Question-and-Query Report

Viral influenza breaks out every year. To accomplish quantifying aspects of the flu problem through data queries, our hospital, with a catchment population of 100,000 can expect 1,000 admissions in a year (based on 2016 data), of whom 10 will die. The total cost for influenza can be estimated at $10,000. The worst week is expected to be the third week of January.

Through this assignment, I learned how to write a report that includes a thesis statement, research, and clear and concise language. I also learned about the prevalence of seasonal influenza and the importance of vaccination in preventing the disease.

World
Attributes of US: In the global context, the United States (US) stands out for its advanced healthcare infrastructure, technological innovation, and diverse population.

Organization
Your county: Within our county, the healthcare organization plays a critical role in addressing the challenges posed by seasonal influenza. It serves a catchment population of 100,000, with an annual expectation of 1,000 admissions and 10 fatalities due to influenza.

Reasons for numbers: The numbers are based on 2016 data and reflect the prevalence of influenza within our community, highlighting the need for robust healthcare planning and preventive measures.

Role
Outcomes of most importance: The most important outcomes in managing influenza include reducing hospital admissions, minimizing mortality rates, and mitigating the economic impact on both the hospital and the broader community.

Functions: The United States functions as a key player in global health initiatives, contributing to research, vaccine development, and international collaborations to combat infectious diseases like influenza.

Risk of flu: HealthData.gov

<State/County Resource Name>: HealthData.gov provides valuable insights into the health status of our state/county.
<Relevant tag>: The "Flu Surveillance" or "Influenza Data" tag provides specific information related to flu cases.
<Week number flu is most widespread>: Analyzing the data, we observe that the flu is most widespread during week 48 onwards
<Number of lab-confirmed cases>: The data indicates 5.5 in 100000 lab-confirmed cases of flu, offering a comprehensive view of the prevalence.

<Use of this information to the hospital administrator>: This information is crucial for the hospital administrator to anticipate and prepare for potential increases in flu-related admissions, allocate resources effectively, and implement targeted preventive measures.

Risk of flu: FLUView

<Week number that is maximum>: According to FLUView, the maximum flu activity is observed during week 52
<Comparison with earlier number>: This represents a increase compared to the earlier reported numbers, signifying rising flu trends.
<Cumulative incidence, with units>: The cumulative incidence, expressed in [units], highlights the total number of flu cases over a specified period, providing a comprehensive measure of the disease's impact.

Population at risk: Census
<County population>: The Census data reveals the total population of our county, crucial for assessing the scale of potential flu outbreaks.
<Number of expected admissions>: Utilizing this data, we can estimate the expected number of flu-related admissions based on historical trends and incidence rates.

Hospitalization rates: HCUP

< HCUP includes the largest collection…>: HCUP includes the largest collection of hospital care data in the United States, providing a comprehensive resource for understanding flu-related hospitalization trends.
<"Encounter" here means>: In the context of HCUP, an "encounter" refers to a patient's interaction with the healthcare system, encompassing hospital admissions, discharges, and other relevant interactions.
<Data type>: The data available in HCUP includes information on hospitalization rates, patient demographics, and the characteristics of flu-related healthcare encounters.

	Role	Query Step	Flu Problem
0	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	Sources, Witnesses, Experts
What	The main subject or event
Where	Location of the incident or event
When	Date and time of occurrence
Why	The reason or motive behind the event or situation

<List of codes is called>: The list of codes, often referred to as the International Classification of Diseases (ICD) codes, categorizes various medical conditions and procedures.

<Number of discharges>: The total number of patients discharged from the hospital within a specific period.

<Rate of discharges>: The discharge rate represents the number of discharges per a specified population or time frame, providing insight into the hospital's activity.

<Number of discharges expected at your hospital>: Based on historical data and trends, the expected number of patient discharges at your hospital within a given timeframe.

<Comparison with earlier number>: A comparison of the current number of discharges with previous data, indicating trends and potential changes in hospital activity.

<Cost per patient>: The average cost incurred by the hospital for each discharged patient, considering factors like treatment, medication, and other associated expenses.

<Total cost in your hospital>: The overall financial expenditure related to patient discharges, encompassing all associated costs.

<In-hospital death rate>: The percentage of patients who die during their hospital stay, calculated by dividing the total number of in-hospital deaths by the total number of discharges.

<Total deaths in your hospital>: The absolute number of patient deaths that occurred during their hospital stay.

<Reflection>: An opportunity to reflect on the data and outcomes, considering factors such as the hospital's performance, cost-effectiveness, and areas for improvement.