

Answer 2.10

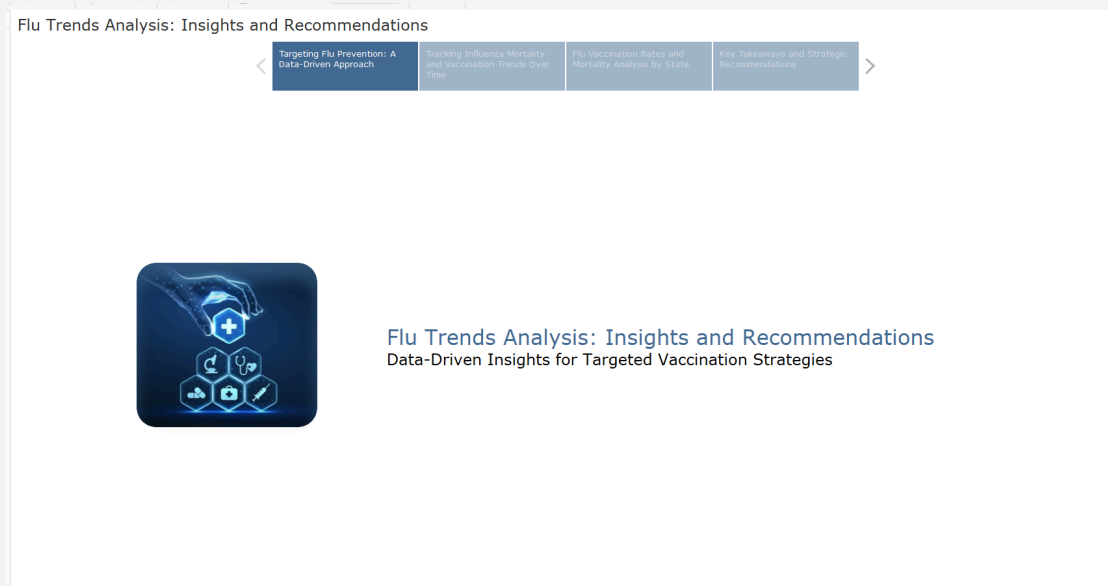
Date: 12/18/2024

Links to Resources

Tableau Storyboard:

[Flu Trends Analysis: Insights and Recommendations](#)

Flu Trends Analysis Insights and Recommendations



1. Targeting Flu Prevention: A Data-Driven Approach

Introduction to the Section:

Hi everyone,

I'm Yarisel Velacanto, and today I'm going to walk you through my analysis called *Flu Trends Analysis: Insights and Recommendations*.

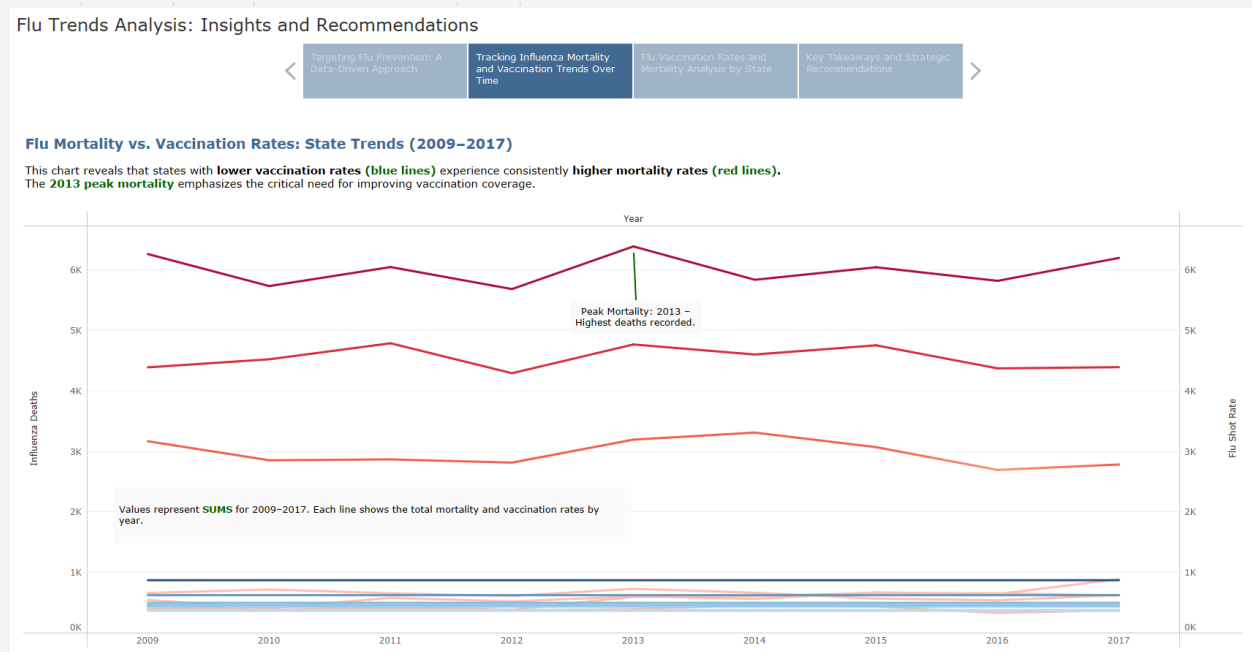
The main goal here was to take a data-driven approach to understand flu mortality trends and vaccination coverage across the country. I wanted to identify where the biggest challenges are and how we can target solutions like staffing and vaccination campaigns to make a real impact.

Key Message:

By analyzing historical flu trends and vaccination rates, we can pinpoint areas needing targeted campaigns and resource allocation. This sets the stage for improving public health strategies during flu season.

Transition:

First, we'll look at the big picture—how flu mortality trends have changed over time and what patterns stand out.



2. Tracking Influenza Mortality and Vaccination Trends Over Time

Here's the revised script with your tone and a more conversational flow to match how you'd present it naturally:

SCRIPT

1. Targeting Flu Prevention: A Data-Driven Approach

Introduction to the Section:

Hi everyone,

I'm Yarisel Velacanto, and today I'm going to walk you through my analysis called *Flu Trends Analysis: Insights and Recommendations*.

The main goal here was to take a data-driven approach to understand flu mortality trends and vaccination coverage across the country. I wanted to identify where the biggest challenges are and how we can target solutions like staffing and vaccination campaigns to make a real impact.

Key Message:

By diving into the data, I was able to spot trends that highlight which areas need the most help during flu season. This sets the stage for everything I'll cover today, so let's jump right in!

Transition:

First, we'll look at the big picture—how flu mortality trends have changed over time and what patterns stand out.

2. Tracking Influenza Mortality and Vaccination Trends Over Time

Introduction to the Section:

Here, I looked at trends in flu mortality and vaccination rates over time, specifically from **2009 to 2017**.

Explanation of the Visualization:

The chart shows two key trends:

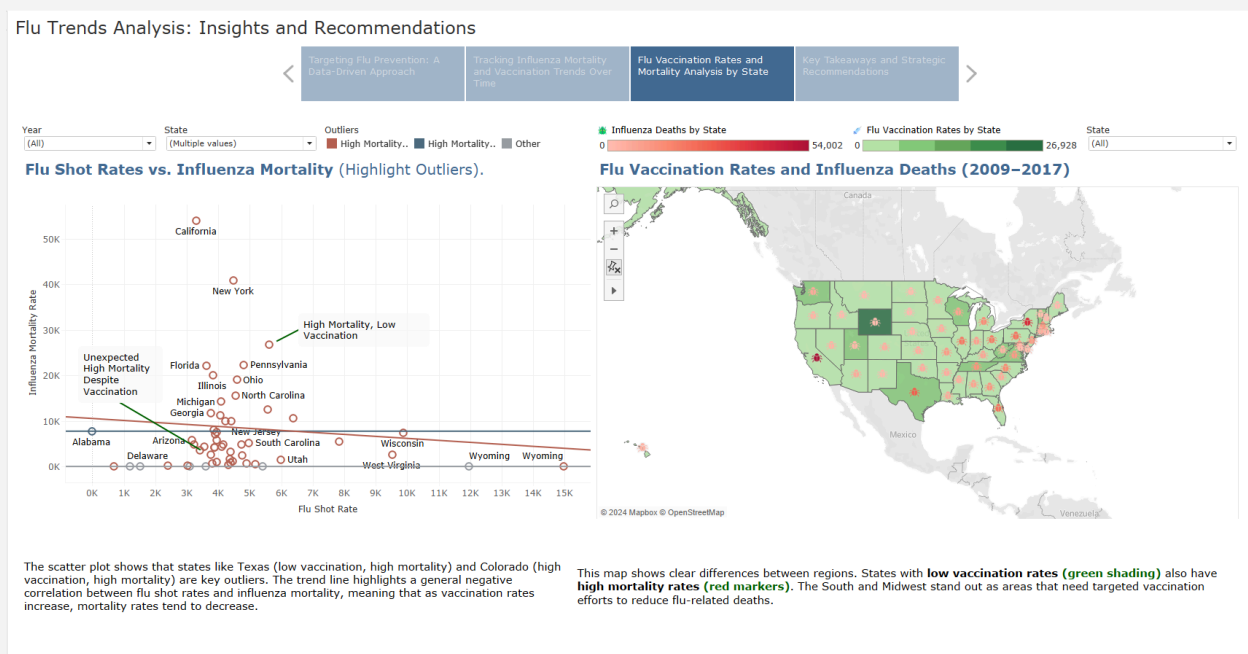
- The **red lines** represent flu-related deaths, and you can clearly see a spike in 2013, which was the worst year in this period.
- The **blue lines** represent vaccination rates, which have stayed low despite the mortality spikes.

Key Insight:

What stands out is that vaccination rates haven't improved enough to bring down flu deaths, especially during critical years like 2013. This tells us that there's a gap in coverage that we need to address.

Transition:

Now that we've seen these trends over time, let's explore how this plays out across different states and see if vaccination rates are tied to mortality.



3. Flu Vaccination Rates and Mortality Analysis by State

Introduction to the Section:

This part of the analysis focuses on how vaccination rates and flu mortality vary across different states. I used two visuals here:

1. A **scatter plot** showing the relationship between flu shot rates and mortality.
2. A **map** showing vaccination coverage and death rates across the country.

Explanation of the Visualizations:

- On the scatter plot, we see a **general negative trend**—states with lower vaccination rates tend to have higher mortality.
- The map gives us a clearer view:
 - **Green shading** shows vaccination coverage (darker = better coverage).
 - **Red markers** show where flu deaths are highest.

Key Discrepancies:

Some states really stood out:

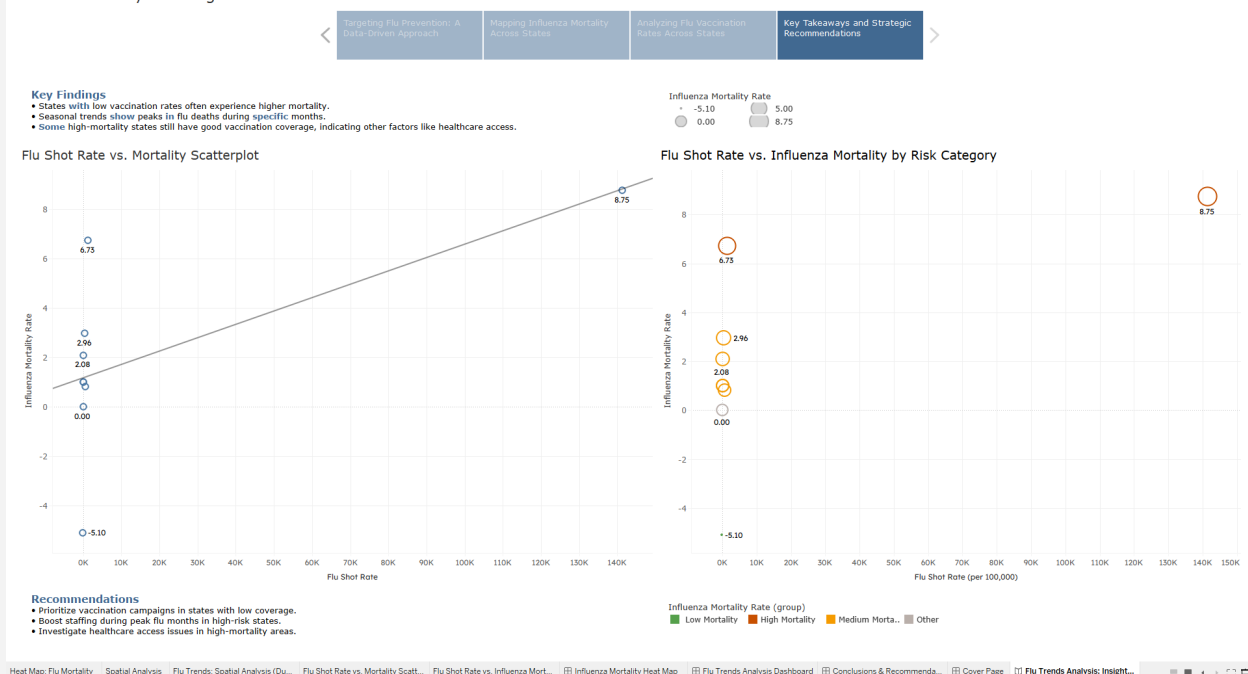
- **Texas and Mississippi:** They have **low vaccination rates** and **high mortality**—these are clear areas that need more focus on vaccination campaigns.
- **Wyoming:** High vaccination rates and low mortality—this shows us what success can look like.
- **Colorado:** This one's interesting because it has decent vaccination coverage but still experiences high mortality. This points to other factors like healthcare access or reporting issues that we need to dig into.

Key Message:

This analysis shows that while vaccination rates are critical, they're not the whole story. In states like Colorado, there are other barriers at play that we need to uncover to fully address flu mortality.

Transition:

With these insights in mind, let's talk about the key takeaways and what we can actually do to make a difference.



4. Key Takeaways and Strategic Recommendations

Introduction to the Section:

Let's take a step back and summarize the big takeaways from this analysis and what actions we can take to address the challenges we've seen.

Key Findings:

- Low Vaccination Rates = Higher Mortality:** States like **Texas** and **Mississippi** show a clear pattern of high deaths due to low vaccination coverage.
- Persistent Mortality Despite Vaccination:** States like **Colorado** and **Washington** still face high mortality, even though their vaccination rates look good. This suggests there are deeper issues like healthcare access or population density.
- Resource Hotspots:** States like **California** consistently record the highest mortality rates, which means they need extra support during flu seasons.

Recommendations:

So what can we do with this information? Here's what I suggest:

- Prioritize Vaccination Campaigns:** Focus on states with low coverage like Texas and Mississippi. Launch campaigns ahead of peak flu months to improve vaccination rates and save lives.
- Resource Planning for High-Mortality States:** Increase staffing and allocate more resources to high-risk states like California, where mortality is consistently high during flu seasons.
- Investigate Other Barriers:** In states like Colorado, conduct further research to uncover issues like healthcare access or reporting gaps that could be driving high mortality rates.

Closing Statement:

By taking these steps, we can focus resources where they're needed most, improve vaccination coverage, and save more lives during flu season.

Thank you so much for listening!

Reflection on Flu Trends Analysis and Recommendations

1. Data Limitations:

While this project revealed valuable insights, there were a few limitations:

- **Missing Data:** Some states had incomplete data for vaccination rates or flu deaths, which could have affected the accuracy of my analysis.
- **Lack of Demographic Information:** Without data like age or income, I couldn't identify which groups were most at risk. This would have been useful for more targeted recommendations.
- **Seasonality:** I didn't have access to seasonal data to pinpoint exactly when flu deaths spike. This would have helped plan staffing and vaccination drives more effectively.
- **Reporting Bias:** Some states may not report flu deaths or vaccination rates as accurately, which could have skewed results.

2. Metrics for Monitoring Impact:

To measure the success of these recommendations, here are the key metrics I'd track:

- **Vaccination Rates:** Monitor yearly changes, especially in targeted states like Texas and Mississippi.
- **Staffing Levels:** Track staff-to-patient ratios in high-risk states like California during peak flu months.
- **Hospitalization and Mortality Rates:** Check whether flu-related deaths and hospitalizations decrease over time in areas with targeted interventions.
- **Healthcare Access:** Track improvements like increased clinic availability, reduced wait times, or higher flu shot distribution.

What This Means:

These limitations show there's room for improvement in how we collect and report data. But even with these gaps, tracking metrics like vaccination rates and staffing will help us see if these recommendations are making a difference. If we had access to more detailed and complete data—especially demographics and seasonal trends—we could create even more targeted and effective strategies.

