### **London Homicide - My Approach**

**Category**: London Crimes  
**Tools Used**: Tableau, SQL, Google Sheets

**Objective:**

This project analyses homicide trends in London to uncover patterns related to location, timing, and victim demographics, providing actionable insights to support crime prevention strategies, policy-making, and law enforcement efforts. The goal is to identify hotspots, offence types, and victim profiles to inform targeted interventions and enhance public safety.

**Key Questions Answered:**

* What are the trends in homicides over time (yearly, monthly, and seasonal fluctuations)?
* Which boroughs experience the highest number of homicides?
* What are the demographic characteristics of homicide victims (age, gender, etc.)?
* What offence types are most common (e.g., murder, manslaughter)?
* How do weapon types and domestic abuse play into homicide cases?
* What is the case resolution rate (solved vs. unsolved)?

**Data Source:**

**Dataset**: Metropolitan Police Service (MPS) Homicide Data (2003 - 2023)  
**Source**: London Datastore

**Columns**:

* **Transaction ID**: Unique identifier for each homicide case.
* **Offence Type**: Category of the homicide (e.g., Murder, Manslaughter).
* **Date of Incident**: Date the homicide occurred.
* **Victim Gender**: Gender of the victim.
* **Victim Age**: Age of the victim.
* **Location**: Borough/area where the homicide took place.

**Approach:**

**Data Cleaning:** The homicide data was imported into Google Sheets for initial quality checks and cleaning.  
Key steps included:

* **Standardising Column Formats**: Ensured consistency in date, location, and victim details for ease of analysis.
* **Removing Duplicates**: Checked for duplicate records and cleaned the dataset.
* **Date Standardisation**: Created a month-year field for trend analysis over time.
* **Handling Missing Values**: Flagged missing or incomplete entries in Google Sheets and excluded them from analysis.

**Data Analysis:** SQL was used for advanced data exploration and aggregation.  
Key analyses included:

* **Trends Over Time**: Aggregated data by year and month to identify fluctuations and seasonal trends.
* **Hotspot Analysis**: Grouped data by borough to determine areas with high homicide rates.
* **Victim Demographics**: Examined the gender, age, and offence types to understand victim profiles.
* **Offence Types & Weapon Types**: Investigated common offence types and weapons used in homicides.
* **Domestic Abuse**: Analysed whether domestic abuse was a factor in the homicide cases.
* **Case Resolution**: Examined the case status (solved vs. unsolved).

**Data Visualisations:**Interactive visualisations in Tableau were created for detailed trend exploration.  
Key charts included:

* **Line Chart**: Displaying the number of homicide victims over time.
* **Bar Chart**: Breakdown of homicides by offence type (murder, manslaughter).
* **Stacked Bar Chart**: Breakdown of homicides by victim gender and case resolution status.
* **Pie Chart**: Proportion of homicides related to domestic abuse.
* **Geospatial Map**: Heatmap showing homicide hotspots by borough.

Interactive Features

* Filters for boroughs, victim demographics, time periods, and offence types.
* Hover-over tooltips providing detailed insights such as the number of victims and borough-specific trends.
* Dynamic charts that respond to user-applied filters, enabling deeper analysis of specific timeframes or demographic groups.

**Key Findings:**

Trends Over Time

* Homicide victims decreased from 216 in 2003 to 109 in 2023, with fluctuations (e.g., spikes in 2017 and 2019).
* Homicides occur year-round, with a notable increase in summer months (June and July) in recent years.

Offence Type

* 94% of homicides are categorized as murder, with manslaughter and infanticide accounting for the rest.

Weapon Type

* Over half (52%) of homicides involved knives or sharp implements, highlighting a significant issue with knife crime.

Domestic Abuse

* 17% of homicides were related to domestic abuse, underlining the need for targeted interventions in this area.

Victim Demographics

* **Gender**: 76% of homicide victims were male.
* **Age**: The largest victim group was aged 25-35 years (22%), with a more even distribution across other age groups.

Geographic Hotspots

* Boroughs like **Barking and Dagenham**, **Croydon**, and **Bromley** consistently reported higher homicide rates, indicating these areas are hotspots for violent crime.

Case Status

* 94% of homicide cases were solved, with 6% remaining unsolved.

**Recommendations:**

Public Awareness Campaigns

* Focus on promoting knife crime prevention, de-escalation strategies, and raising awareness about domestic abuse, particularly in high-risk areas.

Targeted Interventions

* Direct efforts towards young males (18-35) who represent a large portion of victims.
* Develop mental health support programs, community outreach, and violence reduction strategies.

Geographic Focus

* Increase law enforcement presence and community outreach in hotspots like **Barking and Dagenham**, **Croydon**, and **Bromley** to deter violent crime.

Domestic Abuse Support

* Strengthen domestic violence prevention by providing more resources for victims, including emergency shelters and legal support.

Improved Case Resolution

* Dedicate more resources to solving cold cases, leveraging advanced forensic technologies and inter-agency collaboration to improve resolution rates.

**Conclusion:**

This analysis highlights critical homicide trends in London, offering valuable insights into seasonal fluctuations, demographic patterns, and geographic hotspots. By implementing targeted public awareness campaigns, improving case resolution, and focusing on high-risk areas and demographics, these recommendations can help reduce homicides and increase public safety in London.