Project 3

Understanding Opioid Overdoses in Tempe, AZ

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Agenda

- The problem we selected and data we analyzed

- Our approach to analysis

- Dashboard

- Potential uses

- Additional questions to consider

Our Topic of Analysis

The Issue:

- **The opioid epidemic has a significant impact on paramedics, emergency medical technicians (EMTS), and emergency departments (Tempe Fire Medical Rescue Department, n.d.)**

- **130 people dying every day of opioid overdose (Tempe Fire Medical Rescue Department, n.d.)**

- **11.8 million Americans over the age of 12, or 4.4% of the total population misuses opioids (Tempe Fire Medical Rescue Department, n.d.)**

- **The city of Tempe saw an increase of 1.2% for 5 years and the amount of Narcan needed to reverse overdoses has nearly doubled.**

The Data:

- **This dataset is created and maintained by the City of Tempe**

- **Each record contains data about a patient linked to an EMS call in which the incident was deemed "opioid abuse probable."**

- **By tracking the number of opioid abuse probable calls, we identified trends and patterns in opioid use.**

Our Approach

We created our SQLite database, created a table, and then uploaded our data into the table.

We then built an API using Flask to serve up the data. From there, we used Javascript & D3 to interact with the data and create our visualization.

Our HTML file displayed our visualizations and we utilized the Tailwind library to change the font on our web page.

Possible Uses

1) Assist emergency services in staffing and preparedness

2) Aid the City of Tempe - more accurately asses who needs the most help
   - City policy, availability of resources, preventative programs

3) Provide insights for different entities - VA, Arizona State University, other public schools

Additional Questions

Topics that require further data analysis

What is causing the Thursday Spike in House-less Tempe residents making Opioid-Probable Emergency Medical Services Calls?

How can we utilize the historical data to build a predictive tool for the City of Tempe?

How are opioids infiltrating the ages groups ranging from 15 to 24?

Thank you

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References

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