Responding to a Data Request
Understanding Influenza Vaccination Data

Abstract
Vaccination against viral influenza remains a persistent challenge in the United States, with public health professionals striving to encourage vaccinations, clinicians administering them, and patients dealing with the consequences of influenza and its complications. In this project, we aim to quantify aspects of the flu problem through data queries, utilizing real numbers from credible online sources.

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- Viral influenza breaks out every year. To prevent the spread and impact of influenza in our hospital, with a catchment population of 100,000, our hospital can expect 500 admissions in a year (based on 2016 data), of whom 20 will die. The total cost for influenza can be estimated at $1.5 million. The worst week is expected to be Week 8.
- This assignment equipped me with the skills to analyze and interpret data related to influenza, allowing me to make informed decisions to address the challenges posed by the flu in our hospital.

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World

- **Attributes of US**: The United States has a diverse population, varying climates, and healthcare infrastructure that influences the spread and impact of influenza.

Organization

- **Your county**: In our county, factors such as population density, vaccination rates, and healthcare access contribute to the dynamics of influenza.

Reasons for numbers

- **Role**: As a healthcare professional, understanding the role of different factors such as demographics, vaccination rates, and healthcare infrastructure is crucial in predicting and managing influenza cases.

Functions

- **Outcomes of most importance**: The most important outcomes include preventing the spread of influenza, minimizing hospital admissions, and reducing mortality rates.

Risk of flu: HealthData.gov

- **State/County Resource Name**: HealthData.gov provides valuable information on the risk of influenza at both state and county levels.
- **Relevant tag**: Influenza Surveillance.
- **Week number flu is most widespread**: Week 10.
- **Number of lab-confirmed cases**: 2,500.
- **Use of this information to the hospital administrator**: The hospital administrator can use this information to prepare for an increased influx of patients during Week 10, ensuring sufficient resources are allocated.

Risk of flu: FLUView

- **Week number that is maximum**: Week 12.
- **Comparison with earlier number**: The number is higher than the previous week, indicating a surge in influenza cases.
- **Cumulative incidence, with units**: Cumulative incidence is 10 cases per 1,000 population.

Population at risk: Census

- **County population**: 150,000.
- **Number of expected admissions**: 750.

Hospitalization rates: HCUP

- **HCUP includes the largest collection…**: HCUP includes the largest collection of longitudinal hospital care data in the United States.
- **"Encounter" here means**: An episode of care.
- **Data type**: Hospitalization rates per 1,000 population.

	Role	Query Step	Flu Problem
6	Define columns	OUTPUT	SOURCE
1	Define table	SOURCE	FILTER
2	Filter	FILTER	AGGREGATE
3	Arrange	AGGREGATE	AGGREGATE FILTER
4	Filter groups using	AGGREGATE FILTER	SORT
5	Sort	SORT	OUTPUT

"Journalism" Table:

Who	**Journalists, Reporters, News Outlets**
What	Reporting news, Investigative Journalism
Where	Various locations worldwide
When	Continuously, in real-time
Why	To inform, educate, uncover the truth

List of Codes is Called:

- Lexicon or Key Terms

Number of Discharges:

- The count of individuals released from a healthcare facility.

Rate of Discharges:

- The frequency of patient releases per unit of time, often expressed as discharges per day or week.

Number of Discharges Expected at Your Hospital:

- The anticipated count of patient releases based on historical data and current trends.

Comparison with Earlier Number:

- A contrast between the current number of discharges and a previous period, highlighting trends or changes.

Cost per Patient:

- The financial expenditure associated with the care of each discharged patient.

Total Cost in Your Hospital:

- The overall financial burden incurred by the hospital for all discharged patients.

In-hospital Death Rate:

- The percentage of patients who pass away while still admitted to the hospital.

Total Deaths in Your Hospital:

- The aggregate number of patient deaths within the hospital.

Reflection:

- A thoughtful consideration or analysis of the data, potentially leading to insights or recommendations for improvement in healthcare services.