



# Shootings in Ottawa

Crime Trends in Ottawa

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# EXECUTIVE SUMMARY

- This presentation includes charts and maps that illustrate various metrics related to shooting incidents in Ottawa. The analysis covers data from 2018 to 2023, revealing key trends in these events' frequency and geographical distribution. The data highlights patterns regarding when and where the incidents occur and their severity in terms of injuries.
- Certain areas, such as Hunt Club Park and Ledbury-Heron Gate, consistently report higher numbers of shooting incidents. These neighbourhoods experience multiple events with varying levels of injury, indicating potential hotspots for violence.
- The findings emphasize the importance of targeted law enforcement and community safety initiatives, particularly in neighbourhoods and wards with repeated incidents. These trends can assist policymakers and law enforcement agencies in strategizing intervention efforts and allocating resources effectively to reduce both the frequency and severity of shootings across Ottawa.



# INTRODUCTION

- This analysis is intended to guide discussions on resource allocation, preventive measures, and public safety initiatives in Ottawa. It will focus on mitigating risks in identified high-risk areas.
- The analysis focuses on data from 2018 to 2023, with limited data for 2023. We see shooting incidents distributed unevenly across Ottawa's Divisions and Wards.
- We begin by exploring the critical insights from the data, including monthly shooting patterns, the most affected neighbourhoods and wards, and a closer look at the incidents by year. Through this analysis, we can better understand Ottawa's gun violence trends and stimulate proactive solutions for the future.
- Now, let's dive into the data and the story it tells.





# METHODOLOGY

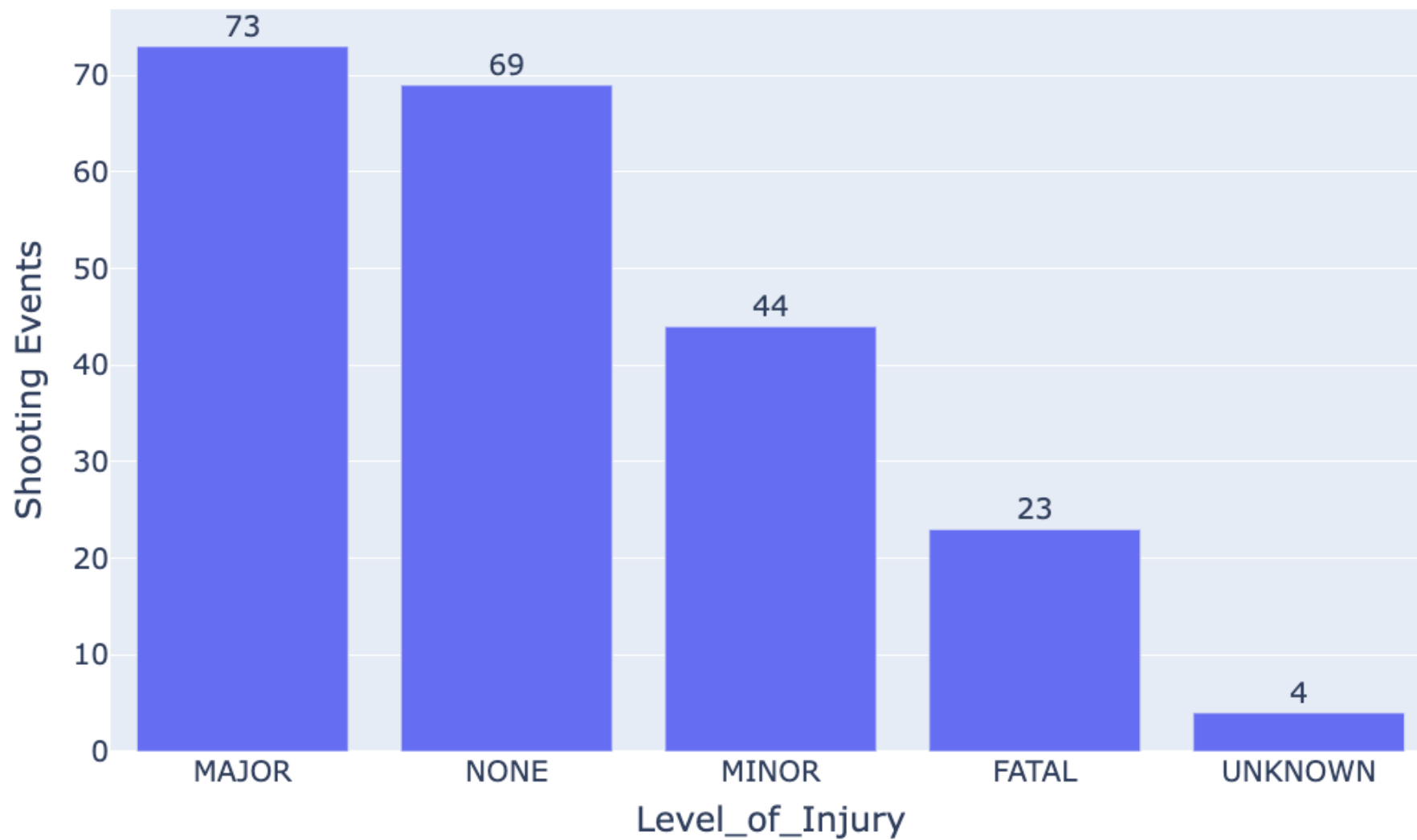
- The original CSV dataset used contains 413 records of shooting occurrences from 2018 – 2023.  
[https://data.ottawapolice.ca/datasets/10c469165cf142198cf80f0bdf021393\\_0/explore?showTable=true](https://data.ottawapolice.ca/datasets/10c469165cf142198cf80f0bdf021393_0/explore?showTable=true)
- The CSV dataset was loaded into a MySQL database and cleaned with SQL Data Manipulation and Definition Statements. A Python script queried the database view, and the data was visualized.
- A statistical web application was created using Python's Dash Plotly framework to visualize overall, yearly, and geolocational trends.
- 406 Records were successfully loaded into MySQL. 213 records had valid “Level of Injury” data (Not Null).
- These 213 records were the focus of this report.



# RESULTS

- The most significant proportion of shootings (44.6%) occurred in the evening, followed by night (31%), afternoon (18.8%), and morning (5.6%).
- Ledbury-Heron Gate-Ridgemont-Elmwood and Byward Market are notable for having more shooting events than other neighbourhoods. Injuries of all levels were reported across multiple areas, with "none" and "major" being prevalent.
- Ward 10, Gloucester-Southgate, has the highest shooting incidents, followed by Ward 12 (Rideau-Vanier). Most other wards have relatively fewer incidents.
- The East Division sees the highest number of shootings.
- “Major” injuries are the most frequent, but many events result in no injury.

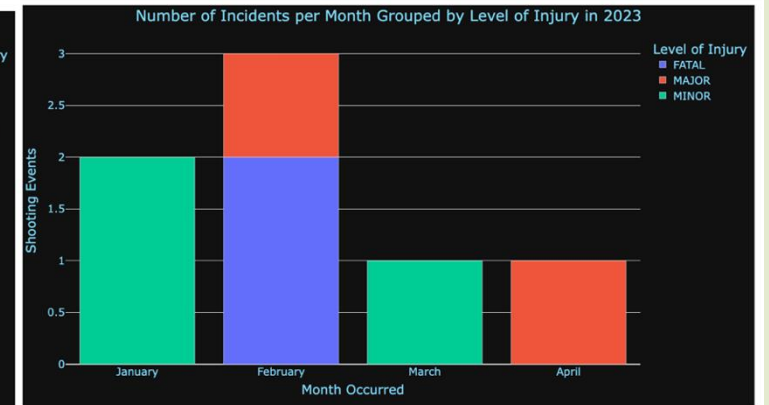
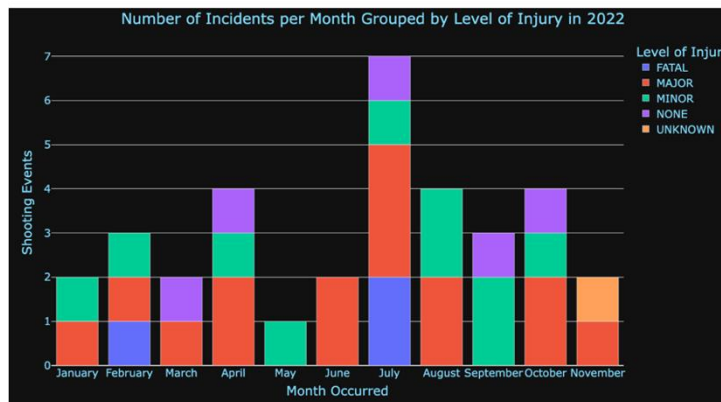
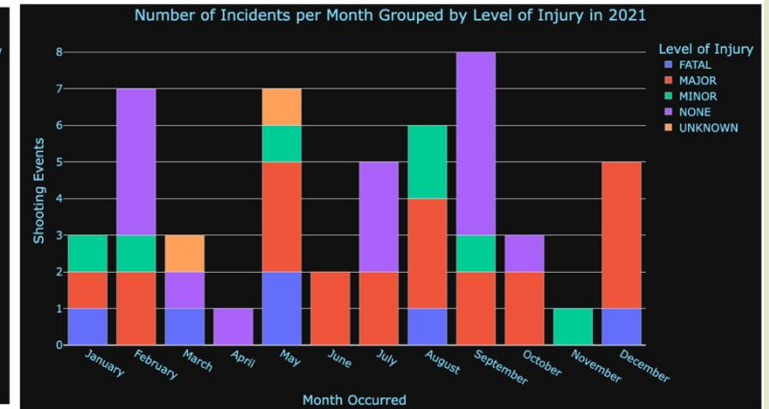
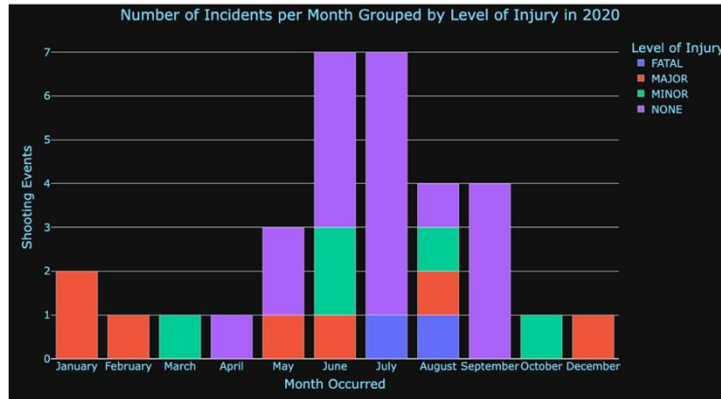
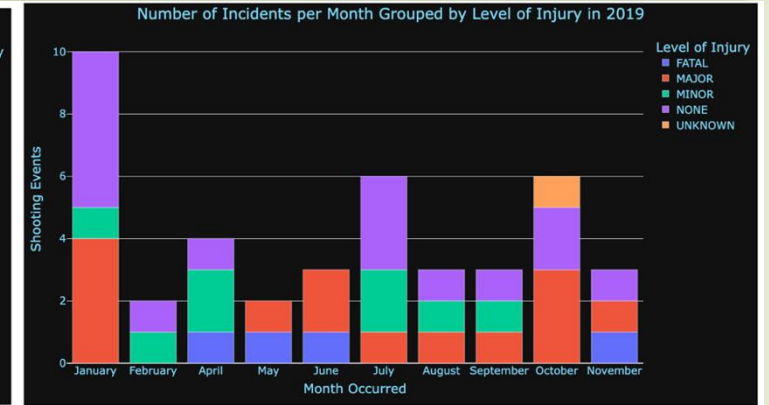
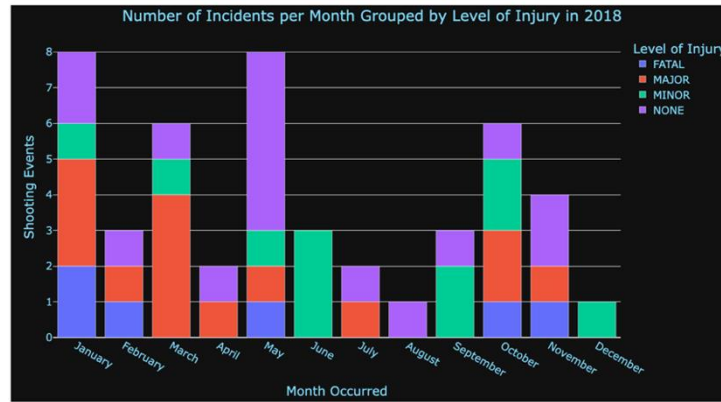
## Shooting Events by Level of Injury





# Yearly Incidents per month

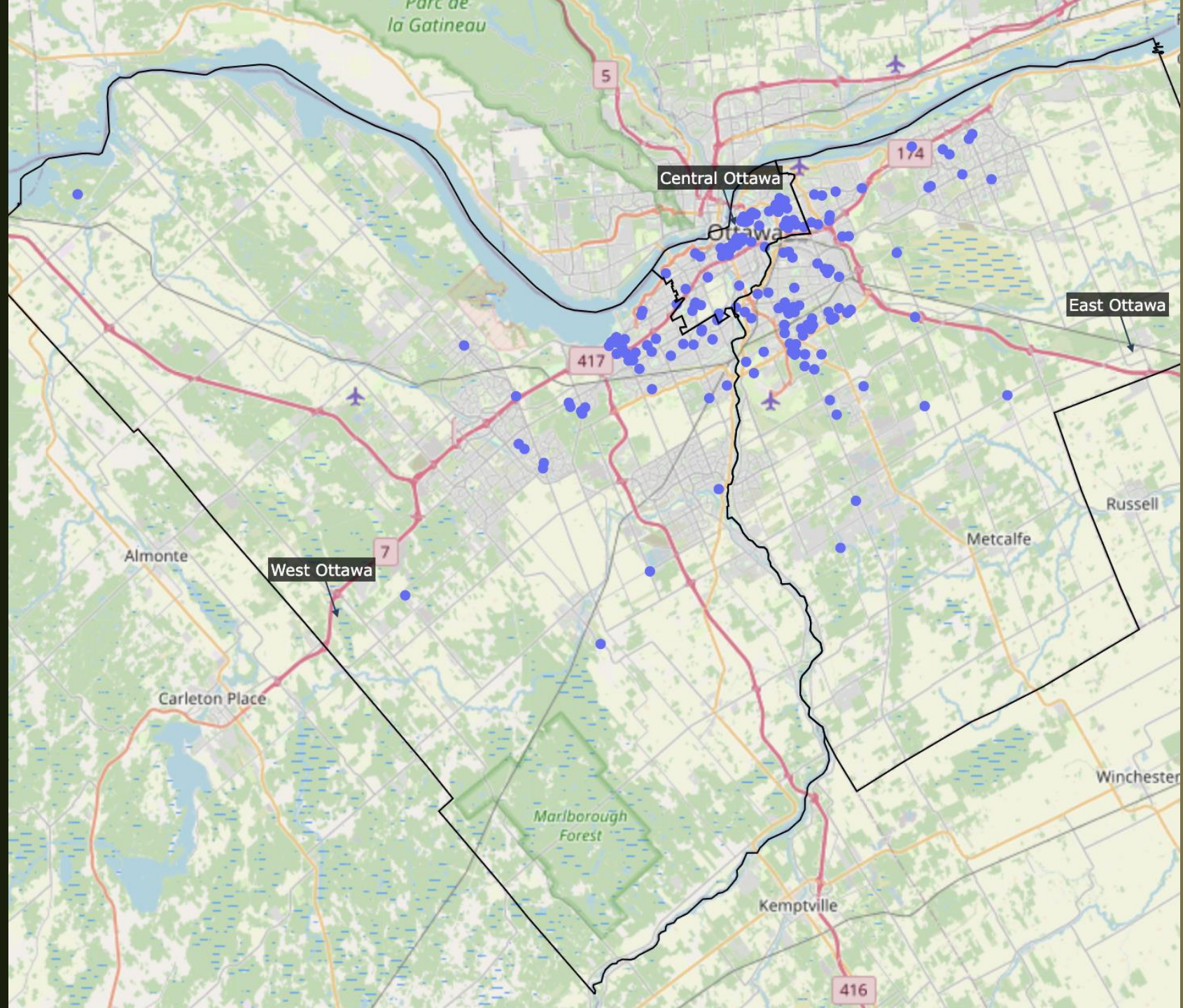
- **Summer Trends:** A recurring pattern across all years is that **July** tends to experience more shooting incidents. These peaks are often accompanied by "**fatal**" or "**major**" injuries, indicating that mid-summer might be more dangerous.
- **Year-End Spike: October to November** often shows an uptick in incidents, especially with **major** injuries in 2019 and 2021.
- **Preventive Measures:** The high occurrence of **major** injuries in some years suggests that a focus on reducing the severity of shootings (better medical response, policing) could have a significant impact on public safety.



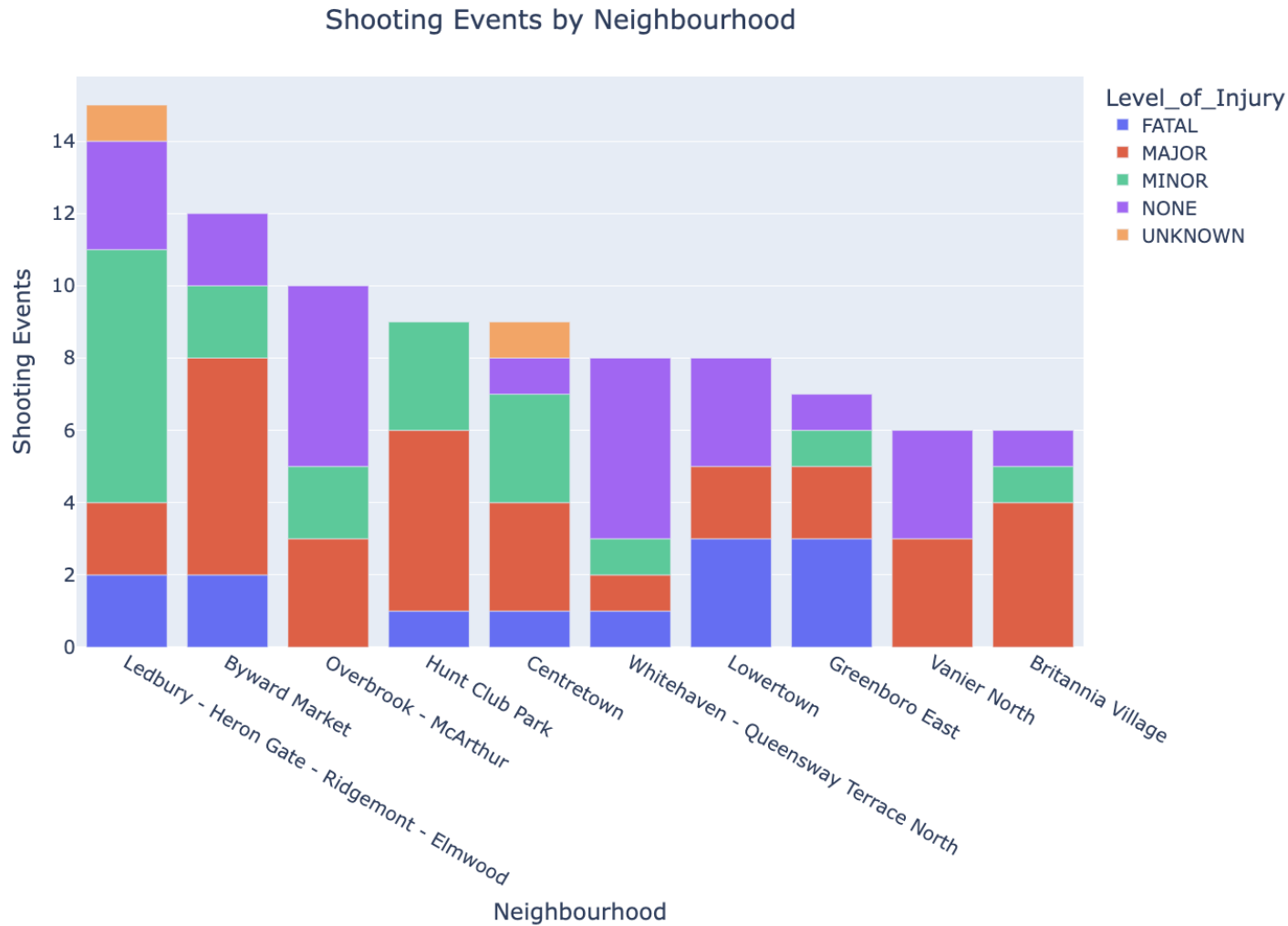


# Shootings by Division

- Incidents are concentrated towards the center of the city as the population tends to increase towards the city center.
- The majority of events occurred in the East Division (91), followed by Central (68) and West (54).
- Interestingly, despite appearing to cover a smaller geographical area, the East Division accounts for more incidents than the West.



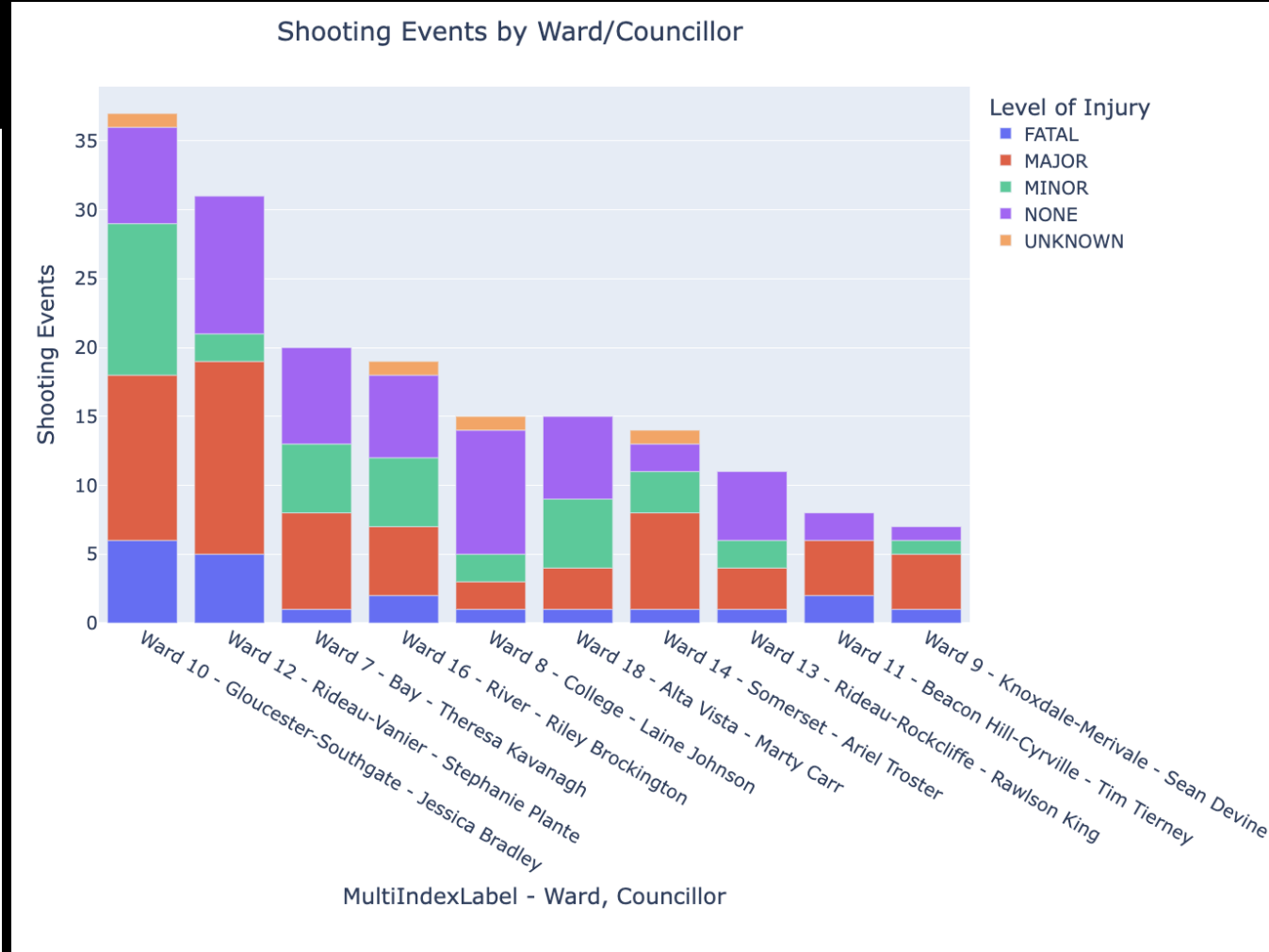
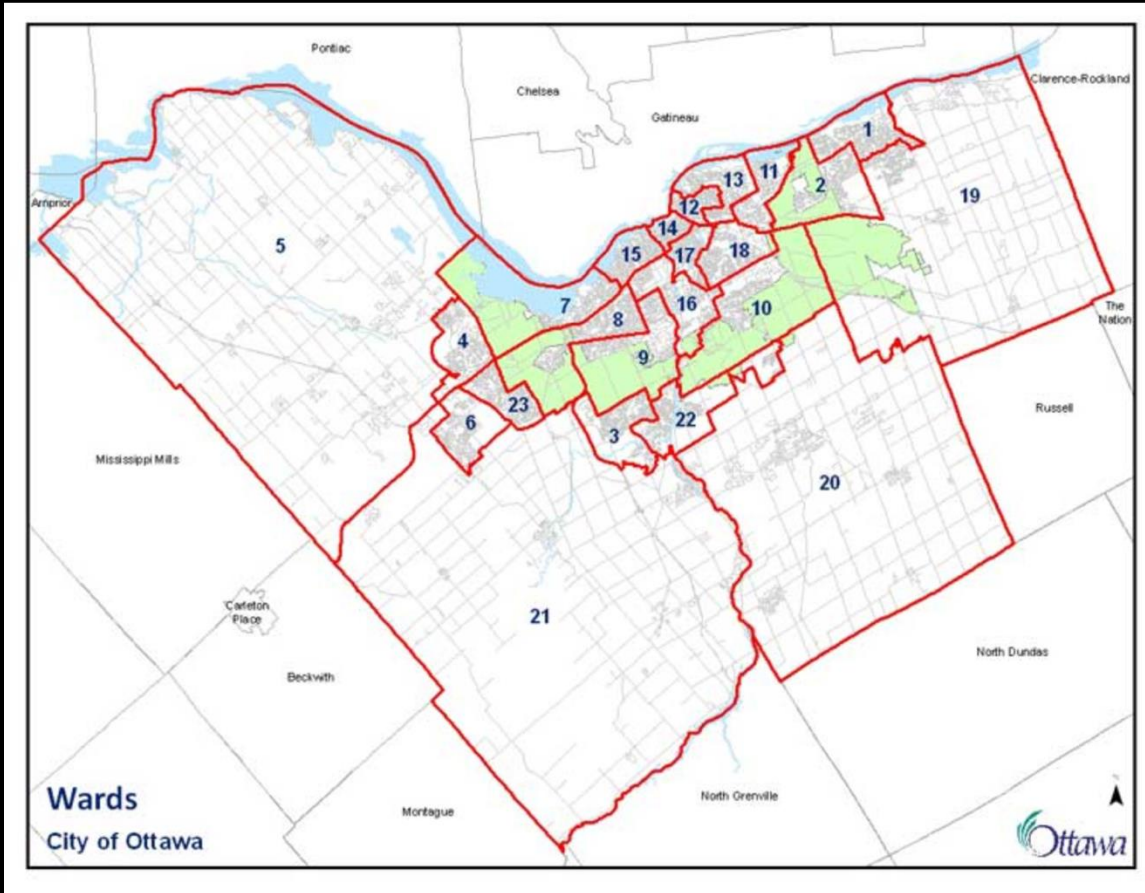
# Shootings By Neighbourhood



- Of the Top ten neighbourhoods with the most shootings, three are in the East, two are in the West, and five are in Central Ottawa.
- Ledbury-Heron Gate-Ridgemont-Elmwood(East) and Byward Market(Central) are notable for having more shooting events than other neighbourhoods.
- Britannia Village and Whitehaven – Queensway Terrace North are the two West neighbourhoods among the top ten neighbourhoods with the most shooting events.



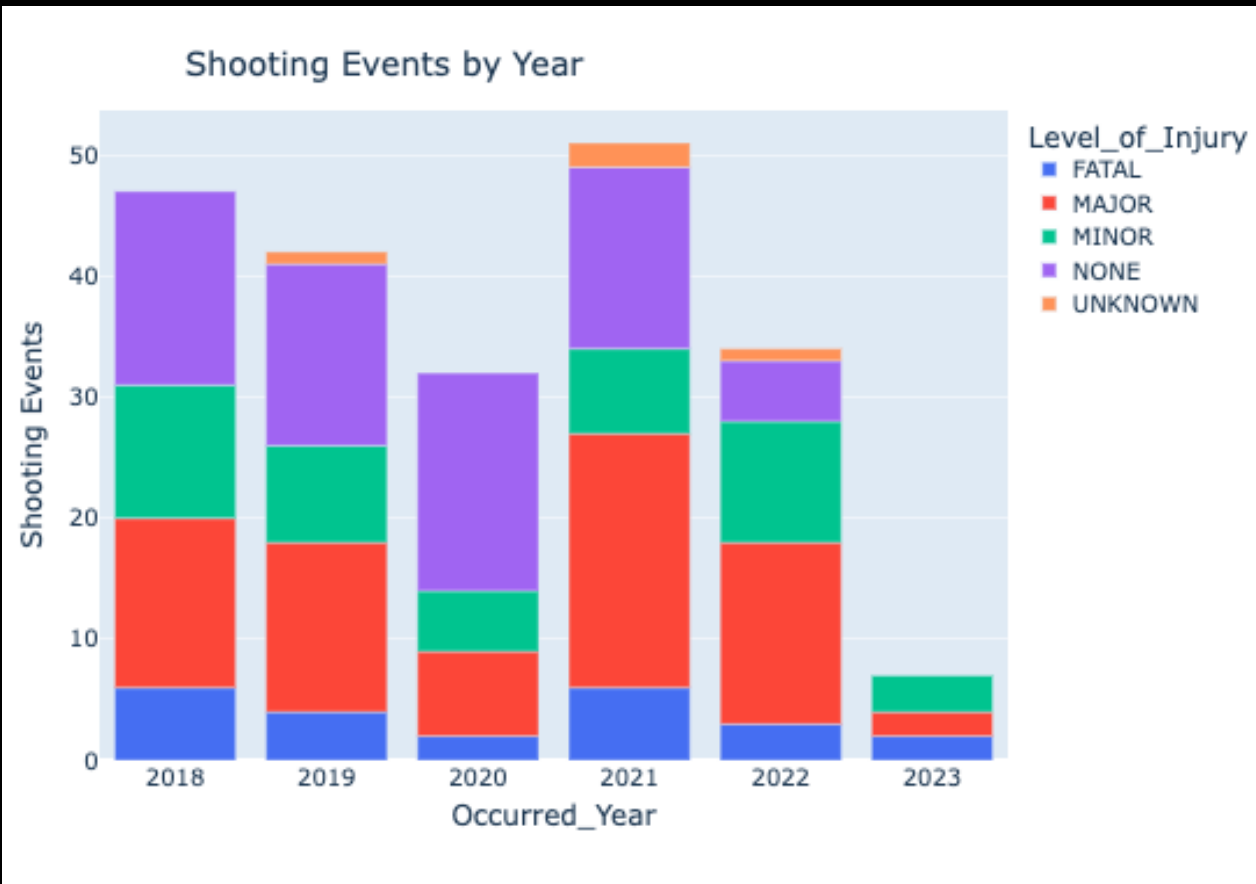
# Incidents by Ward/Councillor



(McKay, "Ottawa Seeking Feedback on Ward Boundary Review")

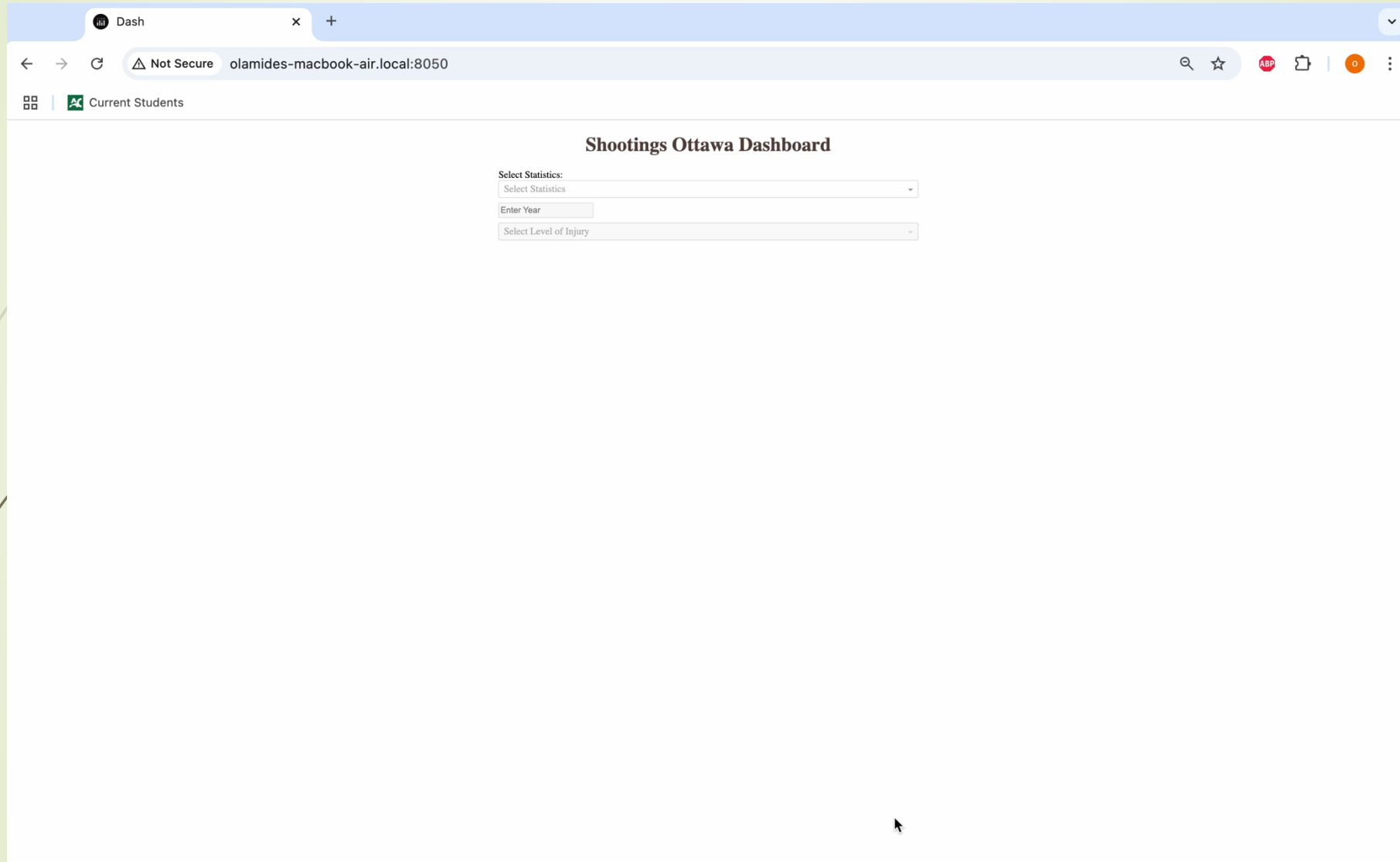
- Three of the top 10 neighbourhoods where shootings occurred are in Ward 10 - EAST.  
**(Ledbury-Heron Gate-Ridgemont-Elmwood, Hunt Club Park, and Greenboro East)**
- Three of the top 10 neighbourhoods where shootings occurred are in Ward 12 - CENTRAL.  
**(Byward Market, Lowertown, and Vanier North)**
- Two of the top 10 neighbourhoods where shootings occurred are in Ward 7 - WEST.  
**(Whitehaven – Queensway Terrace North and Britannia Village)**

# Overall Trends and Patterns



- **2018 and 2019** have similar total incidents, with **2018** slightly higher.
- A notable dip in **2020** can be correlated with public restrictions and societal changes during the COVID-19 pandemic, which will undoubtedly have impacted crime patterns.
- The highest shooting incidents occurred in **2021**, confirming that the year experienced a significant increase compared to previous years. This correlates with the partial lifting of COVID-19 restrictions, which saw people return to somewhat normal daily activities.
- After the **2021** peak, the number of incidents in **2022** considerably reduced, though still higher than in **2020**. However, a relatively balanced spread of **fatal**, **major**, and **minor** injuries indicates a diverse range of severity in outcomes.

# Ottawa Shootings Dashboard



The screenshot shows a web browser window with a single tab titled "Dash". The address bar displays "Not Secure" and the URL "olamides-macbook-air.local:8050". The browser's toolbar includes back, forward, and refresh buttons, as well as search, star, and extension icons. A sidebar on the left contains a "Current Students" link. The main content area is titled "Shootings Ottawa Dashboard" and features three input fields: a dropdown menu for "Select Statistics", a text input for "Enter Year", and another dropdown menu for "Select Level of Injury".

**Shootings Ottawa Dashboard**

Select Statistics:  
Select Statistics

Enter Year

Select Level of Injury

# DISCUSSIONS

- **Geographical Distribution of Shootings:** The East division experiences the most shootings, followed by Central and West. Certain socioeconomic factors, such as income, education, employment status, and others, could drive these differences in regional crime patterns.
- **Ward Representation and Response:** The disparity in shooting events across wards could reflect how various local councils address crime prevention. For example, certain wards may prioritize safety differently.
- **Temporal Trends:** The highest number of shootings occurred in 2021. Pandemic-related disruptions in 2020 and subsequent societal shifts thereafter are likely to have had an influence on crime rates in Ottawa. Ottawa interim police chief Steve Bell pointed to changing societal trends and a lack of police staffing as crucial reasons behind the increase. Ottawa Police Services Board (OPSB) "amended the 2022 budget and did not anticipate the need for an increase in police resources[;] it actually anticipated a decrease," said Bell (Kurys).
- **Injury Severity and Impact:** Many incidents resulted in major or no injuries. This could be reflective of varying motives or targets in the shootings, such as intimidation versus intent to cause harm.



# OVERALL FINDINGS & IMPLICATIONS

- **Shooting Trends and Crime Rates:** The data suggests that the crime rate, including shootings, has fluctuated over the years, with a peak in 2021. Although there was a decline in 2022 and 2023 (incomplete data), Ottawa still faces challenges, as confirmed by broader crime data showing a 25% rise in overall criminal activity compared to pre-pandemic levels (Kurys). In particular, violent crime, including shootings, increased by ~ 8% in 2021, indicating that societal factors such as economic distress, the pandemic, and police staffing shortages may be contributing to this rise in shootings (Ottawa Police Service).
- **Injury Levels:** The fact that many shootings did not result in injuries or only caused minor injuries raises questions about the nature of these incidents. It could suggest that not all shootings are intended to kill or maim and may instead be related to gang violence, warnings, or disputes. However, there were still significant incidents causing "major" injuries and fatalities, signalling the dangerous and unpredictable nature of these events.





# CONCLUSION



- The Ottawa shooting data offers insight into both the geographical and temporal patterns of gun violence in the city. With most incidents concentrated in specific divisions and neighbourhoods, there is a clear need for policing and targeted socioeconomic interventions.
- Rising crime rates overall, including a notable increase in gun violence incidents since the pandemic, underscore the urgency for effective policing and community engagement strategies.
- Collaboration between law enforcement, local governments, and communities is essential to address both immediate safety concerns and the root causes of gun violence.



# References

Kurys, Chris. "Ottawa Crime Rates Up 25 Per Cent in 2022 Compared to Pre-Pandemic Levels." *Ottawa City News*, 26 July 2022, [ottawa.citynews.ca/2022/07/26/ottawa-crime-rates-up-25-per-cent-in-2022-compared-to-pre-pandemic-levels-5623395/](https://ottawa.citynews.ca/2022/07/26/ottawa-crime-rates-up-25-per-cent-in-2022-compared-to-pre-pandemic-levels-5623395/). Accessed 15 Oct. 2024.

McKay, Lesley. "Ottawa Seeking Feedback on Ward Boundary Review." *Stittsville Central*, 22 Aug. 2020, [stittvillecentral.ca/ottawa-seeking-feedback-on-ward-boundary-review](https://stittvillecentral.ca/ottawa-seeking-feedback-on-ward-boundary-review). Accessed 15 Oct. 2024.

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