Zosya Trimbacher

Data Analyst

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About me

Hi, I'm Zosya Trimbacher — a data-driven problem solver with a background in operations and executive support in fast-paced tech environments.

After nearly five years at Delivery Hero, where I worked closely with global leadership and helped streamline internal processes, I decided to pivot toward data analytics to deepen my ability to uncover insights and support smarter decision-making.

Since then, I've developed a strong foundation in tools like SQL, Tableau, Excel, and Python, and I've built project work focused on operational performance, reporting, and customer analysis.
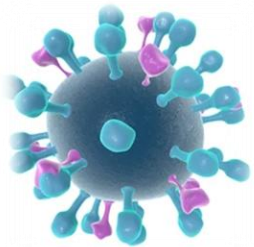
My goal is to apply both my operational experience and analytical skills in data-focused roles.

Influenza Season

To help U.S. healthcare providers plan staffing for flu season by identifying when and where patient volumes spike.

Data cleaning, Descriptive statistics, Pattern recognition, Strategic recommendations.

Excel   Tableau

Influenza Staffing Analysis

A U.S. based medical staffing agency used data analysis to anticipate demand during flu season. The goal was to help allocate limited resources, nurses, doctors, and physician assistants across all 50 states to minimize under and overstaffing, especially in high-need areas.

OBJECTIVES

- Identify when and where influenza cases peak across the U.S.

- Classify states by vulnerability to flu complications.

- Recommend a data-driven staffing plan to optimize resource allocation.

METHODS

- Cleaned and merged CDC influenza death data with U.S. Census demographics.

- Conducted exploratory data analysis on age groups and mortality patterns.

- Formulated and tested a hypothesis (65+ more likely to die from flu) using a one-tailed t-test.

- Measured correlation between elderly population and flu deaths.

- Categorized states into low, medium, and high need tiers based on vulnerability.

- Created spatial and temporal visualizations in Tableau for stakeholder use.

DATA

Sourced from CDC Influenza Deaths and U.S. Census Population Data. Link to Tableau story is here.

Total Influenza deaths in the United States between 2009 - 2017
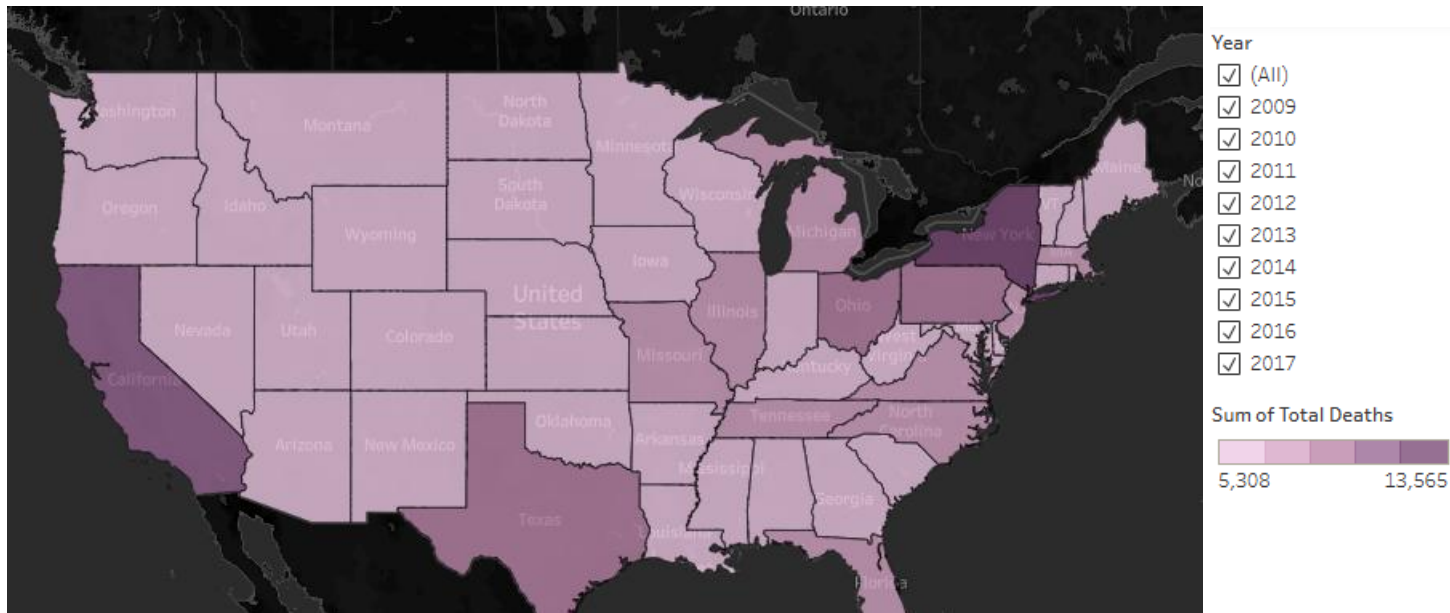
This map highlights the states with the greatest healthcare demand.

- **California, New York, and Texas** show the highest flu death rates from 2009–2017.

- These states may face greater pressure on healthcare systems during flu season.

- Understanding geographic hotspots helps prioritize where staff should be sent first.

- By adjusting for population size, we can spot real demand, not just big states.
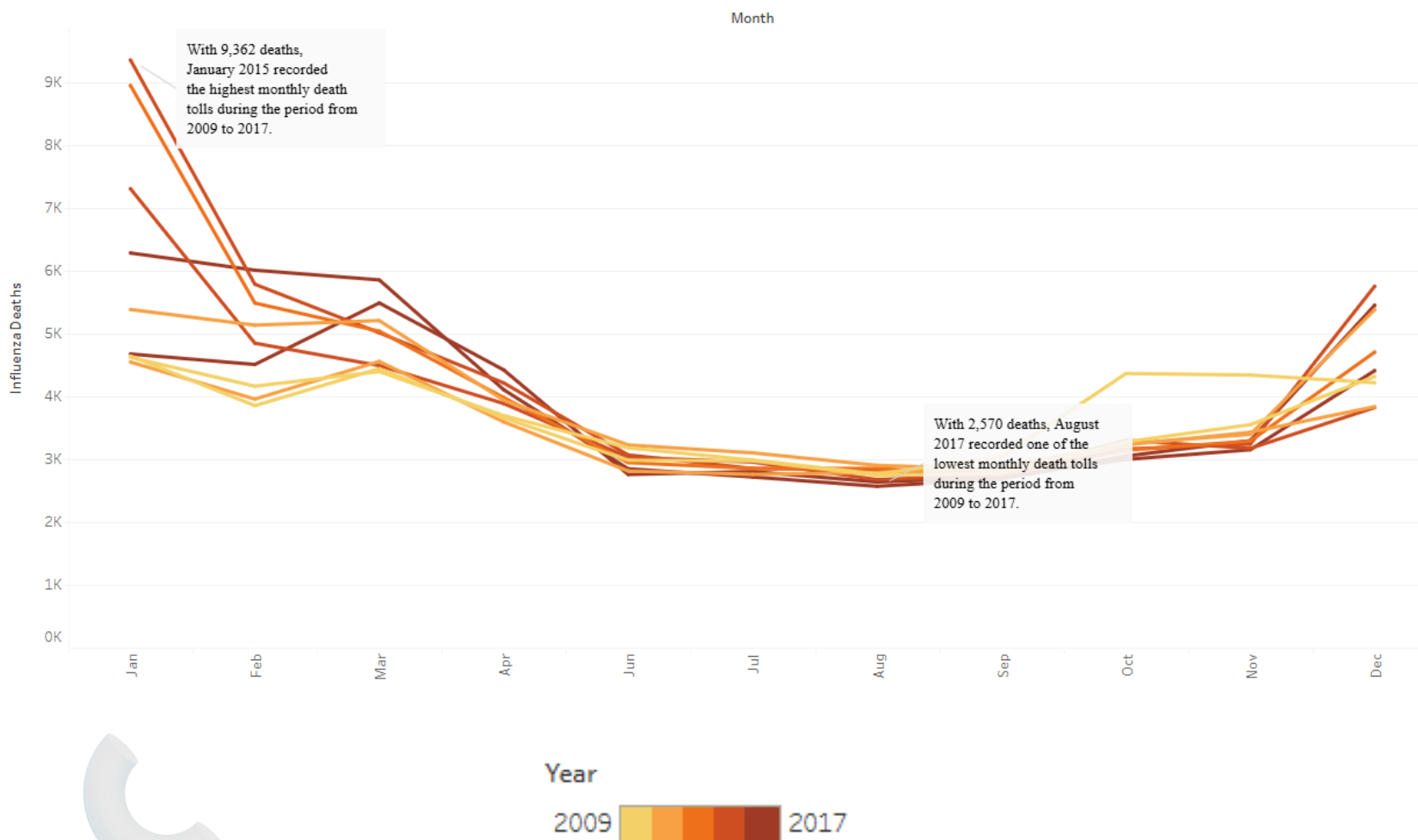
United States Death by Age Groups (2009 – 2017)
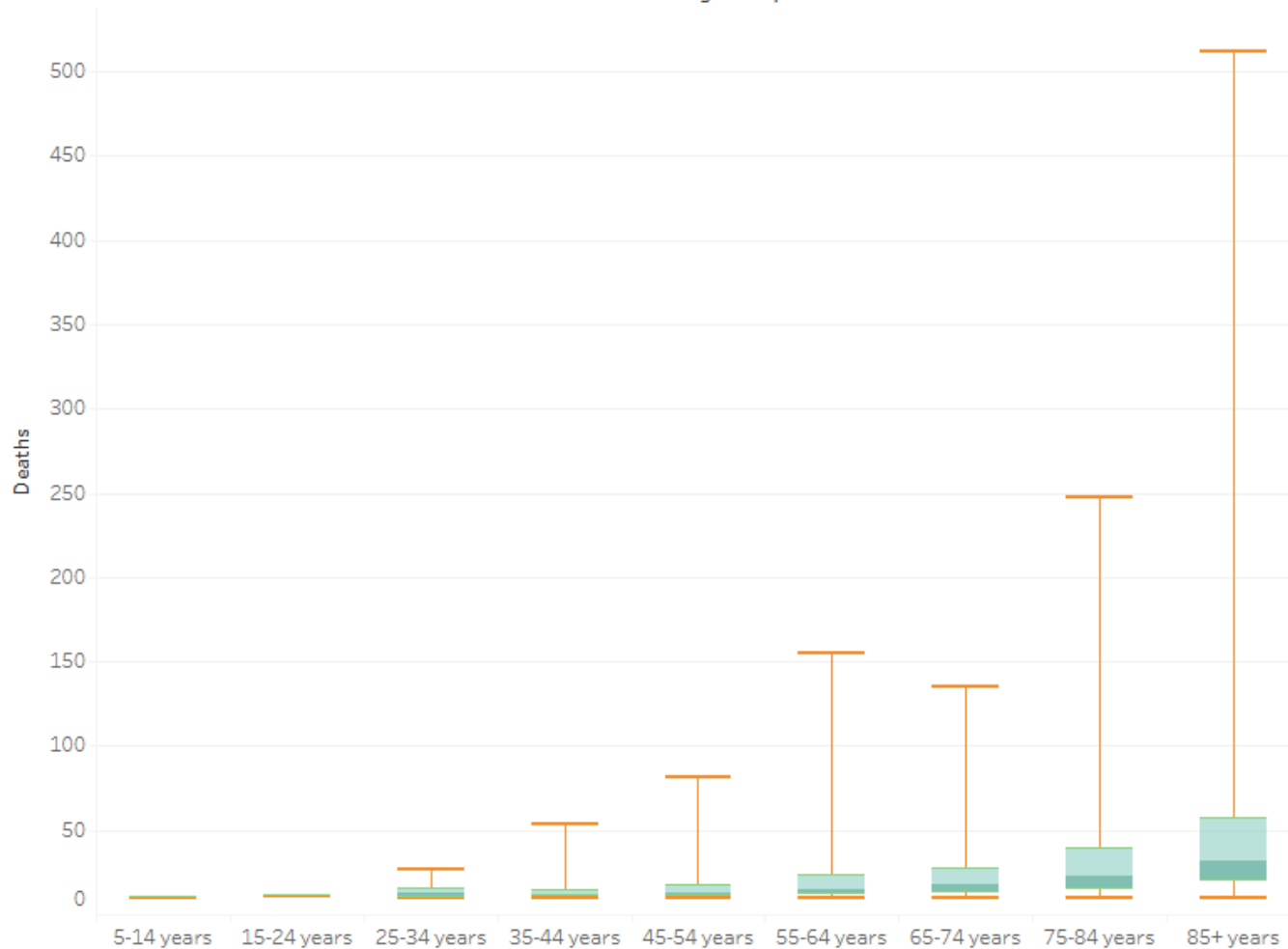
This box plot highlights the age groups most at risk.

- Deaths from influenza increase significantly in older age groups.

- The 65–74, 75–84, and 85+ brackets show the widest spread and highest death counts.

- Results vary across states, indicating regional differences in elderly vulnerability.

- Staffing plans should prioritize areas with large senior populations.

Influenza Activity by month (2009 – 2017)

Month

With 9,362 deaths, January 2015 recorded the highest monthly death tolls during the period from 2009 to 2017.

With 2,570 deaths, August 2017 recorded one of the lowest monthly death tolls during the period from 2009 to 2017.

Influenza Deaths

Year

2009 [color scale] 2017

This line chart reveals when flu hits hardest.

- Flu deaths peak between December and February, with January often the worst month.

- Activity starts rising in October, drops off by April, and stays low from May to September.

- These trends are key for staffing — hospitals should be fully prepared from November to March.

- Planning around this pattern ensures support arrives before the seasonal spike.

Recommendations

- Prioritize staffing in California, New York, and Texas during peak months (Dec–Feb).

- Add staff in states with large senior populations, who face the highest risk.

- Plan ahead using seasonal trends to avoid staffing gaps during flu surges.

- Stay flexible and adjust coverage if new hotspots emerge.
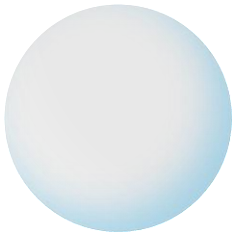
Influenza Season (Tableau + stats project)
Project Challenges & Reflections

Challenge

- Missing values in CDC data.

- Dataset tracked only deaths, not hospitalizations.

- Seasonal spikes varied across states.

Solution

- Combined CDC data with Census demographics.

- Ran t-test to confirm elderly risk.

- Grouped states into tiers and visualized in Tableau.

Reflection

- Clear seasonal patterns supported staffing plan.

- Limitation: deaths-only data underestimated demand.

- Next time: add hospitalization or Influenza like illness visit data.