy.

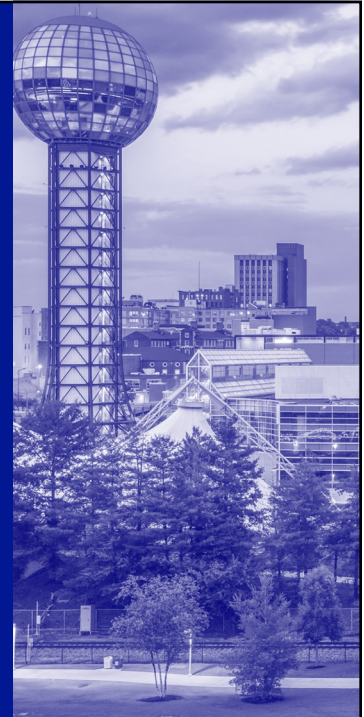
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Introduction

- This analysis examined all gun homicides in the City of Knoxville from January 2019 – December 2021 ($n = 82$) and all nonfatal shootings between January 2019 – December 2021 ($n = 188$).
- The 82 homicides involved 167 unique victims or identified suspects, and the 188 nonfatal shootings involved 313 unique identified victims or suspects.
- This analysis examines the characteristics of these incidents and the involved individuals, including demographics and criminal justice system involvement.
- The analysis includes information on groups and social networks at high risk of involvement in violence, including their sizes and relationships, and the spatial concentration of violence throughout the city.

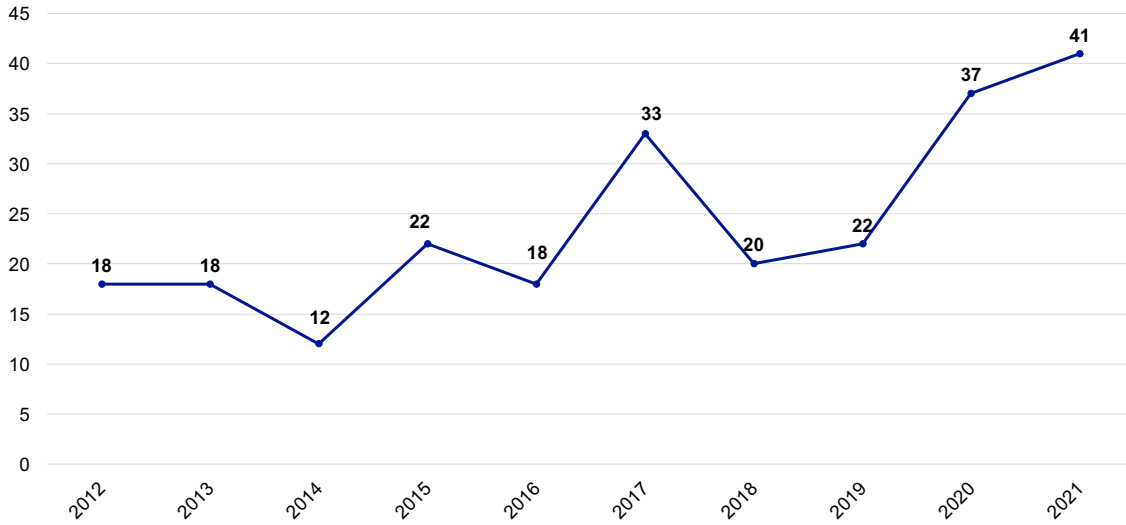
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CONTEXT & TREND DATA



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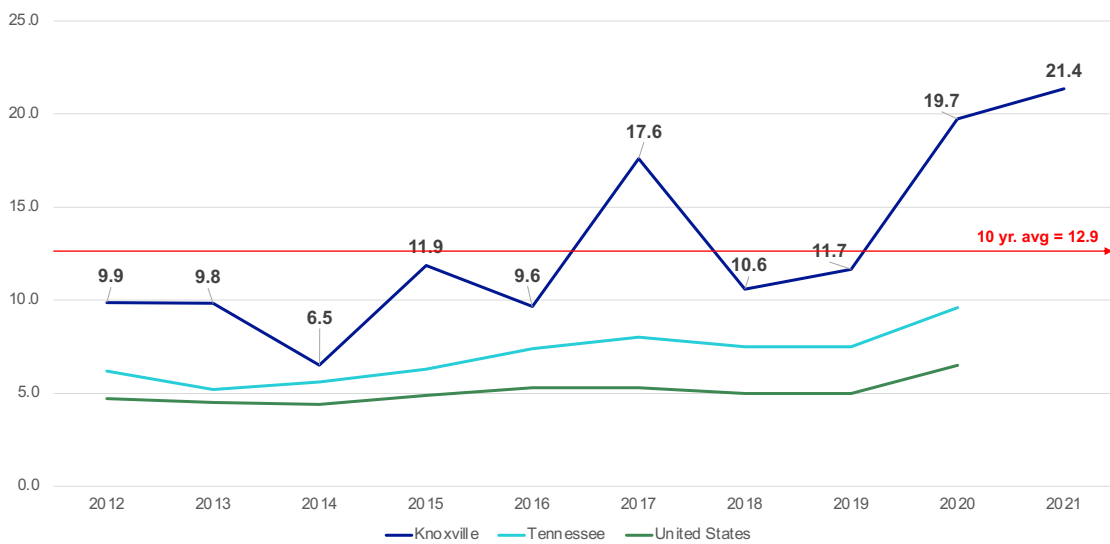
Knoxville Homicides: 2012 - 2021



Source: Federal Bureau of Investigation, Uniform Crime Reports, 2012-2020; KPD Internal Data for 2021

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Knoxville Homicide Rate (per 100,000 population): 2012 - 2021



Source: Federal Bureau of Investigation, Uniform Crime Reports, 2012-2020; KPD Internal Data for 2021

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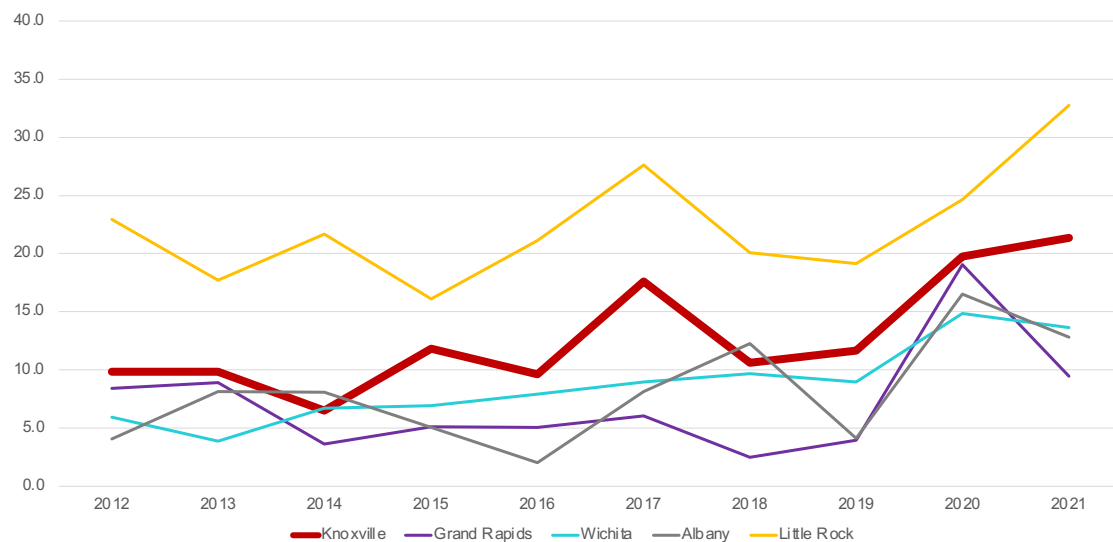
Knoxville Homicide Rate (per 100,000 population): Peer Comparison Cities

	2019 Homicide Rate (per 100,000 pop.)	Population	Population Density (per sq. mi)	Median Household Income	Unemployment Rate	Percent Below Poverty Line
Knoxville, TN	11.7	187,487	1,932	\$41,598	5.5%	22.5%
Grand Rapids, MI	4.0	199,417	4,443	\$51,333	5.8%	19.9%
Wichita, KS	9.0	390,566	2,454	\$53,466	5.6%	15.5%
Albany, NY	4.1	96,860	4,636	\$48,512	6.7%	22.9%
Little Rock, AR	19.2	198,067	1,688	\$53,620	4.2%	15.3%

Source: Federal Bureau of Investigation, Uniform Crime Reports, 2019; U.S. Census Bureau 2019 ACS
Peer cities generated through use of the "Peer City Identification Tool," Federal Reserve Bank of Chicago

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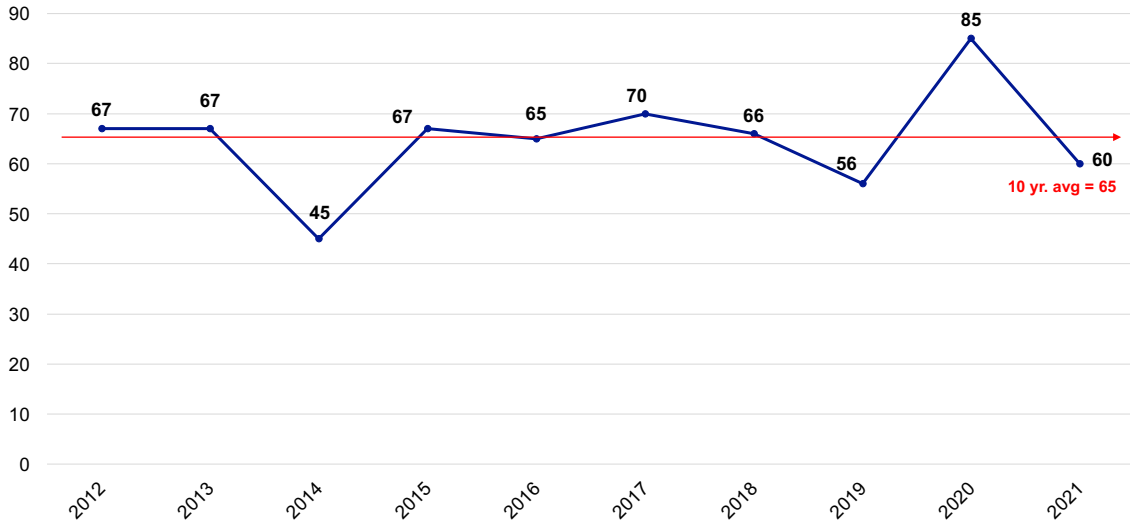
Knoxville Homicide Rate (per 100,000 population): 2012 – 2021 with Peer Comparison Cities



Source: Federal Bureau of Investigation, Uniform Crime Reports, 2012-2020; KPD Internal Data for 2021; Preliminary publicly available data sourced for peer cities in 2021

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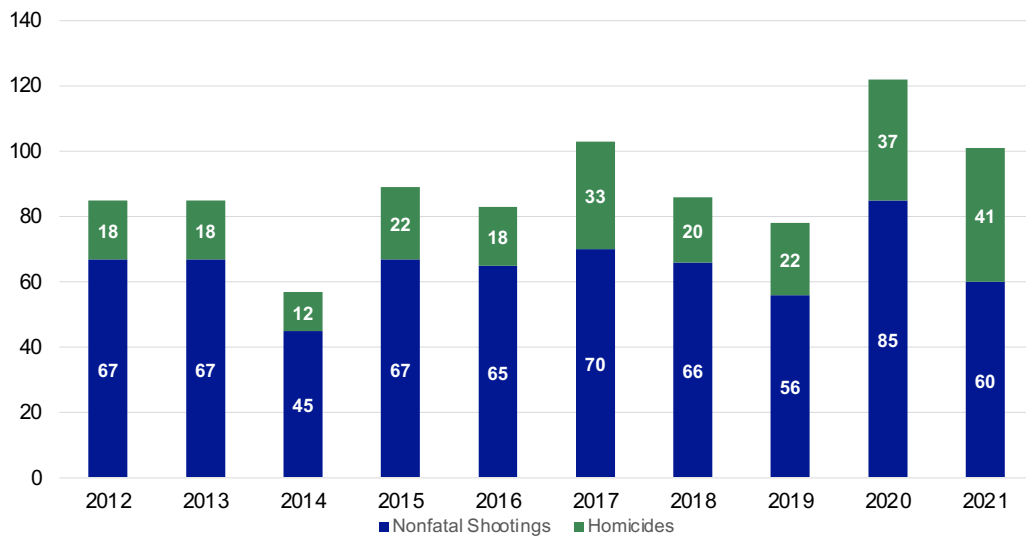
Knoxville Nonfatal Shootings: 2012 - 2021



Source: KPD Internal Data

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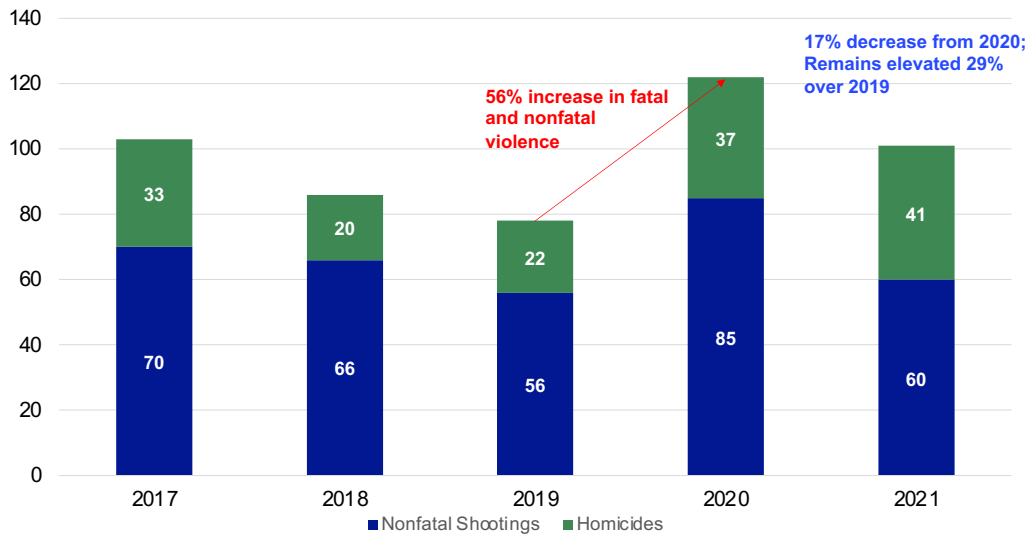
Knoxville Homicides & Nonfatal Shootings: 2012 - 2021



Source: Federal Bureau of Investigation, Uniform Crime Reports, 2012-2020; KPD Internal Data 2021

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Knoxville Homicides & Nonfatal Shootings: 2017 - 2021



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Summary

- Knoxville's average 10-year homicide rate is 12.9 per 100,000 population.
- U.S. cities experienced about an average 30% increase in homicides in 2020 compared to 2019 and nationwide, homicides continued to increase an average additional 5% in 2021.*
- Compared to 2019 (n=22), Knoxville experienced a 68% increase in homicides in 2020 (n=37). Homicides increased an additional 11% in 2021 (n=41).
- When fatal and nonfatal shootings are combined, the city experienced a 56% increase in gun violence overall in 2020 relative to 2019. Gun violence decreased by 17% from 2020 to 2021, but levels remain elevated 29% over 2019.

*Rosenfeld, R. & Lopez, E. (2022). Pandemic, social unrest, and crime in U.S. cities: 2021 year-end update. Washington, DC: Council on Criminal Justice.

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GUN VIOLENCE ANALYSIS



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Introduction

- Gun violence characterizes the overwhelming majority of community violence, and extant research demonstrates that fatal and nonfatal shootings are remarkably similar in terms of the people and circumstances involved.
- During this sample time period, Knoxville experienced 89 homicides and 188 nonfatal shootings. Of those homicides, 82 (92%) were gun homicides.
- The following gun violence analysis examines all gun homicides and nonfatal shootings occurring between January 1, 2019 – December 31, 2021.
 - These 270 incidents include 82 gun homicides and 188 nonfatal shootings.
- This section analyzes data on victim/suspect demographics, victim/suspect criminal history, and incident circumstances for fatal and nonfatal shootings.

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GUN VIOLENCE ANALYSIS

Victim and Suspect Demographics



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Data Note

- There were 480 unique victims and/or suspects across this sample of homicides and shootings.
 - 38 (8.0% of all unique individuals) were present more than once in this dataset, meaning that they were the victims and/or suspects in more than one incident between January 1, 2019 and December 31, 2021.
 - Of those, 18 individuals were victims in one or more cases and suspects in one or more cases.
 - These 18 individuals are included in both the victim subcategory and the suspect subcategory for all demographic and criminal history analyses.
 - These individuals are only counted once in the “Victims & Suspects” category.

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Victims & Suspects: Sex and Race

	FATAL & NONFATAL SHOOTINGS (N=270)			KNOXVILLE POPULATION
	Victims (n=296)	Suspects (n=202)	Victims & Suspects (n=480)	
Sex				
Male	79.7%	90.6%	83.5%	48.0%
Female	20.3%	9.5%	16.5%	52.0%
Race				
Asian	0.0%	0.5%	0.2%	1.7%
Black	71.6%	81.7%	74.7%	16.9%
Hispanic	0.3%	0.0%	0.2%	5.4%
White	28.0%	17.8%	24.8%	72.4%

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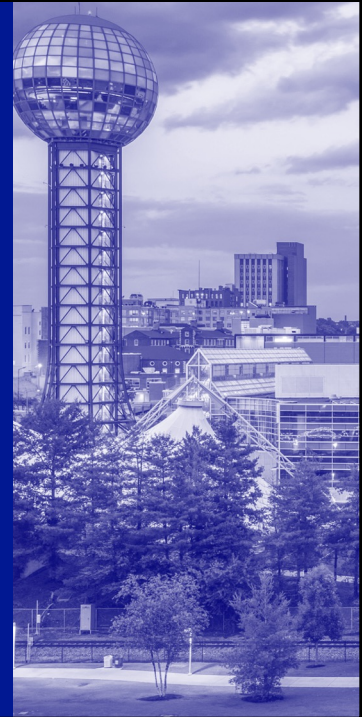
Victims & Suspects: Age

	FATAL & NONFATAL SHOOTINGS (N=270)		
	Victims (n=296)	Suspects (n=202)	Victims & Suspects (n=480)
Age			
17 & under	10.9%	15.0%	12.4%
18-24	31.6%	32.0%	31.1%
25-34	28.9%	30.5%	29.8%
35-44	16.7%	14.0%	16.0%
45-54	5.8%	3.5%	4.8%
55+	6.1%	5.0%	5.9%
Average Age	29.4	28.1	29.1

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GUN VIOLENCE ANALYSIS

Victim and Suspect Criminal History



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Data Note

- Criminal history data was provided by the Tennessee Bureau of Investigation (TBI). The research team coded prior criminal involvement, convictions, and sentences, but several data caveats increase the likelihood that victim and suspect criminal history is undercounted in this section.
 - Cases that were nolleed or dismissed are often expunged from an individual's criminal history report. As a result, this data largely reflects convictions rather than all arrests.
 - Probation and incarceration information relating to convictions was provided inconsistently on criminal history reports. This data only reflects prior probation and prior incarceration when this was clearly noted on the report.
 - Felony and misdemeanor charge status was provided inconsistently on criminal history reports. Though the research team referenced related statutes to determine severity, a substantial portion of offenses were "wobblers" charges that may be classified as felonies or misdemeanors dependent on particular case circumstances. Such offenses were unable to be coded as felonies or misdemeanors in our dataset based on the limited information available on criminal history reports.
- **Due to these limitations, results in this section are conservative estimates of criminal justice system involvement and should be interpreted with caution.**

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Victims & Suspects: CJ System Contact

	FATAL & NONFATAL SHOOTINGS (N=270)		
	Victims (n=296)	Suspects (n=202)	Victims & Suspects (n=480)
Known to the CJ system prior to the incident	60.8% (180)	67.3% (136)	62.7% (301)
Of those known to the CJ system:			
Prior incarceration	35.0%	42.7%	38.9%
Convicted of felony	35.0%	42.7%	38.5%
Prior probation/parole	45.6%	38.2%	43.5%
Active probation/parole	21.1%	25.0%	21.3%
Average number of prior cases	7.9	7.6	7.9
Average number of prior felony cases	1.8	2.2	2.0

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Victims & Suspects: Prior Offense Detail

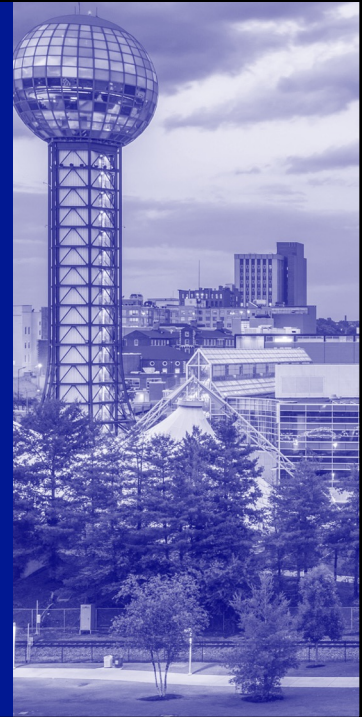
	FATAL & NONFATAL SHOOTINGS (N=270)		
	Victims (n=296)	Suspects (n=202)	Victims & Suspects (n=480)
Of those with prior arrests:	60.8% (180)	67.3% (136)	62.7% (301)
Serious violent offenses (Agg.)*	0.7	0.8	0.7
Lesser violent offenses	0.9	0.9	0.9
Weapons offenses	0.4	0.5	0.4
Drug offenses	1.9	2.2	2.0
Property offenses	1.2	1.1	1.2
Disorder offenses	2.0	1.6	1.9
Fraud offenses	0.2	0.2	0.2
Other offenses	1.9	1.8	1.9
Total	9.1	9.1	9.2

*Aggravated violent offenses were classified as serious violent offenses in this coding scheme. All other violent charges were coded as lesser violent offenses.

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GUN VIOLENCE ANALYSIS

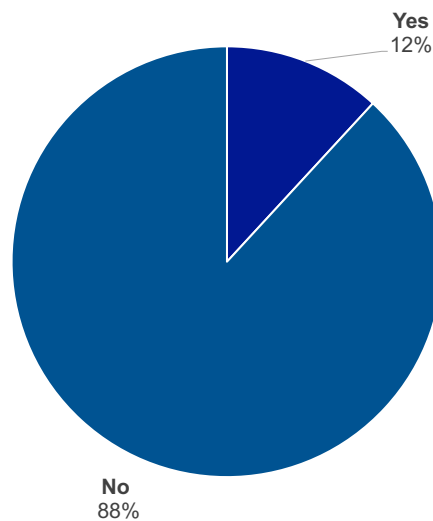
Incident Circumstances



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Group-Related GV Incidents

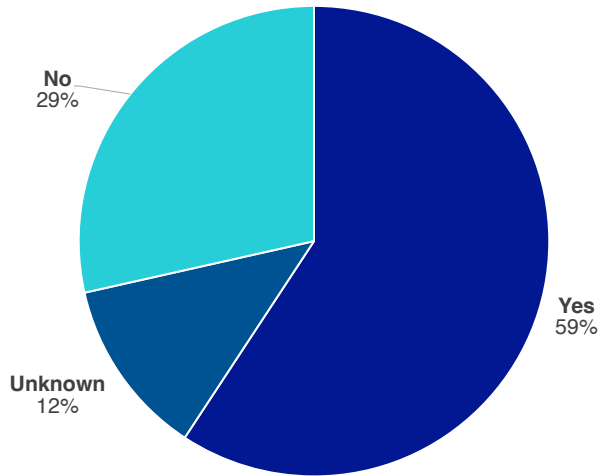
(Motive for the incident was a group-related conflict)



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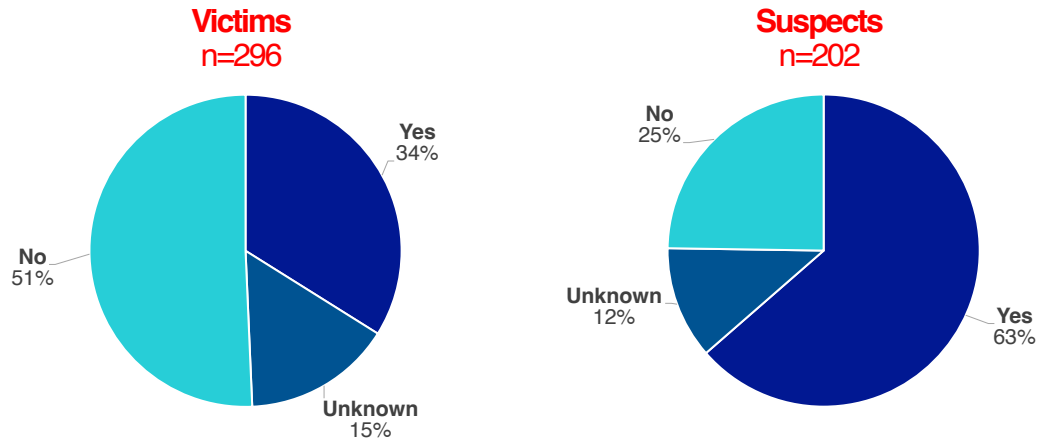
Group-Member Involvement: GV Incidents

(Victims and/or suspects were group-associated, regardless of incident motive)



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Group-Member Involvement: Individuals



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Incident Circumstances

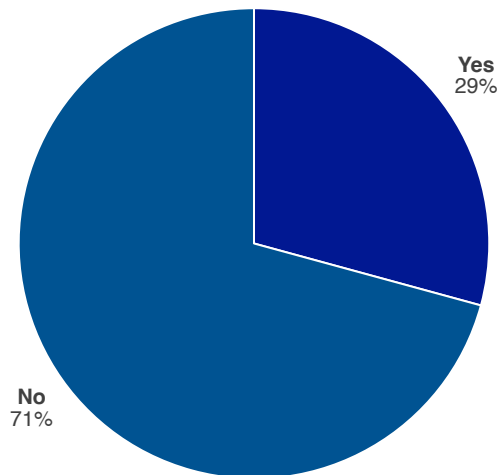
Circumstance	N	All GV Incidents (n = 270)	Exclude Unk (n = 206)	% Incidents GMI
Personal dispute	74	27.4%	35.9%	60.8%
Group-related dispute	32	11.9%	15.5%	100%
Drug robbery	30	11.1%	14.6%	83.3%
Drug-related dispute	24	8.9%	11.7%	54.2%
Sudden dispute	20	7.4%	9.7%	55.0%
Domestic dispute	13	4.8%	6.3%	38.5%
Robbery*	9	3.3%	4.4%	66.7%
Other	4	1.5%	1.9%	75.0%
Unknown	64	23.7%		34.3%

*Includes carjackings and home invasions

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Drug-Related Incidents

(Drug-related disputes, drug robberies, and personal disputes with drug ties)



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External Connections

- Approximately 10% of all fatal and nonfatal shootings 2019-2021 had known connections to other cities in which:
 - Victims/suspects lived outside of Knoxville
 - Victims/suspects had just recently moved to Knoxville
- Of these cases, 60% were tied to Detroit, MI and another 24% were tied to Chattanooga, TN
- 75% of cases with regional ties were also group-member involved and 52% had drug ties

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Summary

- The victims and suspects involved in gun violence are predominantly Black (75%) males (84%) between the ages of 18-34 (61%).
 - Compared to overall Knoxville population demographics, Black individuals are overrepresented among gun violence victims and suspects by a factor of about 4.4.
- According to TBI criminal history data, at least 63% of victims and suspect had prior criminal justice system contact before their involvement in these incidents, but as noted, this is likely an undercount due to data limitations.
- Of those with prior criminal cases, most have extensive criminal involvement:
 - 63% had been previously incarcerated, convicted of a felony, and/or on prior or active probation/parole.
 - Victims and suspects committed an average 9.2 prior criminal offenses before their involvement in the gun violence incident– predominantly drug, disorder, property, and lesser violent offenses, respectively.

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Summary

- About 12% of incidents involve motives relating solely to group-related conflicts.
- However, at least 59% of incidents involve group members as victims, suspects, or both.
- Regardless of group member involvement, most gun violence incidents in Knoxville evolve from personal disputes (e.g., over money, women, etc.) between known individuals (27%), group-related conflicts (12%), and drug robberies (11%).
- A significant proportion of gun violence incidents in Knoxville are connected to drug-related circumstances (29%). This percentage includes drug robberies, drug-related disputes, and personal disputes with other drug ties.
- At least 10% of gun violence incidents in Knoxville have connections to other cities. Group/gang and narcotics activity tends characterize most of these incidents.

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HIGH-RISK GROUPS AND NETWORKS



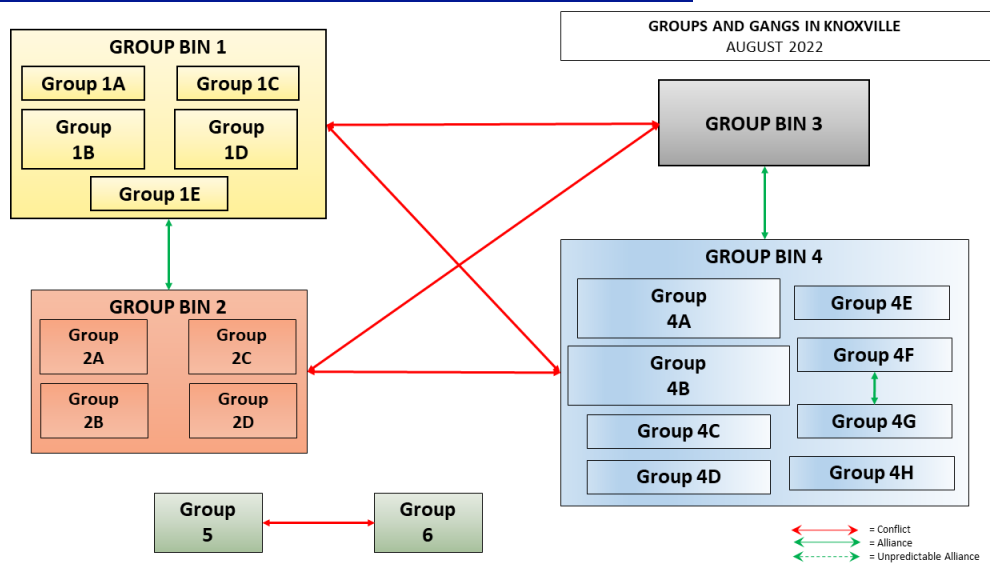
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Introduction

- This section presents information about active high-risk violent networks in Knoxville.
- KPD personnel identified **17 active groups/gangs** in the city.
- Almost all active groups in Knoxville are subsets of a small number of major groups.
- Groups are primarily engaged in narcotics sales and members also generate criminal profit through robberies, home invasions, and motor vehicle theft.
- The most significant conflicts associated with violence in Knoxville over the study period involved sets of Group Bin 4 versus sets of Group Bin 1.

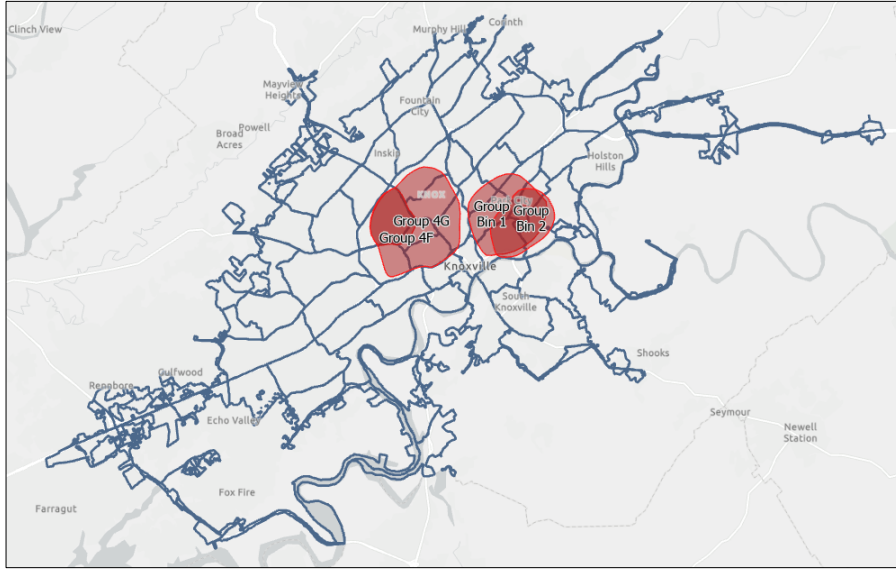
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Identified Groups in Knoxville



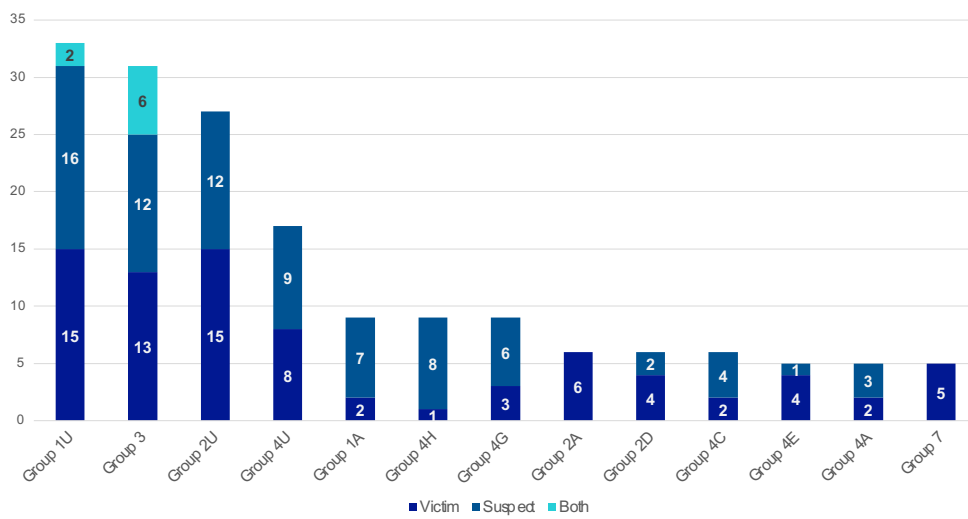
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Identified Groups in Knoxville



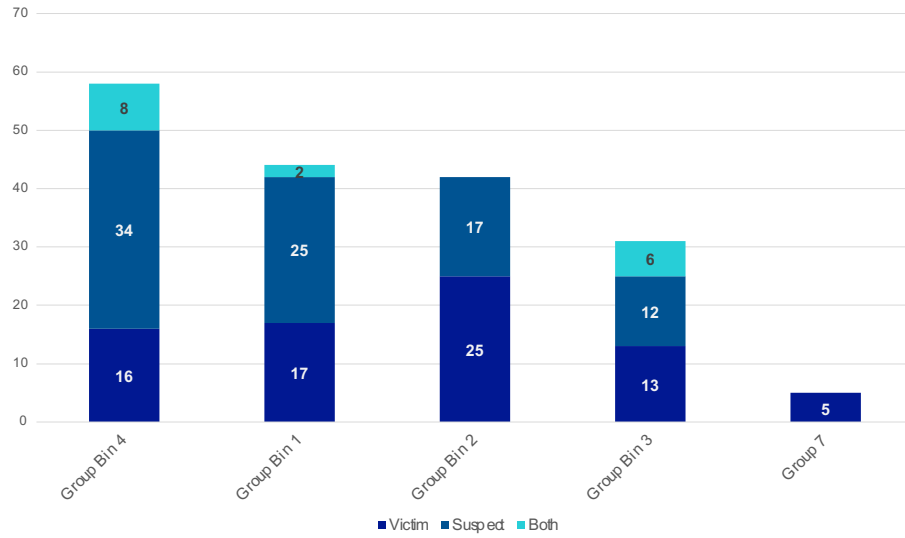
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Groups Involved in 5+ Shootings



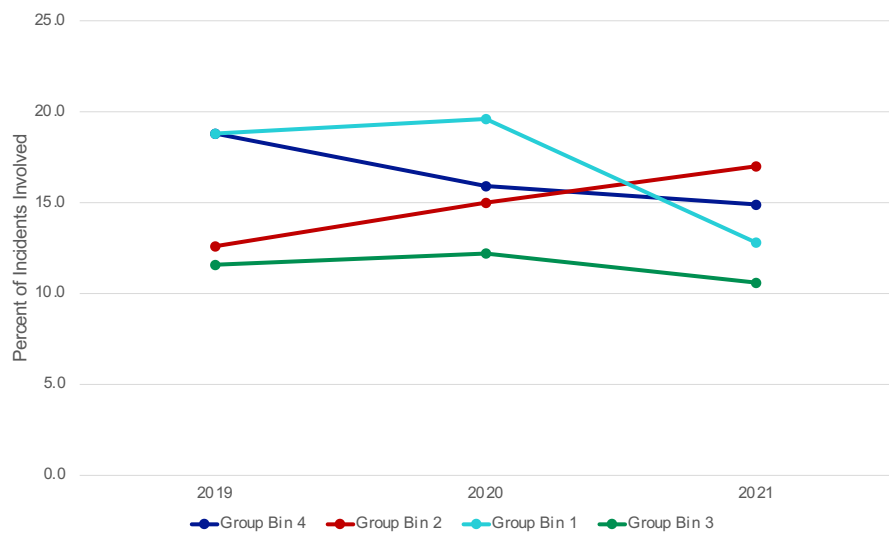
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Groups Involved in 5+ Shootings (Collapsed Sets)



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Group Involvement in Shootings by Year



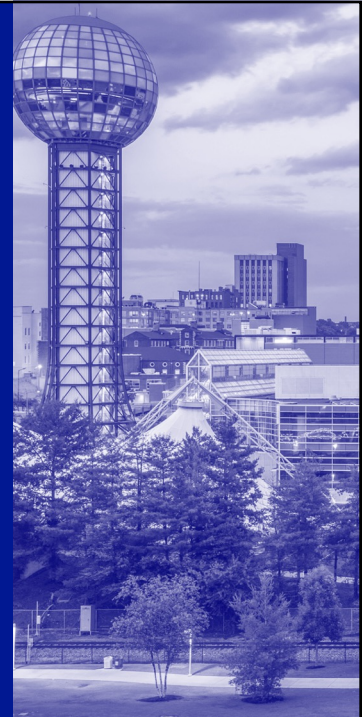
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Summary

- KPD personnel identified at least 17 active groups/gangs in the city.
 - Groups/gangs in Knoxville are comprised of an estimated 330-460 individuals, or about **0.2% of the city's total population.**
- The most violently active groups are subsets of Group Bin 4 and Group Bin 1, but the involvement of subsets of Group Bin 2 in shootings has steadily increased over the study period.
- Members of identified groups/gangs were described as being scattered throughout the city, but KPD personnel identified four key areas in which these groups are most active.
 - Identified group areas cover about 11.4 square miles, or about 11.5% of Knoxville's total land area.
 - **49.8% of all gun violence incidents** occurred within these identified group areas.
 - 70.4% of these occurred within areas associated with subsets of Group Bin 1 and Group Bin 2 specifically.

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SPATIAL ANALYSIS



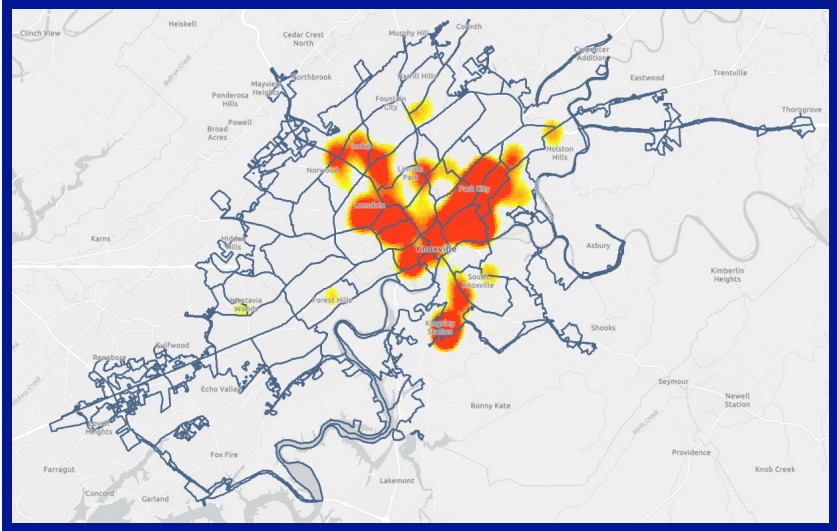
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Gun Violence Incidents



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Gun Violence Hot Spots



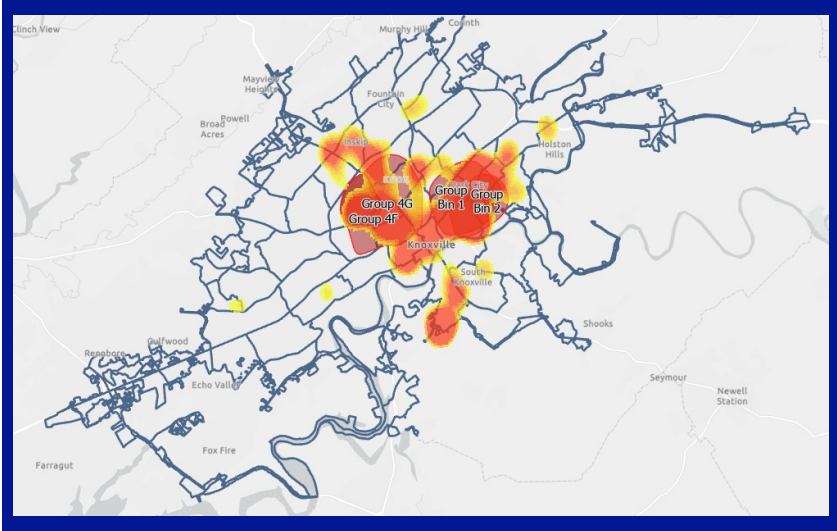
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Gun Violence Incidents Over Group Areas



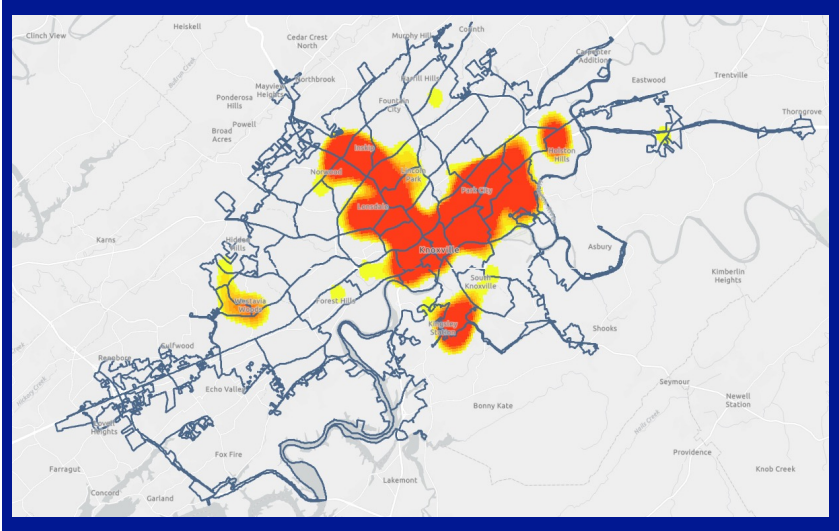
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Gun Violence Hot Spots Over Group Areas



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Drug-Related Violence Hot Spots



GUN VIOLENCE ANALYSIS

Year-Over-Year Comparisons



GV Victims & Suspects: Demographics

	FATAL & NONFATAL SHOOTINGS (N=270)					
	2019		2020		2021	
	Victims	Suspects	Victims	Suspects	Victims	Suspects
Male	73.3%	90.2%	79.7%	89.0%	84.3%	92.2%
Black	74.7%	76.5%	69.9%	74.7%	71.3%	92.0%
Average Age						
17 & under	12.0%	15.7%	9.9%	12.3%	11.1%	17.1%
18-24	34.7%	29.4%	32.4%	39.7%	28.7%	26.3%
25-34	25.3%	27.5%	29.7%	20.6%	30.6%	42.1%

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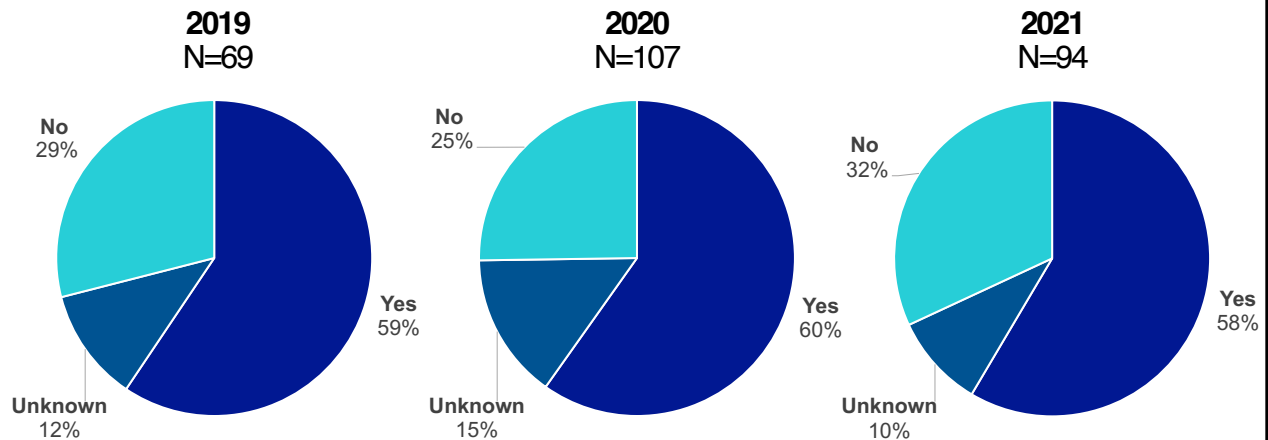
GV Incidents: Circumstance

	2019	2020	2021
Circumstance	N=69	N=107	N=94
Personal dispute	20.3%	28.0%	27.7%
Group-related dispute	18.8%	11.2%	6.4%
Drug robbery	8.7%	12.2%	11.7%
Drug-related dispute	7.3%	10.3%	8.5%
Sudden dispute	4.4%	5.6%	11.7%
Domestic dispute	5.8%	5.6%	3.2%
Robbery	2.9%	4.7%	2.1%
Other	1.5%	0.9%	2.1%
Unknown	29.0%	17.8%	26.6%

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GV Incidents: Group Member Involvement

(Victims and/or suspects were group-associated, regardless of incident motive)



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Summary

- The sex, race/ethnicity, and age of gun violence victims and suspects has remained largely consistent from 2019-2021.
- Circumstances leading to gun violence incidents were stable across the three-year period with no statistically significant shifts.
- There were no statistically significant changes in group-member involvement in gun violence incidents over the three-year study period.

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RECOMMENDATIONS



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Recommendations

- The findings of this problem analysis should be used by the KPD and the City of Knoxville to assess their existing and future violence interventions to ensure that they focus on the people, places, and circumstances driving the most violence citywide.
- As the KPD and the City shape their ongoing violence reduction strategies, several key recommendations emerge from the findings of this analysis:

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1. Address High-Risk Groups/Gangs

- **Individuals associated with groups/gangs drive a significant proportion of gun violence in Knoxville.**
 - Group-member involved gun violence typically results from personal disputes among individuals rather than group-on-group conflicts.
 - Association with a group/gang increases one's risk of being involved in a variety of violent incidents— e.g., personal disputes, group-related conflicts, drug disputes.
 - Proactively identifying and intervening with groups and group-involved individuals at the highest risk for violence reduces their risk of violent offending and/or victimization.
 - ✓ Increase KPD resources dedicated to intelligence gathering and enforcement operations for groups/gangs and group-involved individuals at the highest risk for involvement in violence. Expand criminal justice partnerships (e.g., TN DOC) to expand sources of gang-related intelligence. Groups/gangs and group-involved individuals not involved in violence should be deprioritized.
 - ✓ Consider a group violence reduction strategy in the City of Knoxville relying on collaborative partnerships between community-based organizations and criminal justice agencies.

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2. Engage VHR People

- **Those at the very highest risk (VHR) for involvement in gun violence as victims and/or offenders are identifiable and share several common characteristics.**
 - Victims and suspects are primarily Black men aged 18-34.
 - Involvement or associations with group-involved individuals significantly increases one's risk of being involved in a gun violence incident.
 - The majority of victims and suspects have extensive criminal justice system involvement.
 - Proactively identifying and intervening with individuals early may reduce their risk of shooting or being shot.
 - ✓ Utilize these data-informed VHR characteristics to inform who is prioritized for outreach, service delivery, and/or enforcement.
 - ✓ Organize regular meetings geared toward identifying and engaging VHR individuals to reduce risks of conflict initiation, escalation, or retaliation.

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3. Prioritize Targeted Drug Enforcement

- **Drug involvement is a significant risk factor for violent victimization or offending. A significant portion of gun violence evolves from drug-related circumstances and both victims and suspects are likely to have prior drug arrests.**
 - At least 29% of gun violence incidents occurring from 2019-2021 involved drug-related circumstances.
 - Active groups/gangs in Knoxville were noted to be heavily involved in narcotics sales.
 - ✓ Increase KPD resources dedicated to narcotics-related intelligence gathering and enforcement. Enforcement operations should target actively violent drug markets and drug dealers at the highest risk for involvement in gun violence. Nonviolent drug markets, dealers, and users should be deprioritized.
 - ✓ Citywide outreach and service delivery providers should consider individuals engaged in narcotics sales to be at more immediate risk for involvement in gun violence.

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4. Focus on High-Risk Places

- **Violent hot spots in Knoxville are tightly clustered and overlap heavily with known group/gang areas.**
 - Group/gang areas cover approximately 11.5% of Knoxville's total land area.
 - Within these areas, this problem analysis identified 8 key locations in which most fatal and nonfatal shootings occurred.
 - ✓ Focus patrols, targeted enforcement, and problem-oriented policing in these locations. Concentrate intelligence gathering on the VHR groups/gangs and criminal activities driving violence in these areas. Update place-based enforcement priorities regularly to ensure that activities are directed toward the most high-risk areas.
 - ✓ Citywide outreach, service delivery, cleaning and greening, community improvement, and other place-based prevention projects should prioritize individuals and neighborhoods within noted locations and group/gang areas.

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5. Enhance Investigative Resources

- **The KPD identifies suspects of homicides and shootings at high rates compared to peer departments— suspects were identified and/or arrested in at least 59% of gun violence incidents occurring 2019-2021.**
 - Notably, suspect identifications have increased year-over-year in nonfatal shooting cases but have decreased year-over-year in gun homicides.
 - Despite the KPD's high rate of identifications and arrests, restructuring investigative units for homicide and nonfatal shooting case specialization may reduce detective caseloads, increase committed case time, and improve the likelihood of case clearance.
 - ✓ Implement a team of specialized homicide investigators as well as a team of specialized nonfatal shooting investigators.
 - ✓ Explore changes to policies and practices (e.g., peer case review meetings, advanced training, scene response protocols) that may enhance investigative effectiveness.

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6. Develop Collaborative Responses

- **The combination of individual-level characteristics and gun violence motives outlined in this analysis require a collaborative response across criminal justice and community-based organizations.**
 - ✓ Implement regular shooting reviews among criminal justice personnel to discuss cases, advance investigations, and identify events/conflicts at high risk for retaliatory violence.
 - ✓ Implement regular coordination meetings between criminal justice, city, and community-based organizations to identify subjects in need of immediate intervention.
 - ✓ Consider a focused deterrence strategy (e.g., a group violence reduction strategy) that is shaped by the needs and capacities of the City of Knoxville.
 - This approach should direct outreach and service delivery toward those at the very highest risk for involvement in violence. These efforts should be paired with targeted enforcement focused on those who continue to engage in violence.

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