

Harborview Medical Center Violence Intervention and Prevention Team:

Crafting a Local Approach to the Prevention of Gun Violence

Gun Violence in the United States in 2025

Gun violence is a public health crisis that demands immediate action. As of the date that this case study was being compiled and finalized (May 6, 2025), the Gun Violence Archive 2025 had compiled in the year 2025 alone, a total of 8,568 injuries in the United States since January 1, 2025, and as the reader of this case study the number has since increased; it grows daily. Although many efforts are being made in Washington State to keep guns stored safely, and many laws are being proposed to strengthen requirements for responsible gun owners, it is not enough for the patients and families we see in the hospital every day who have fallen victim to gun violence in their communities. “The public health, medical, and scientific research communities can no longer be at the mercy of US state and federal legislators, simply waiting for them to successfully pass or repeal laws as the only source of scientific and policy innovation to prevent gun violence in the US. This is a weak and unidimensional forfeiture in the face of a complex and intransigent problem for which the US public are rightly demanding innovative, effective, and immediate solutions (*Branas, Reeping, & Rudolph, 2021, pg. 243*).”

“The recommendations of the U.S. Surgeon General’s Firearm Violence: A Public Health Crisis in America advisory issued on June 25, 2024, called for strengthened data collection, increased research on the consequences of gun violence, research on prevention strategy implementation, community violence intervention implementation, increased role of emergency preparedness and the health care system in preventing gun violence, promotion of safe storage of guns and ammunition, policy changes, and improved mental health supports. “In the US, the gun homicide rate is roughly 25 times higher and the gun suicide rate 8 times higher than in other high-income countries (*Branas, Reeping, & Rudolph, 2021, pg. 243*).” The Violence Intervention and Prevention Program (known as VIPP) at Harborview Medical Center is on the forefront of these data collection efforts. The VIPP Team is also actively leveraging the data from the patients to help with intervention and healing, and to inform suggested strategies and promote continuing education of medical professionals around gun violence patients and to inform prevention strategies.

Gun Violence in King County in 2025

"Firearm death rates in King County increased 16% overall between 2018 and 2022 and remained high in 2023. Increases in firearm violence are attributed to overlapping factors including (1) an increase in firearm purchases during the pandemic, (2) an increase in youth online exposure and time on social media, and (3) increased modifications of firearms into more dangerous, automatic weapons (*100 Days of Action 2024 Report*, pg. 4)." The Violence Intervention and Prevention Program at Harborview Medical Center serves the King County community as well as the state of Washington.

Washington State's First Hospital-Based Violence Intervention and Prevention Program

The Violence Intervention and Prevention Program at Harborview Medical Center in Seattle, Washington is the state's first ever hospital-based violence intervention and prevention program. Harborview Medical Center serves as a safety net hospital and mission-driven healthcare facility seeking to serve the most vulnerable residents of King County while providing tertiary care to the Pacific Northwest. Harborview Medical Center is one of the busiest Level 1 Pediatric and Adult Trauma Centers in the Country, serving the population within 5 states: Washington, Wyoming, Alaska, Montana, and Idaho (*Cities United Presentation 2024*).

Harborview Medical Center began the Violence Intervention and Prevention Program to meet the needs patients of gunshot wound injuries. The history of the program began as Paul J Carter III was serving the hospital as a peer-support volunteer at bedside, visiting hospitalized patients who were recovering from traumatic injuries starting in the fall of 2017. Paul was tragically a gun violence victim himself in 2015. During that time of volunteering, the trauma Surgeons were seeing the gaps in resources and recovery for patients who were injured by gun fire, thus partnering with King County Public Health to create the role of Violence Intervention Specialist in the fall of 2021, Paul J Carter III was hired officially as a hospital team member with a role as Washington state's first ever hospital-based Violence Intervention Specialist. The outcome was so successful that in the Spring of 2023, a second Intervention Specialist Tarrell Harrison Jr., along with a full-time Social Worker, Lina Benson and Resource Navigator Belén Sánchez as well as an Administrative Assistant Mimi Rogers were all added to the program and the "VIPP Team" as it is known within Harborview was born.

Harborview's Violence Intervention & Prevention Program mission is to bridge gaps between healthcare and existing community resources through committed engagement to promote health for patients and their supporters impacted by gunshot wound injuries & gun violence. Since the beginning of the VIPP Team, well over 600 patients have been helped, addressing social determinants of health, connecting patients to local community resources, arranging transportation to follow up medical appointments, and assisting patients with the application for Crime Victims Compensation (*Cities United Presentation 2024*). These efforts have successfully helped impact violence intervention needs of our patients.

State's First Ever Crime Victims Compensation Tracking Efforts

Two years after the beginning of the Violence Intervention and Prevention team at Harborview Medical Center, has been able to quantify the first set of financial outcomes of the state's first ever tracking system of crime victims' compensation applications to measure not only the positive impact and financial help to our patients during their time of need when they cannot work during physical and emotional recovery following gunshot wound injuries, but also the positive financial help that the medical bill payment has had on the hospital. The bills that patients would have had to pay out of pocket or apply for charity care were instead paid by the Crime Victims Compensation Program in Washington State. The funds paid through Crime Victims Compensation in Washington state are part of the Crime Victims Fund, which was established by the Victims of Crime Act (VOCA) of 1984, which is financed by fines and penalties from convictions in federal cases, not from tax dollars (*OVC Website*).

First Measure of Crime Victims Compensation Benefits

Of the approved applications the Violence Intervention and Prevention Program had tracked at the time of the first analysis of financial outcomes of this new process, what was discovered is that of the patients who were tracked, 104 out of 180 patients received some sort of benefit from their Crime Victims Compensation claim (57.77%) 76 people received no benefit even though their application was open and allowed.

There were three main benefits that we tracked as follows:

1. **Wage loss compensation** paid to patients for their time off work post-injury: \$540,394.03. The maximum benefit that can be paid to a patient for wage loss compensation is \$15,000 per claim).
2. **Medical bill compensation** paid directly to Harborview Medical Center: \$1,755,084.59. The maximum benefit that can be paid to a hospital or medical providers for treatment and follow up after a gunshot wound injury is \$150,000 per claim).
3. **Funeral costs** reimbursed or paid directly to families for the loss of their loved one: \$104,310. The maximum benefit that can be paid to a family for funeral costs to the families who have lost a loved one to gun violence is \$7,990 per claim.

Harborview Medical Center's Violence Intervention and Prevention Program is now working on the next phase of leveraging this data to be able to craft violence prevention strategies for the patient population we serve.

How Can a Hospital Prevent Firearm Injuries Within the Communities They Serve?

As previously stated, one of the missions of the Violence Intervention and Prevention Team at Harborview Medical Center's is to begin bridging gaps between healthcare and existing community resources through committed engagement to promote health for patients and their supporters impacted by gunshot wound injuries & gun violence. There is a strong commitment to being smart with all of our resources and finding solutions that can be implemented quickly and have an immediate positive impact. "Although legislative avenues remain a primary strategy to prevent gun violence, there is a rich emerging scientific literature evaluating the effectiveness of interventions and programs that do not depend on state or federal legislation or law enforcement (*Branas, Reeping, & Rudolph, 2021, pg. 243*)."

The strategies that Harborview Medical Center is implementing can hopefully serve as a blueprint and an inspiration for future research as well as future hospital-based violence intervention and prevention programs that are starting to serve their communities.

Harborview Medical Center's Violence Intervention and Prevention Program is using the state's first ever Crime Victims Compensation Program tracking system, as well as data collected from law enforcement officers who accompany victims to the hospital and provide a brief description of what occurred along with a case number and contact information, as well as police blotters, and media reports to quantify the true cost of gun violence in our region.

"It is important to gain an understanding of where, and why, gun violence occurs (Blair et al, 2021, pg. 1)" The Violence Intervention and Prevention Program at Harborview Medical Center is on the cutting edge of violence prevention for the region and population it serves in these efforts to not only help the victims and their families recover after being injured by gun violence, but also strategically leveraging the data that we receive to analyze where and how patients are being injured to provide meaningful intervention strategies within the hospital, clinics and education for the public.

Methodology

"A comprehensive public health approach is needed to address the gun violence epidemic (*Villarreal et al, 2024, pg. 15*)" The inspiration for the approach taken in this case study has been the combination of other models and ideas from proven methods used in other parts of the country and the world in violence prevention. One example is the Cardiff Violence Prevention Model. "The Cardiff Violence Prevention Model supports the need to create tailored interventions based on the geospatial distribution of gun violence. Thus, applying both the disciplines of public health and criminology, known as "EpiCrim," can allow researchers to understand gun violence in a more comprehensive manner (*McMillan et al, 2024, pg.8*)."

Other researchers have attempted mapping solutions to analyze data related to gun violence. For example, according to a research proposal found on Google Scholar in word document format, not officially published from 2016 written by Alice Tiffany, the idea for proposal was to use "Arc GIS Pro, a mapping software, to map all documented instances of gun violence in Washington

State in 2016, and then overlay that map with the age of the perpetrator, the gender of the perpetrator, and whether the perpetrator had a record of mental illness prior to the shooting from records obtained from the Gun Violence Archive." (*Tiffany, 2016*)."

Crime Victims Compensation Recipients: 2024 Data

Although the Violence Intervention and Prevention Program began measuring the claims of program participants, after seeing the financial benefits to both the patients and families we serve, as well as help to pay critical hospital bills and ensure that those costs don't become a burden to our patients and families, it made sense to look further into the data and see how we could develop and craft effective gun violence prevention strategies for our region, as well as develop a blueprint that could be duplicated throughout the nation. The sample size of the original number of patients approved for a claim with the Crime Victims Compensation Program was originally 180 people. However, some of these patients were injured prior to the onset of our program. For this reason, the sample size of this case study was selected based on the date of injury in the year of 2024 only. Dates of injuries ranged from January 1, 2024, through the end of October 2024.

Data Collection Plan and Steps

The sample used for this case study was a total of 102 male and female patients. It is noteworthy that this case study is also the first of its kind for our region that is analyzing all victims of gun violence as verified by acceptance and allowance of a Crime Victims Compensation, which is dependent of the receipt of an official police report verifying that the individual was in fact the victim of the crime in question, and not the perpetrator of the crime. Furthermore, what is groundbreaking about this case study is that it is the first of its kind that is seeking to analyze violence prevention strategies by analyzing the age, gender, location, and circumstances surrounding the crime from the standpoint of the victims, as well as the area of the body that was injured, not looking at all at data from the perpetrators specifically. Most violence prevention efforts are developed by taking the approach of analyzing how violence could have been prevented in the first place from the perpetrator's perspective or keeping the gun out of the hands of an individual who cannot use it responsibly. In contrast, this case study began by mapping the location of the crimes where the victims are injured as reported by police. The location of the crimes was mapped down to the intersection of the crime, and if it was unverifiable it wasn't used for a data point. The goal of mapping the location of the crime down to the intersection is to be able to visibly see as accurately as possible where the crimes are happening in our region.

Age Breakdown

The first consideration of the analysis was to measure based on gender and age. The first two sets of ages were measured from ages 0-13, and ages 14-18 due to the risk factor increasing dramatically at age 14. "The risk of being a victim of a major gunshot wound rises abruptly at age 14 (*Freed, Milzman, Holt & Wang, 2004, pg. 169*)." "Approximately one half of unintentional firearm injury deaths among children and adolescents occurred at their home; playing with or showing the firearm to another person was the most common precipitator (*Wilson et al, 2023, pg. 1338*)." The subsequent groups were measured from ages 19-24, which is typically the age that one is considered of college age or beginning their early career life. The next group was measured from the ages of 25-30, the ages that many people tend to begin settling down into married and family life. The final set of ages was measured from ages 31-45, which is the age group when people typically are more settled into a career and have started a family. The next group is considered the middle-aged group, from 46-54, and ages 55+, which is the age that one officially becomes considered a senior citizen. These age groups can help distinguish the places and circumstances surrounding how and where they become the victims of gun violence which can help craft appropriate violence prevention strategies for our specific region based on local data from Washington state specifically.

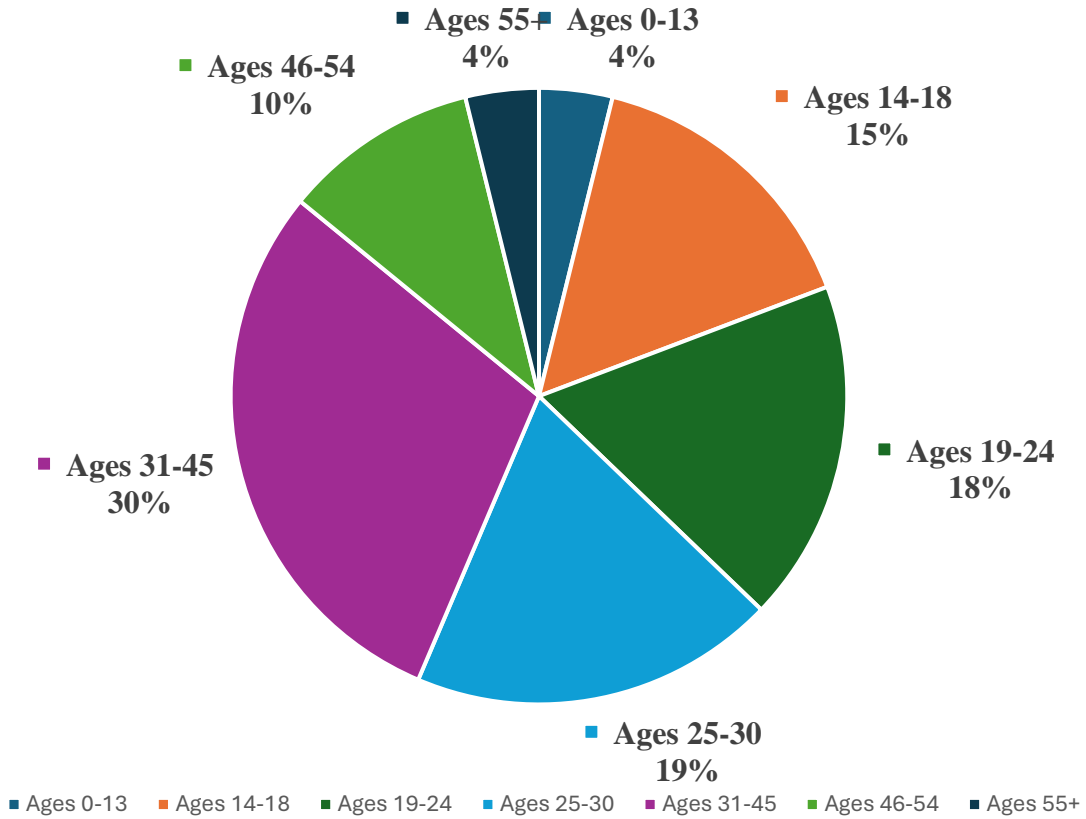
A Note about Gender

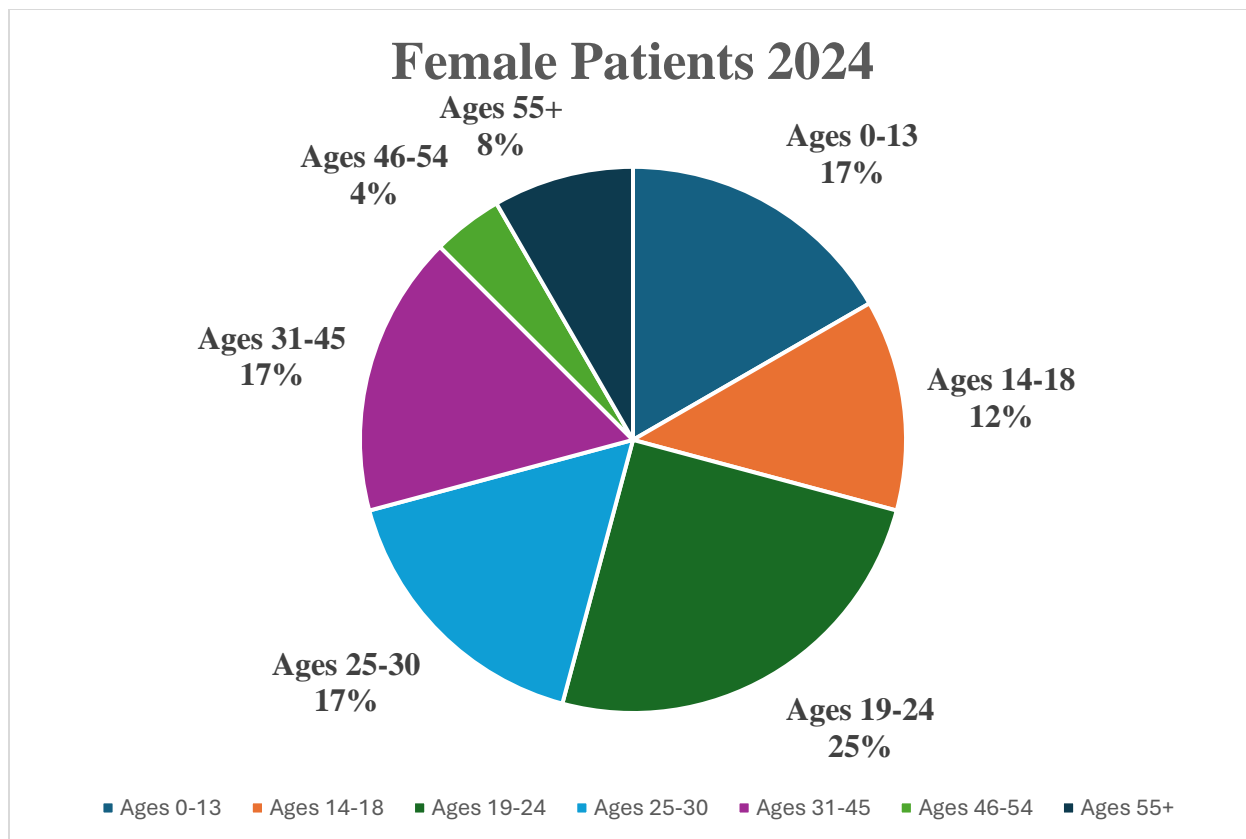
"Female victims of gun violence are increasing, and more recent years have been marked with higher rates of firearm injuries, particularly among younger women. (*Olufajo et al, 2021 pg. 1119*)." It was important to ensure that we separated male and female patients to see if gun violence trends were different between the male vs. female vs. transgender experience. "Due to the paucity of data little is known regarding demographics and temporal variations in firearm injuries among women (*Olufajo et al, 2021 pg. 1115*)." Research has traditionally centered around men, and for this reason it was important to look at the data separately. "Although many of the victims of gun violence are male, women form a sizable proportion of victims. With variations in the social dynamics between males and females also comes variations in the patterns of gun violence they experience (*Olufajo et al, 2021 pg. 1119*)."

Data Analysis and Outcomes

The 102 patients who were measured as a part of this case study were broken down by male and female. It is noteworthy that there is one transgender male in this case study between the ages of 31-45 that is accounted for in the male patient numbers. Both figures below are from dates of injury between January 1, 2024, and the end of October of 2024, and only contains patients who had an approved claim through the Crime Victims Compensation Program.

Male Patients 2024





The next step was to break down by each age category what happened in the following categories as found through the analysis of the data. All victims were shot under one of the following categories, however there are many reasons that patients come to Harborview with gunshot wounds not in these categories. It is important to note that these were the reasons for the patients in this case study only.

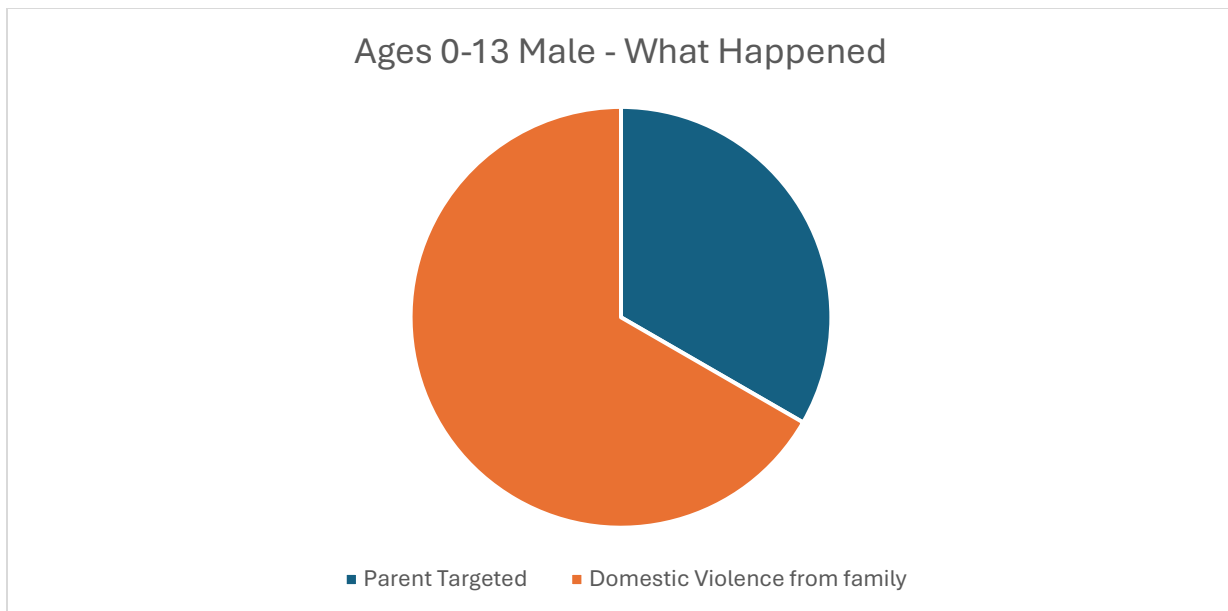
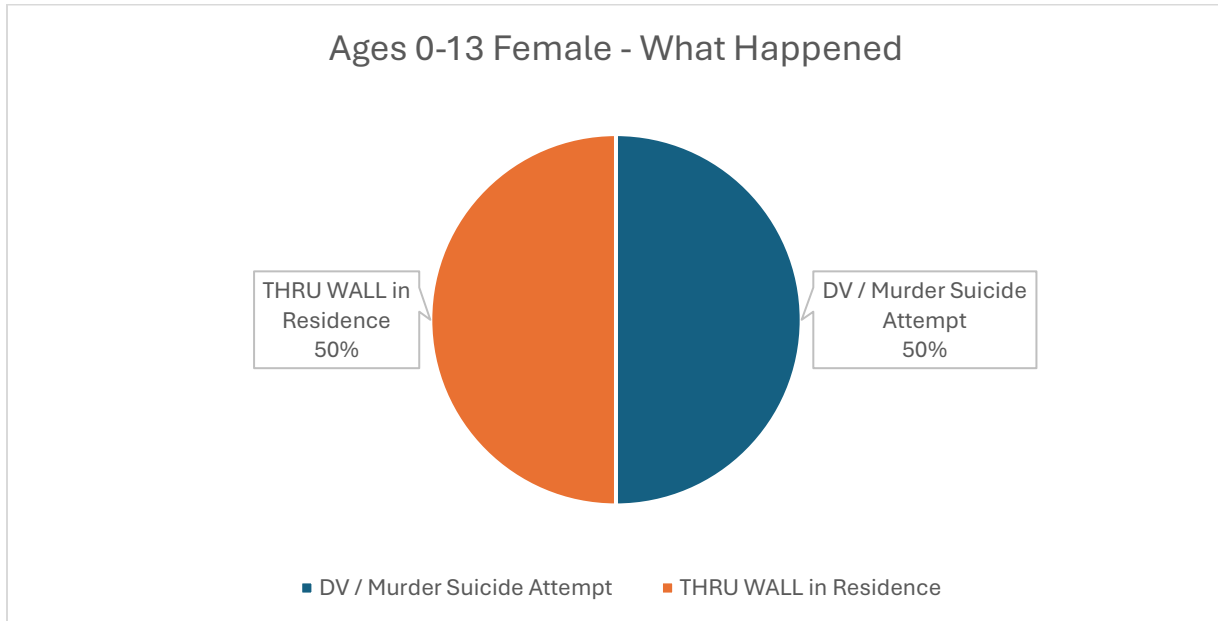
Categories of What Happened in this Case Study

- Shot in a vehicle, either sitting in their car, or while driving.
- Domestic Violence (abbreviated as DV) and/or an attempted murder/suicide.
- Shot in a public place such as walking to the store, standing outside of a night club or restaurant, or public event, in a parking lot or another public place such as a local park are some of the most common examples.
- Victim of an armed robbery that resulted in gunshot wound injuries.
- Victim was either at or near a high school.
- Involved in an altercation where the victim was cleared by law enforcement as not being in custody and eligible for crime victims' compensation.
- Patient was shot through a wall while inside of a residence.

Analysis and Prevention Strategies

The results of each age category based on age group, gender, and one of the above scenarios are as follows:

Ages 0-13 (7 out of 102 patients, 3 males and 2 females)

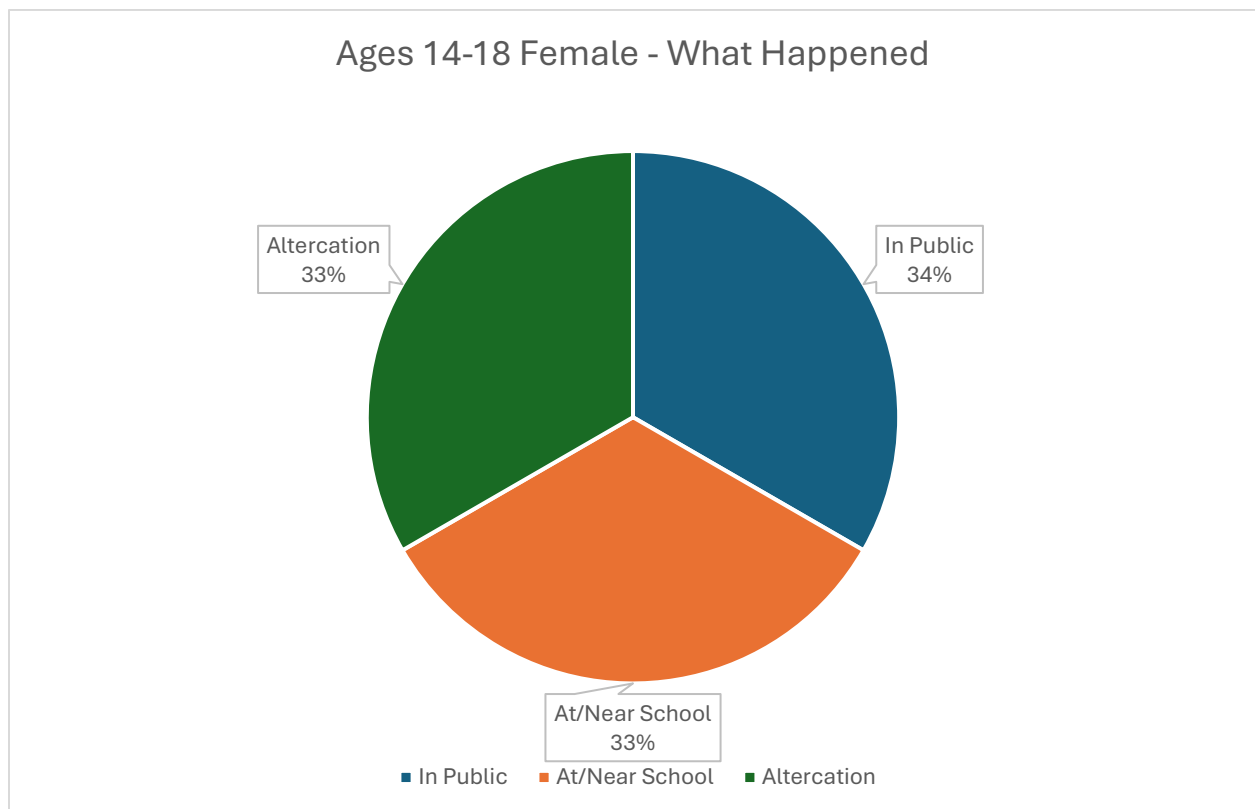


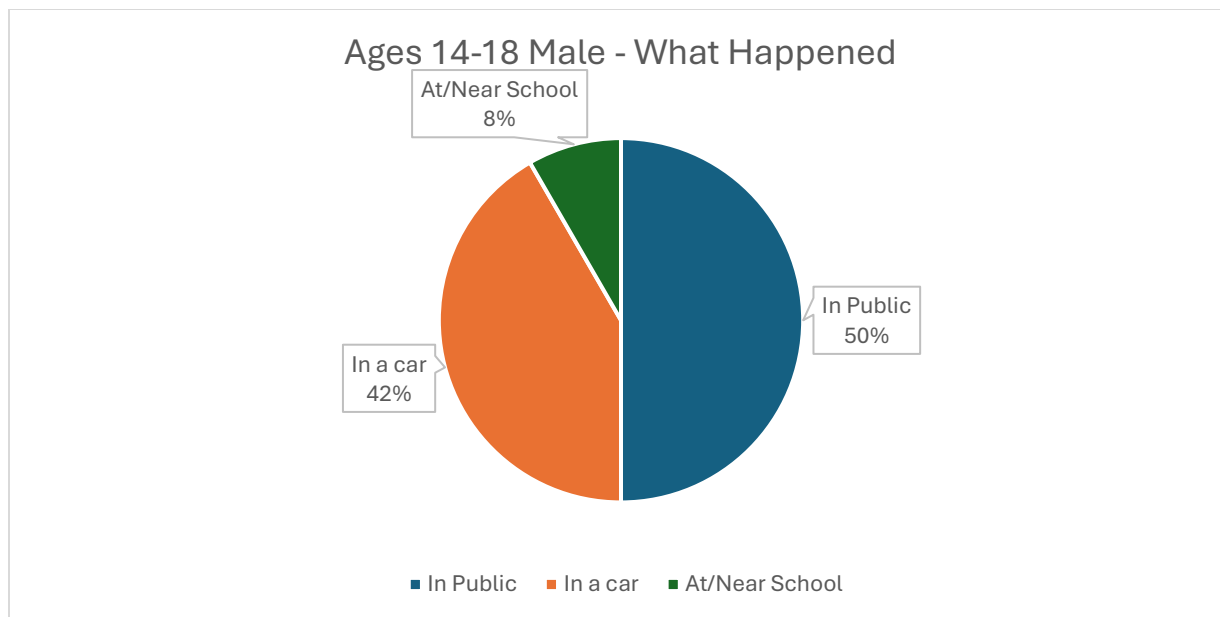
Analysis of ages 0-13 for Male and Female patients: It is noteworthy that children ages 0-13 in this data set were all victims of gun violence while being either victims of interfamily violence, or being shot through a wall, inside of a residence while asleep, or the victim of gun violence due to being in the vicinity of a parent who was the intended target. Prevention strategies around this

knowledge can be leveraged within healthcare settings to educate parents with children within this age group.

Prevention strategies for ages 0-13: The Violence Intervention and Prevention Program can begin to analyze possible questions that providers might ask parents to prevent gun violence, such as being aware of certain areas where bullets may fly through walls, or awareness in public as prevention strategies within King County. Interfamily violence is also an area that can be addressed more thoughtfully in this age category.

Ages 14-18 (15 out of 102 patients, 12 males and 3 females)



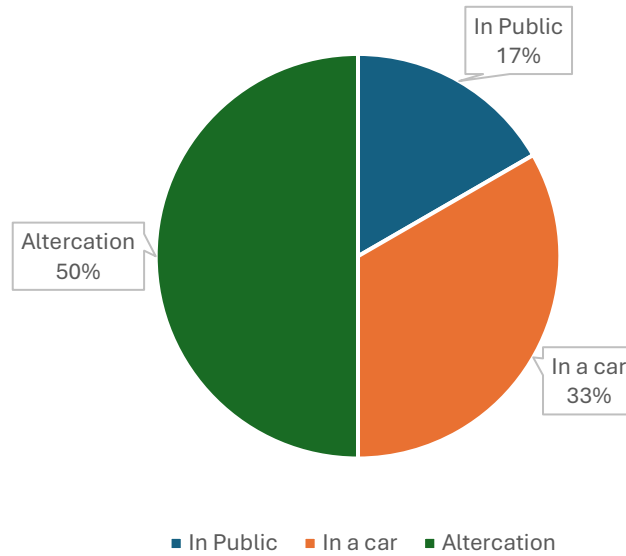


Analysis of ages 14-18 for Male and Female patients: It is noteworthy that children ages 14-18 is where we saw a huge increase in the number of male patients. The reasons for being shot in this age group changes in stark contrast to the 0-13 category where we see most males being shot either in a car or in public while out with friends. It is also noteworthy that we see no altercations among the male victims, but we do see evidence of altercations within the female population. More analysis is needed, potentially to see over time if there is a statistically significant difference between the genders when it comes to altercations, being the reason for becoming a gunshot wound victim.

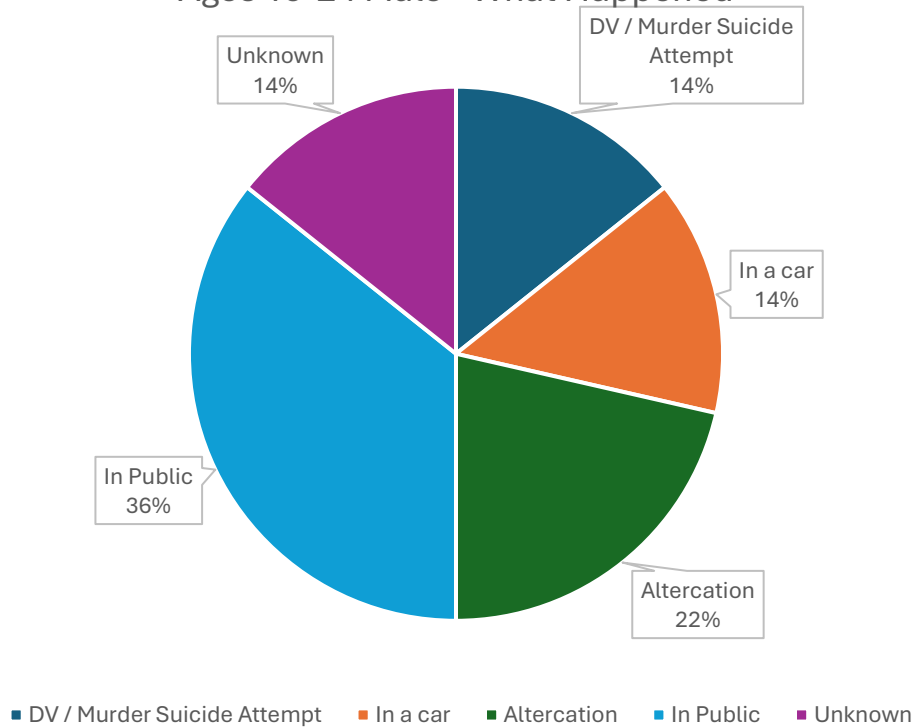
Prevention strategies for ages 14-18: The Violence Intervention and Prevention Program can begin to analyze possible questions that providers might ask parents to prevent gun violence, such as being aware of where their children go with friends and where they spend time in public or inside of vehicles.

Ages 19-24 (20 out of 102 patients, 14 males and 6 females)

Ages 19-24 Female - What Happened



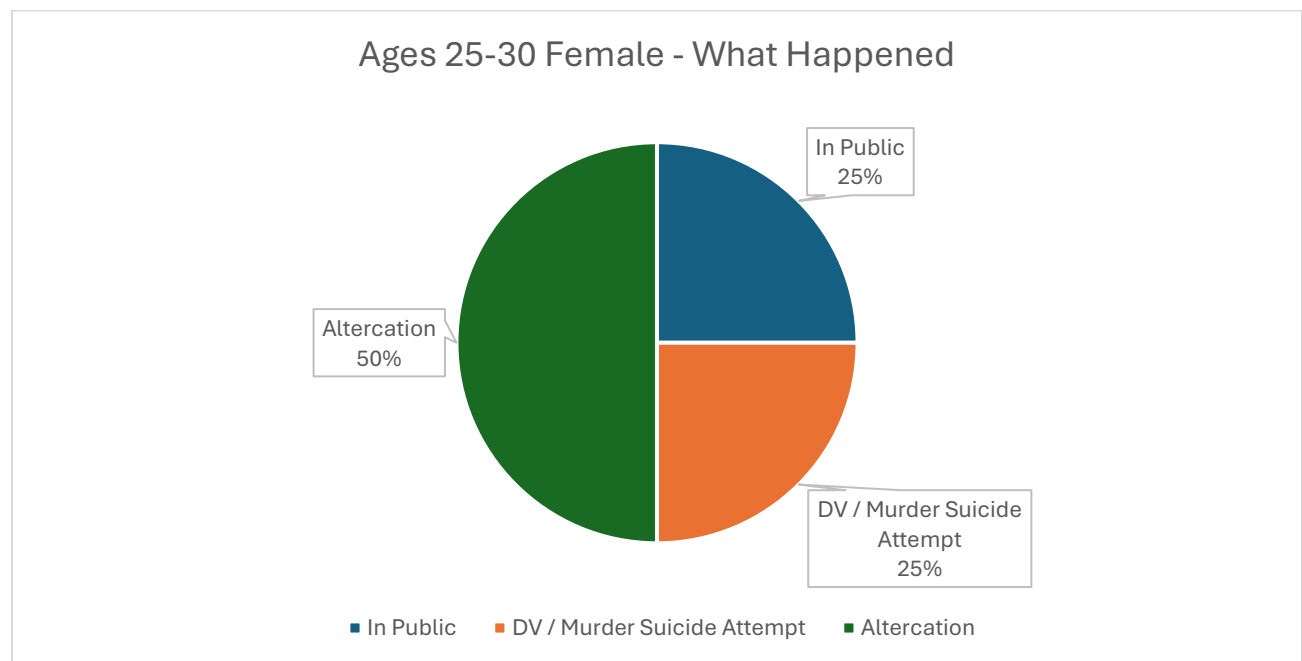
Ages 19-24 Male - What Happened

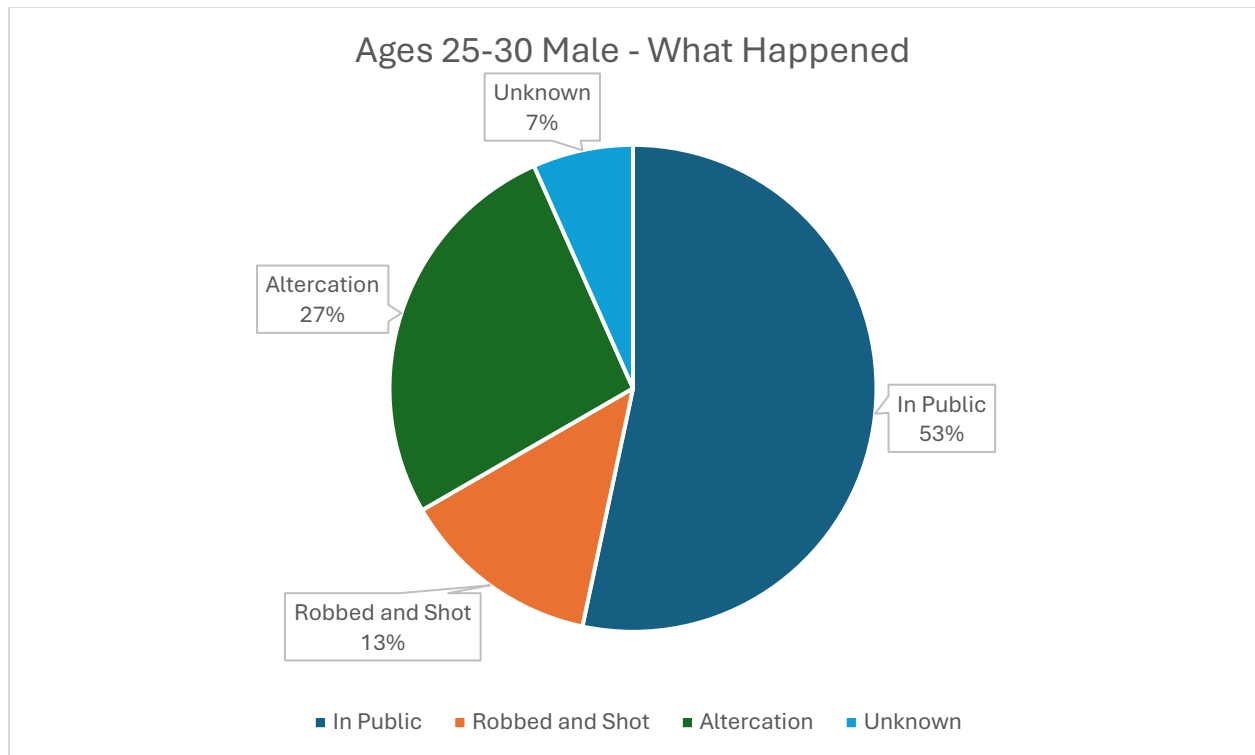


Analysis of ages 19-24 for Male and Female patients: It is noteworthy that young adults ages 19-24 is similar to the age group of 14-18 in that there is a lot of people injured inside of vehicles and/or in public places. We also see a rise in the data of victims being involved in an altercation. We see a huge rise in altercations in the male population, and surprisingly we see that in this age group, the female population was most likely injured due to an altercation in this age group. More research is needed to find out if there is a statistical significance, but this also goes to show that more research is needed to see how men and women experience gun violence differently.

Prevention strategies for ages 19-24: The Violence Intervention and Prevention Program can begin to analyze possible questions that providers might ask young adults in this age range to prevent gun violence, such as being aware of where they go with friends and understanding their risk in certain environments as a prevention strategy.

Ages 25-30 (19 out of 102 patients, 15 males, 4 females)



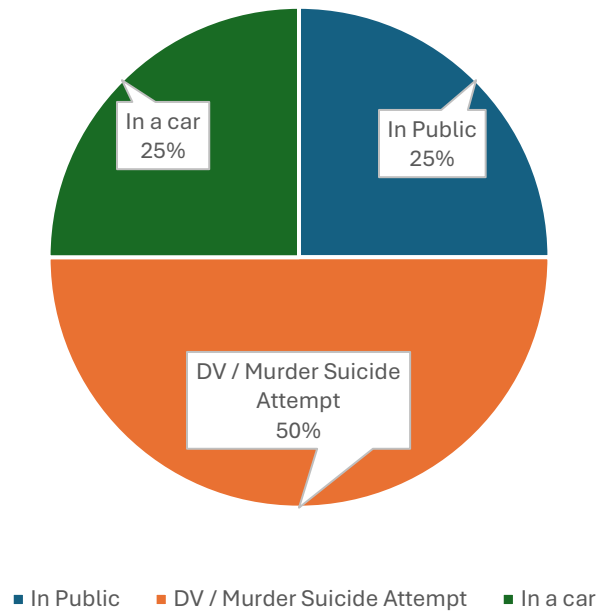


Analysis of ages 25-30 for Male and Female patients: It is noteworthy that young adults ages 25-30 is like the age group of 19-24 in that there is still showing a higher percentage of females being shot due to an altercation. We also see the male victims due to robbery and altercations rise in this age group.

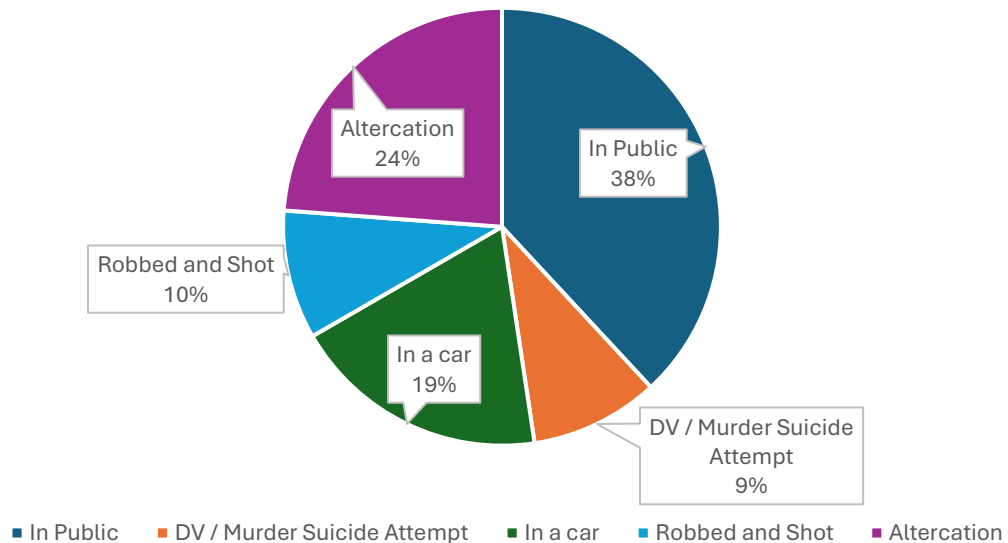
Prevention strategies for ages 25-30: The Violence Intervention and Prevention Program can begin to analyze possible questions that providers might ask young adults in this age range. It seems that both genders, but men especially in this age group are the most vulnerable in public places. This is where the geo-mapping of crimes in our county can show where the hotspots are for gun violence and the community led efforts can target these locations and attempt to strategically place community support in those areas.

Ages 31-45 (27 out of 102 patients, 23 males, 4 females)

Ages 31-45 Female - What Happened



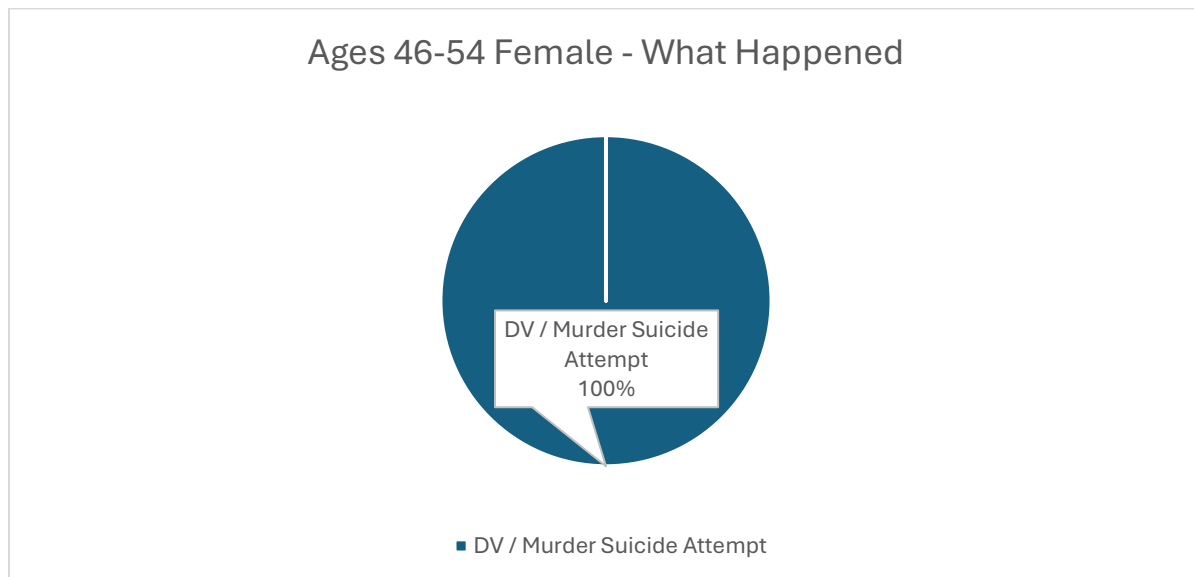
Ages 31-45 Male - What Happened

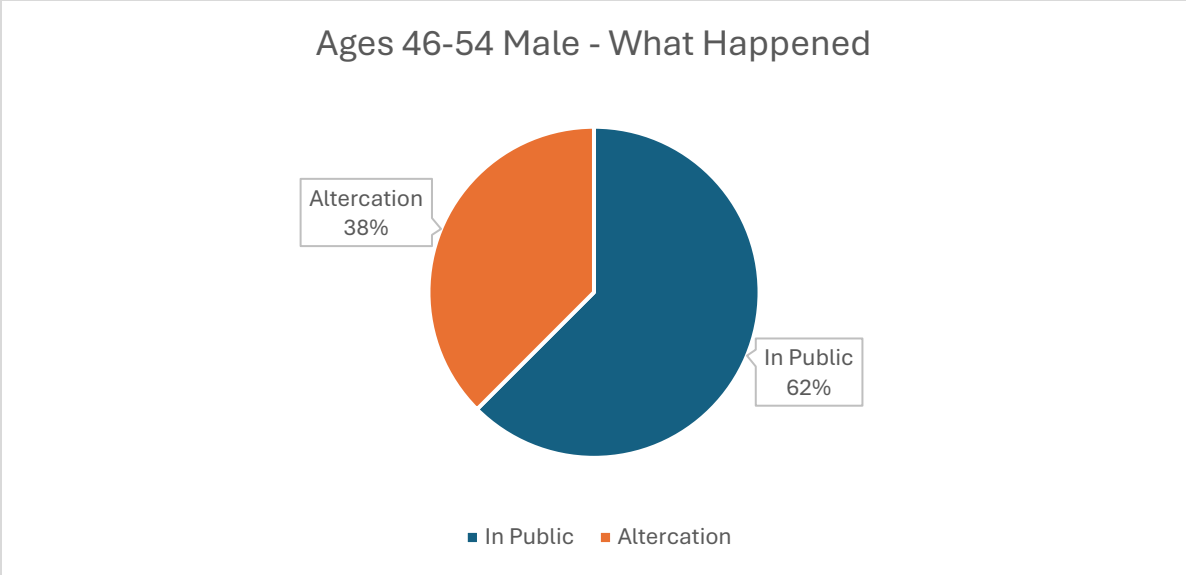


Analysis of ages 31-45 for Male and Female patients: It is noteworthy that we continue to see men being shot in public places or in vehicles as well as altercations becoming the primary reasons for men falling victim to gun violence. We also see that the female population has no instances of altercations, which is different than the younger group. It is also noteworthy that we see men being victims of robberies at gun point, but not women. These are some areas that may need further exploration in the future.

Prevention strategies for ages 31-45: The Violence Intervention and Prevention Program can begin to analyze possible questions that providers might ask men and women in this age range. It seems that men continue to be vulnerable in vehicles and public places. We also see the same trend with women along with being the victim of domestic violence. These discussions may be the root to having conversations with this age group about risk factors in public places.

Ages 46-54 (9 out of 102 patients, 8 males, 1 female)

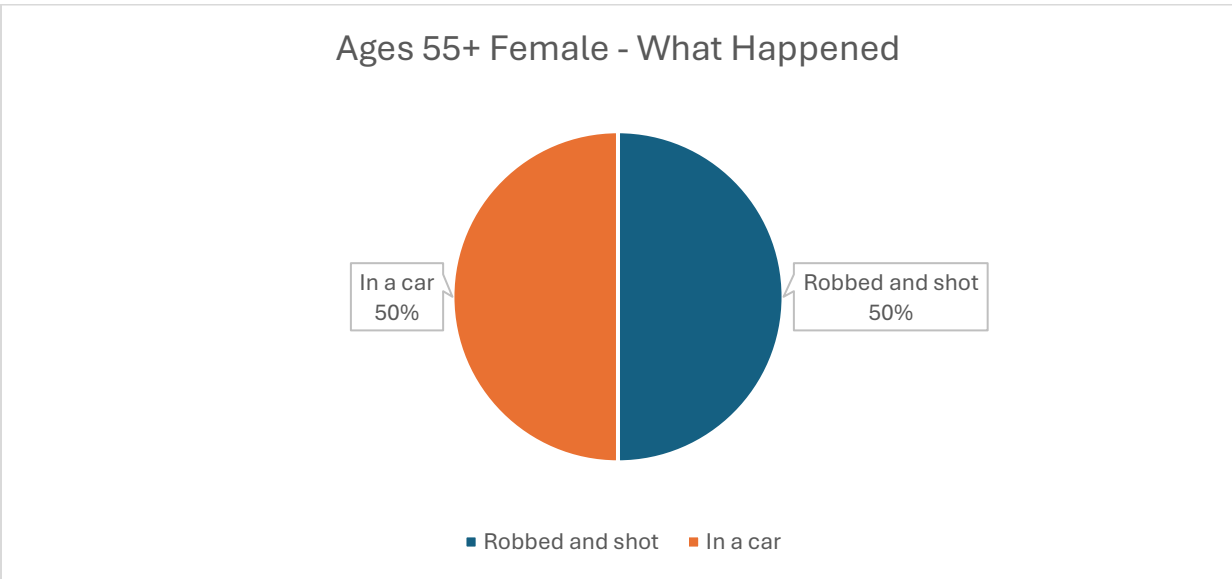


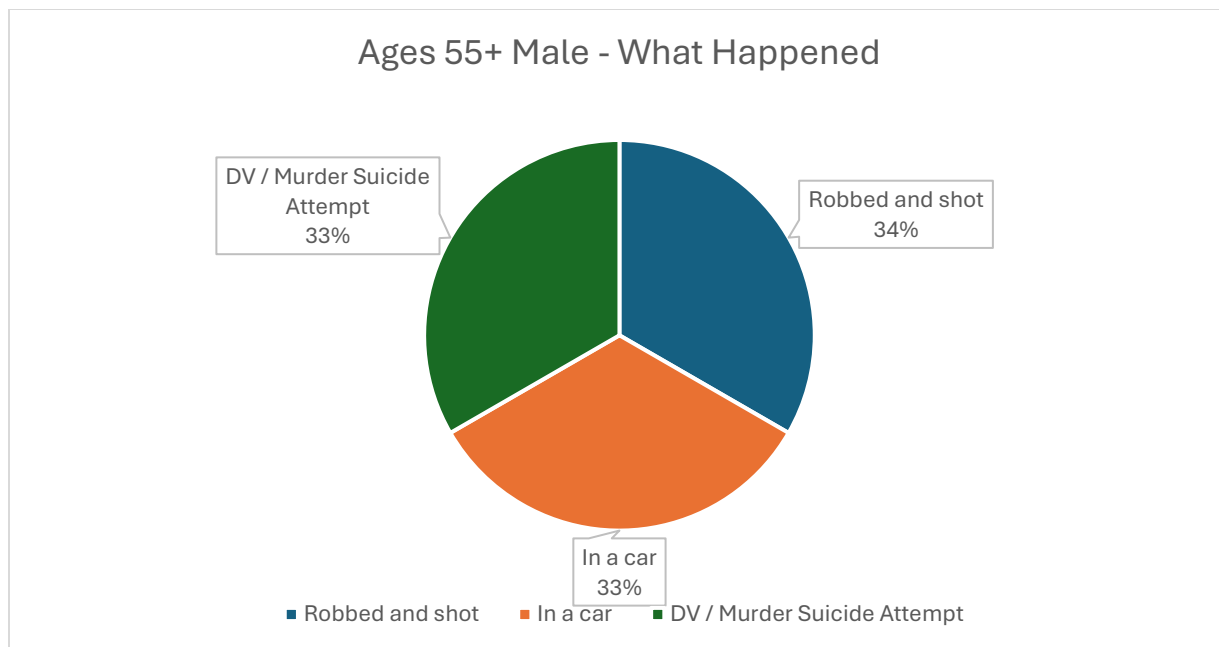


Analysis of ages 46-54 for Male and Female patients: In this age group we continue to see men most likely to be victims of gun violence in public places, and altercations where they were the victim as the only categories in this age group. For women we only saw one woman in this age group, and she was the victim of domestic violence.

Prevention strategies for ages 46-54: The Violence Intervention and Prevention Program can begin to analyze possible questions that providers might ask men and women in this age range in these categories.

Ages 55+ (5 out of 102 patients, 3 males, 2 females)





Analysis of ages 55+ for Male and Female patients: In this age group we see some evidence that this population is susceptible to falling victim to robberies at gun point. We also see that domestic violence is a reason for being injured as well as sitting in a vehicle.

Prevention strategies for ages 55+: The Violence Intervention and Prevention Program can begin to analyze possible questions that providers might ask men and women in this age range in these categories for education towards prevention efforts.

Violence Intervention and Prevention Team Working to the Prevention of Gun Violence

In conclusion, the Violence Intervention and Prevention Team at Harborview Medical Center is committed to both the intervention and prevention of gun violence. This case study was the first of many more to come, analyzing the victims of gun violence based on age, gender, and circumstances around how and where they were shot inspired by the Cardiff Model and other similar models of violence prevention. More research and larger samples are needed to continue this work in the future. The VIPP Team at Harborview Medical Center would like to thank the supporters of our Program who have made these efforts possible, both now and into the future.

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