# **SOPLEX TECHNOLOGIES**



# "Hospital Ownership, Emergency Services, and Patient Experience Analysis"

Task 1

Fill in a section box

AI: Marketing:

**SUBMITTED TO: AI DEPARTMENT** 

**SUBMITTED BY:** 

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| €jity        | Hospital overall rating | Location  |
|--------------|-------------------------|---|
| ALBANY       | 1                       | 417 THIRD AVENUE<br>ALBANY, GA<br>(31.590229, -84.156267)               |
| ALBUQUERQUE  | 1                       | 2211 LOMAS BOULEVARD NE<br>ALBUQUERQUE, NM<br>(35.087483, -106.618148)  |
| ATLANTA      | 1                       | 303 PARKWAY DRIVE, NE<br>ATLANTA, GA<br>(33.76327, -84.373986)          |
| ATLANTA      | 1                       | 80 JESSE HILL, JR DRIVE SE<br>ATLANTA, GA<br>(33.752279, -84.382475)    |
| AUGUSTA      | 1                       | 1120 15TH STREET<br>AUGUSTA, GA<br>(33.47102981.991453)                 |
| BAKERSFIELD  | 1                       | 1700 MOUNT VERNON AVENUE<br>BAKERSFIELD, CA<br>(35.380964, -118.967546) |
| BARBOURVILLE | 1                       | 80 HOSPITAL DRIVE<br>BARBOURVILLE, KY<br>(36.85231, -83.87152)          |
| BAY SHORE    | 1                       | 301 EAST MAIN STREET<br>BAY SHORE, NY<br>(40.724858, -73.240889)        |
| BINGHAMTON   | 1                       | 169 RIVERSIDE DRIVE<br>BINGHAMTON, NY<br>(42.09264, -75.935558)         |
| BRONX        | 1                       | 111 EAST 210TH STREET<br>BRONX, NY<br>(40.879777, -73.879975)           |
|              |                         | (40.019111, -13.019913)   |

# **Interpretation of Each Visual for Rating 1:**

# Table (Left Panel)

## **Hospital Name:**

- ➤ The table lists the hospital names, such as Albany, Albuquerque, Atlanta, and Bakersfield etc. with rating 1.
- For each hospital, the location (address) is also listed, providing insights into where these hospitals are situated.

# **Hospital Overall Rating:**

- ➤ The Hospital Overall Rating column shows that the rating is 1 for several hospitals, indicating that these hospitals have a rating of 1 according to the dataset.
- ➤ The rating could represent a variety of factors like hospital performance, quality of care, or a specific metric (e.g., patient satisfaction, care standards).

#### Location:

➤ The Location column provides the addresses of each hospital, which helps to geographically map the distribution of hospitals.

## **Card Visuals (Right Panel)**

The card visuals give quick numerical summaries of the key metrics in the dataset:

#### **Count of State: 27**

- This card tells us that the dataset includes hospitals from 27 distinct states in the U.S. The dataset is spread across a wide geographical area, with each state containing hospitals of various types.
- This metric is useful for understanding how geographically diverse the dataset is.

#### **Count of City: 78**

- There are 78 distinct cities represented in the dataset. This means hospitals are distributed across 78 different cities, providing insight into the urban and rural spread of healthcare services.
- This metric indicates that the dataset contains hospitals from a broad set of urban areas, with each city potentially having multiple hospitals.

## **Count of Hospital Name: 107**

- ➤ There are 107 unique hospitals in the dataset. This number represents the total count of individual hospitals included, based on Hospital Name.
- It confirms the size of the dataset in terms of hospital entries.

## **Count of County Name: 66**

- ➤ The dataset includes hospitals from 66 distinct counties. This reflects the geographical distribution of hospitals across the U.S. counties.
- ➤ Some counties may contain more than one hospital, which suggests that the dataset covers both densely populated and more rural areas.

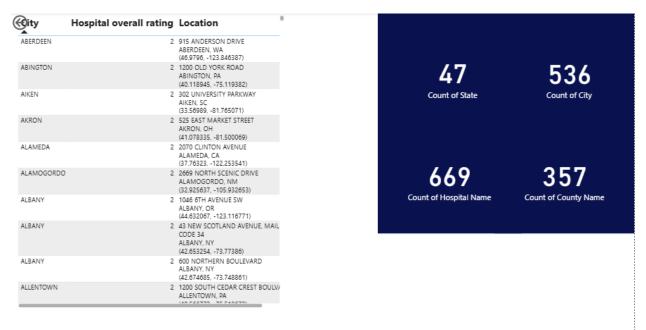
## **Interpretation of Filter for Rating 1:**

#### Rating 1 (107 hospitals):

- The filter indicates that 107 hospitals in the dataset are classified under Rating 1.
- Rating 1 likely represents hospitals with lower performance or below average ratings, based on the specific metrics or evaluation criteria used in the dataset (such as patient satisfaction, quality of care, or other performance indicators).

➤ With 107 hospitals in this category, this shows a specific subset of hospitals that may need improvement in various areas compared to those in higher rating categories.

This filter provides a way to isolate and focus on hospitals with the lowest performance rating for further analysis or improvement strategies.



## **Interpretation of Each Visual for Rating 2:**

#### **Table (Left Panel):**

## **Hospital Name and Location:**

- ➤ The table lists hospitals like Aberdeen, Abington, Aiken, and Alameda, with their addresses and hospital overall ratings.
- > These hospitals have a Rating 2, meaning they are categorized as below average or medium performance based on specific rating criteria.

## **Hospital Rating:**

All the hospitals listed have a Rating 2, which suggests that these hospitals are performing at an average or medium level compared to others. This could mean they meet some of the criteria but still have room for improvement in certain areas (e.g., patient satisfaction, care quality, or operational efficiency).

#### **Card Visuals (Right Panel):**

The card visuals summarize key metrics, and here's the interpretation based on Rating 2:

#### Count of State: 47:

- ➤ The dataset includes 47 distinct states where hospitals with Rating 2 are located.
- ➤ This indicates that Rating 2 hospitals are spread across a significant number of states, meaning that a fair portion of hospitals have this average rating across the U.S.

## Count of City: 536:

- ➤ There are 536 distinct cities with Rating 2 hospitals.
- This suggests that hospitals in Rating 2 are present in many urban and suburban areas, covering a broad geographic region.

## **Count of Hospital Name: 669:**

- ➤ 669 hospitals fall under Rating 2.
- This means that there are 669 individual hospitals with medium performance as per the criteria of the rating system used in the dataset.
- ➤ Hospitals in this category could be performing better than those in Rating 1, but still, there is potential for further improvement.

#### **Count of County Name: 357:**

- ➤ The hospitals with Rating 2 are in 357 distinct counties.
- This shows that Rating 2 hospitals are spread across a wide range of counties, with some counties having multiple hospitals in this category.

#### Filter Section (Right Panel):

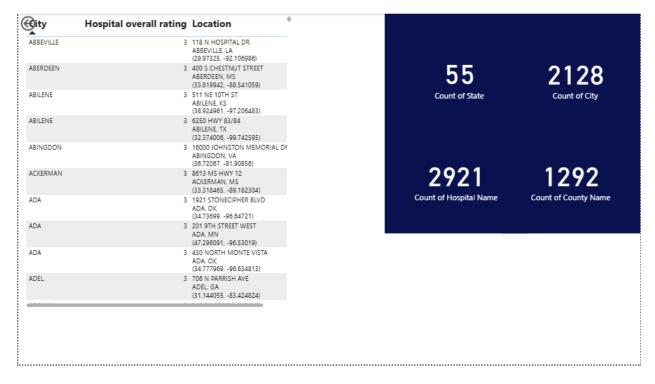
The filter for Rating 2 shows that:

- ➤ 678 hospitals are rated 2, meaning this category includes a large portion of hospitals.
- ➤ This rating might represent medium quality or average performance, and these hospitals can be further analyzed to understand what factors contribute to this rating.

#### **Key Insights for Rating 2:**

- ➤ Geographical Spread: The Rating 2 hospitals are distributed across 47 states, with hospitals in 536 cities and 357 counties. This indicates that Rating 2 hospitals are widespread across the U.S.
- ➤ Hospital Count: There are 669 hospitals in Rating 2, making this the largest group in the dataset, suggesting that a significant portion of hospitals fall into this medium performance category.
- ➤ Performance Implication: The hospitals in Rating 2 may be performing adequately, but they are likely to have room for improvement compared to higher-rated hospitals (e.g., Rating 3 and above).

This analysis helps to understand the distribution and characteristics of Rating 2 hospitals, showing both their geographical spread and the number of hospitals in this rating category.



# **Interpretation of Each Visual for Rating 3:**

## **Table (Left Panel):**

## **Hospital Name and Location:**

- ➤ The table lists hospital names such as Abbeville, Aberden, Abilene, Ackerman, and others, along with their addresses and hospital overall ratings.
- All hospitals listed have a Rating 3, indicating these hospitals are performing at a medium-to-high level based on the dataset's rating criteria. These hospitals are

likely to meet most of the performance benchmarks but still have areas for improvement compared to higher-rated hospitals (e.g., Rating 4 or Rating 5).

#### **Card Visuals (Right Panel):**

The card visuals provide a summary of key metrics, and here's the interpretation for Rating 3 hospitals:

#### Count of State: 55:

- The dataset contains hospitals with Rating 3 from 55 distinct states. This means the hospitals with Rating 3 are geographically spread across more than half of the U.S. states.
- This indicates that hospitals in Rating 3 are well-represented across the country.

## Count of City: 2128:

- ➤ There are 2128 distinct cities with Rating 3 hospitals.
- This suggests that hospitals in Rating 3 are in many cities, both urban and suburban, across the U.S.

## **Count of Hospital Name: 2921:**

- ➤ 2921 hospitals have a Rating 3, representing a significant portion of the total dataset.
- These hospitals are performing better than those in Rating 1 and Rating 2, but still fall behind the highest-rated hospitals (Rating 4 and Rating 5).

#### **Count of County Name: 1292:**

- ➤ 1292 counties contain hospitals with Rating 3.
- ➤ This reflects the spread of Rating 3 hospitals across a large number of counties, indicating that hospitals with this rating are widely distributed geographically.

#### Filter Section (Right Panel):

The filter for Rating 3 shows:

➤ 2921 hospitals are rated 3. This is the largest number of hospitals across all rating categories in the dataset, indicating that Rating 3 hospitals represent a significant portion of the hospitals included.

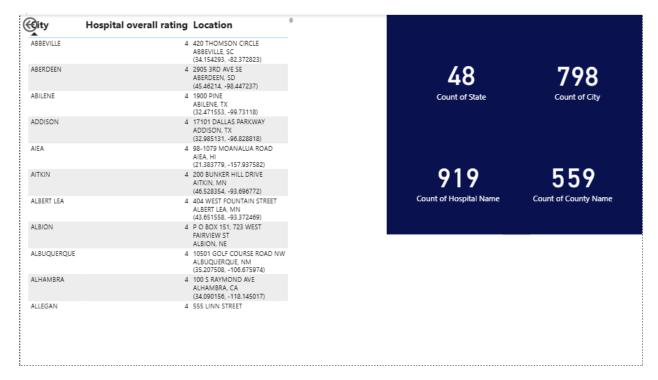
Rating 3 likely represents good performance, and the hospitals in this category meet most criteria but still leave room for further improvement to reach Rating 4 or Rating 5.

#### **Key Insights for Rating 3:**

- > Geographical Spread: Rating 3 hospitals are distributed across 55 states and 2128 cities, indicating that this category is widespread and covers a significant portion of the U.S.
- ➤ Hospital Count: There are 2921 hospitals in Rating 3, which is the largest group in the dataset, suggesting that many hospitals are performing at a medium to high level.
- > County Distribution: These hospitals are located in 1292 counties, highlighting the extensive geographical presence of Rating 3 hospitals.

#### **Conclusion:**

Rating 3 hospitals represent the largest segment of hospitals in the dataset, making up a substantial portion of the healthcare providers. They are geographically widespread and perform at a level that's better than Rating 1 and Rating 2 hospitals, yet may still have areas for improvement when compared to Rating 4 and Rating 5 hospitals.



#### **Interpretation of Each Visual for Rating 4:**

#### **Table (Left Panel):**

## **Hospital Name and Location:**

- The table lists hospitals such as Abbeville, Aberdeen, Addison, Aiea, Aitkin, and others, with their addresses and hospital overall ratings.
- All hospitals listed have a Rating 4, which indicates that these hospitals are performing at a high level, meeting or exceeding most quality and performance benchmarks.
- ➤ Rating 4 hospitals are generally regarded as high-performing compared to hospitals with lower ratings.

## **Card Visuals (Right Panel):**

The card visuals summarize key metrics for Rating 4 hospitals:

#### Count of State: 48:

- ➤ The dataset includes Rating 4 hospitals from 48 distinct states.
- This means that hospitals with Rating 4 are present in almost all U.S. states, with only a few states not having hospitals in this high-performance category.
- ➤ This suggests Rating 4 hospitals are geographically widespread.

## Count of City: 798:

- There are 798 distinct cities that have hospitals with Rating 4.
- ➤ This indicates a broad urban and suburban distribution of high-performing hospitals. Rating 4 hospitals are well-represented across cities of varying sizes.

#### **Count of Hospital Name: 919:**

- > 919 hospitals are classified under Rating 4.
- ➤ These hospitals are performing at a high level based on the metrics used for evaluation. Rating 4 hospitals likely excel in patient care, safety, and overall quality.

## **Count of County Name: 559:**

- ➤ There are 559 counties that contain hospitals with Rating 4.
- This shows that high-performing hospitals are located in many counties, both large and small, reflecting wide distribution across the country.

#### Filter Section (Right Panel):

The filter for Rating 4 shows:

➤ 919 hospitals have a Rating 4, representing a high-performance category.

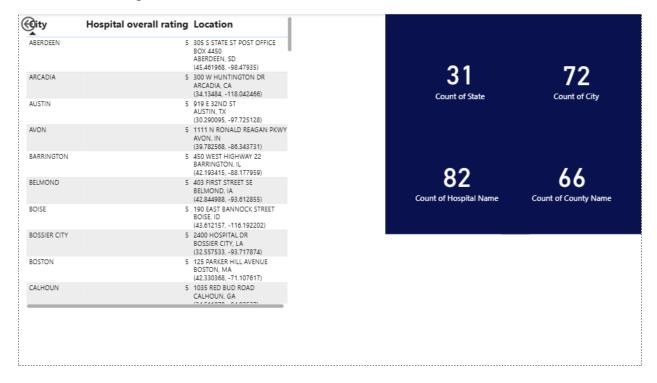
➤ This is a relatively smaller subset compared to Rating 3, but these hospitals are performing significantly better than those in Rating 1 and Rating 2 categories.

## **Key Insights for Rating 4:**

- ➤ Geographical Spread: Rating 4 hospitals are found in 48 states, meaning they are widespread and cover a significant portion of the U.S.
- > City Distribution: These hospitals are located in 798 cities, indicating their presence in both urban and suburban areas.
- ➤ Hospital Count: With 919 hospitals in Rating 4, this category includes a substantial number of high-performing hospitals, reflecting a solid portion of the overall healthcare system.
- ➤ County Distribution: 559 counties have Rating 4 hospitals, further reinforcing the wide distribution and reach of high-performing hospitals across the country.

#### **Conclusion:**

Rating 4 hospitals represent a group of hospitals that are performing at a high level, and they are spread across many states, cities, and counties. This reflects the strong presence of high-quality healthcare providers in the dataset, but still fewer in number compared to Rating 3 hospitals, which have the largest count.



## **Interpretation of Each Visual for Rating 5:**

## **Table (Left Panel):**

## **Hospital Name and Location:**

- ➤ The table lists hospitals with Rating 5, such as Aberdeen, Arcadia, Austin, Avon, and others. These hospitals are highly rated, indicating exceptional performance based on the rating criteria used in the dataset.
- ➤ Hospitals in this category are likely performing at the top tier, excelling in areas such as patient care, operational efficiency, safety, and patient satisfaction.
- The addresses for each hospital are provided, showing the geographic diversity of Rating 5 hospitals across different U.S. cities.

#### **Card Visuals (Right Panel):**

The card visuals offer a quick summary of key metrics for hospitals with Rating 5:

#### **Count of State: 31:**

- ➤ The dataset includes Rating 5 hospitals from 31 distinct states.
- ➤ This indicates that Rating 5 hospitals are spread across a relatively smaller number of states compared to other categories (like Rating 3 or Rating 2). These hospitals, however, represent the best-performing hospitals in those states.

## Count of City: 72:

- > There are 72 distinct cities with Rating 5 hospitals.
- This suggests that Rating 5 hospitals are located in highly urbanized areas, and they are likely concentrated in major metropolitan cities that have the infrastructure and resources to support top-tier healthcare.

## **Count of Hospital Name: 82:**

- ➤ The dataset contains 82 hospitals with a Rating 5.
- > This indicates that 82 hospitals are classified as top-performing in the dataset. While the number of hospitals with Rating 5 is smaller compared to other ratings (such as Rating 3), these hospitals represent the best in the dataset.

#### **Count of County Name: 66:**

- Rating 5 hospitals are located in 66 distinct counties.
- This shows that top-performing hospitals are spread across various counties, suggesting that these hospitals are accessible to a significant portion of the U.S. population.

#### **Filter Section (Right Panel):**

The filter for Rating 5 shows:

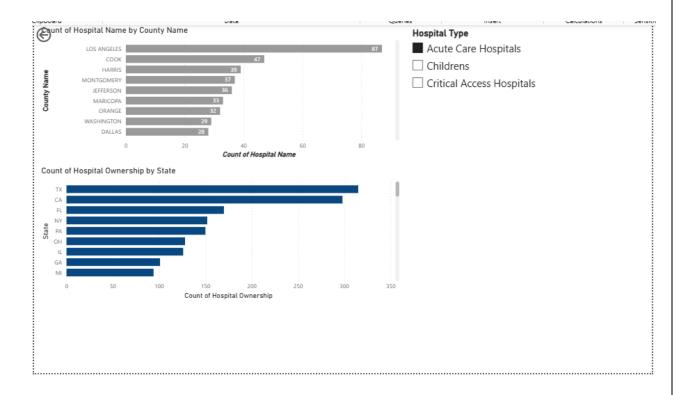
- ➤ 82 hospitals fall under Rating 5, indicating that a smaller but significant portion of hospitals are performing at the highest level.
- Rating 5 hospitals are likely elite in terms of performance, offering exceptional care and services compared to the other categories (Rating 1, Rating 2, Rating 3, Rating 4).

#### **Key Insights for Rating 5:**

- ➤ Geographical Spread: Rating 5 hospitals are located across 31 states, showing that top-tier hospitals are distributed throughout the country but are not as widespread as lower-rated hospitals (e.g., Rating 3).
- ➤ City Distribution: Rating 5 hospitals are found in 72 cities, indicating their presence in major urban centers where resources and healthcare infrastructure support top-rated care.
- ➤ Hospital Count: There are 82 hospitals in Rating 5, which is the smallest category in terms of number, but these hospitals represent the elite tier of healthcare providers.
- ➤ County Distribution: Rating 5 hospitals are located in 66 counties, indicating that highperforming hospitals are distributed across many counties, though they may not be as widespread as hospitals in lower rating categories.

#### **Conclusion:**

Rating 5 hospitals are the best-performing hospitals in the dataset, excelling in patient care and overall performance. While there are fewer Rating 5 hospitals (only 82), they are spread across 31 states and 72 cities, with a presence in 66 counties. These hospitals are geographically concentrated in major cities and highly populated counties, representing the top tier of healthcare providers.



#### **Interpretation of Visuals for Acute Care Hospitals:**

## **Count of Hospital Name by County Name (Top Chart):**

This chart shows the number of Acute Care hospitals in each county, focusing on the top counties.

#### **Key Findings:**

- ➤ Los Angeles County has the highest count of Acute Care hospitals, with 87 hospitals.
- ➤ Other counties like Cook (47), Harris (39), Montgomery (37), Jefferson (36), and Maricopa (35) also have a high number of Acute Care hospitals.
- ➤ Washington (29) and Dallas (28) counties have slightly fewer Acute Care hospitals, but still contribute significantly to the dataset.

## **Interpretation**:

- Los Angeles stands out as the leading county with the highest number of Acute Care hospitals, likely due to its large population and urbanization.
- Acute Care hospitals are spread across key urban counties, with Cook, Harris, and others showing a significant presence of these types of hospitals, suggesting high healthcare demand in these areas.

➤ The gray bars represent the number of Acute Care hospitals in each county, providing insights into the distribution and concentration of healthcare facilities.

## **Count of Hospital Ownership by State (Bottom Chart):**

This chart displays the count of Acute Care hospitals by state.

#### **Key Findings**:

- Texas (TX) leads with the highest number of Acute Care hospitals, showing approximately 350 hospitals in the state.
- California (CA) follows closely with a substantial number of Acute Care hospitals, but Texas has a larger healthcare infrastructure.
- Florida (FL), New York (NY), and Pennsylvania (PA) also have large numbers of Acute Care hospitals.
- ➤ Other states like Ohio (OH), Illinois (IL), Georgia (GA), and Michigan (MI) contribute to the Acute Care hospital count, but their numbers are comparatively smaller.

#### **Interpretation**:

- Texas has the highest concentration of Acute Care hospitals, possibly due to its large population and healthcare system.
- ➤ California, Florida, and New York also show high numbers, reflecting the large healthcare infrastructure in these states.
- The blue bars represent the Acute Care hospital ownership in each state, and the length of the bars indicates the scale of hospital distribution in each region.

## **Hospital Type Filter (Right Panel):**

The filter shows the option to display hospitals by Acute Care, Children's, and Critical Access categories.

- Acute Care Hospitals is selected, indicating that both charts (above) are focused specifically on this category.
- Acute Care Hospitals are generally hospitals that provide short-term treatment for severe or urgent medical conditions.

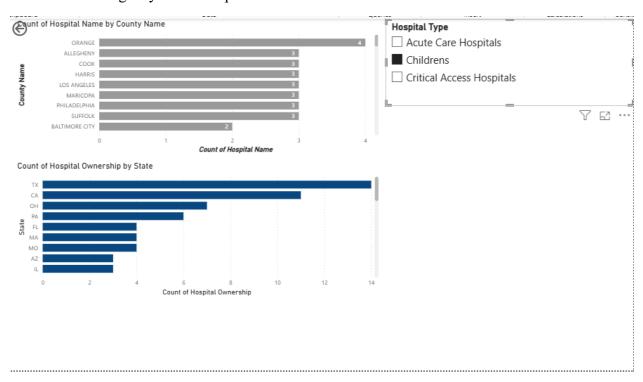
#### **Key Insights for Acute Care Hospitals:**

- > Geographical Spread: Acute Care hospitals are heavily concentrated in urban counties like Los Angeles and Cook, with many hospitals located in high-population regions.
- > State Distribution: Texas leads the Acute Care hospital count, followed by California, Florida, and New York. These states have the largest healthcare infrastructure for Acute Care services.

> High Healthcare Demand Areas: The high number of Acute Care hospitals in urban counties and large states reflects areas with higher demand for urgent and specialized healthcare services.

## **Conclusion:**

The data shows that Acute Care hospitals are distributed across several major urban areas and populous states. Texas, California, and Florida are key regions with the highest number of Acute Care hospitals, indicating that these areas are likely to face a higher demand for emergency care and specialized services.



#### **Interpretation of Visuals for Children's Hospitals:**

#### **Interpretation of Visuals for Critical Access Hospitals:**

#### **Count of Hospital Name by County Name (Top Chart):**

## **Key Findings:**

- The chart shows the number of Critical Access hospitals in each county.
- ➤ Lincoln County has the highest number of Critical Access hospitals, with 21 hospitals.
- ➤ Washington County follows closely with 15 hospitals, while Grant County has 11 hospitals.

- ➤ Madison (10), Jackson (10), and Jefferson (10) counties all have a moderate number of hospitals, indicating a significant presence of Critical Access hospitals in these areas.
- ➤ Polk (9), Franklin (8), and Clay (8) counties have slightly fewer Critical Access hospitals, but still contribute to the overall count.

#### **Interpretation**:

- Lincoln County stands out as the county with the largest concentration of Critical Access hospitals, likely due to its rural nature and healthcare needs.
- ➤ Other counties, such as Washington, Grant, and Madison, also show a notable presence of Critical Access hospitals, which indicates that rural or underserved areas often rely on these types of facilities for healthcare access.
- The gray bars represent the number of Critical Access hospitals in each county, showing the concentration of these hospitals in certain regions.

#### **Count of Hospital Ownership by State (Bottom Chart):**

## **Key Findings:**

- ➤ The chart shows the number of Critical Access hospitals by state.
- ➤ Kansas (KS) has the largest number of Critical Access hospitals, with approximately 80 hospitals.
- ➤ Iowa (IA) and Texas (TX) follow closely with about 60 hospitals each, showing that these states have substantial infrastructure for Critical Access hospitals.
- Minnesota (MN) and Nebraska (NE) also have a significant presence of Critical Access hospitals, with counts ranging from 40 to 50 hospitals.
- ➤ Other states such as Illinois (IL), Wisconsin (WI), Montana (MT), and Washington (WA) show fewer Critical Access hospitals, ranging from 20 to 30 hospitals each.

#### **Interpretation**:

- ➤ Kansas leads with the highest number of Critical Access hospitals, which likely reflects the state's rural areas where Critical Access hospitals are essential for providing basic healthcare services.
- ➤ Iowa and Texas also have a high number of Critical Access hospitals, reinforcing the importance of these facilities in large, rural states.
- > States like Minnesota and Nebraska show strong representations of Critical Access hospitals, which are typically located in rural or remote areas that lack larger, urban hospitals.

➤ The blue bars represent the count of Critical Access hospital ownership in each state, visually displaying how Critical Access hospitals are distributed across different regions.

#### **Hospital Type Filter (Right Panel):**

Hospital Type: The filter shows the option to view data for different hospital types:

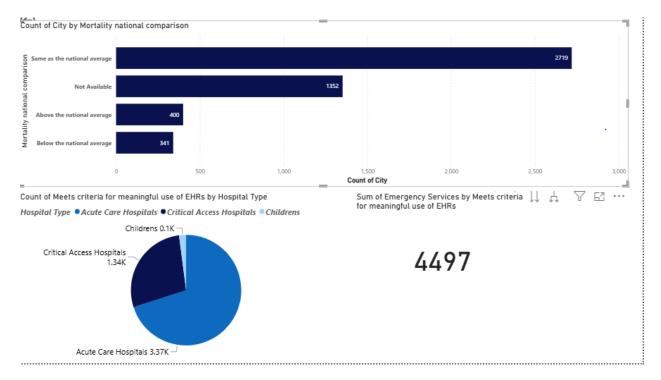
- Critical Access Hospitals is selected, so the charts above focus specifically on Critical Access hospitals.
- Critical Access hospitals are a type of hospital designed to provide care to rural communities that have limited access to larger hospitals.

## **Key Insights for Critical Access Hospitals:**

- > Geographical Distribution: Critical Access hospitals are highly concentrated in rural areas of states like Kansas, Iowa, and Texas, where healthcare access is more limited, and smaller hospitals are essential for serving local populations.
- > County Distribution: Lincoln County has the largest number of Critical Access hospitals, and other rural counties also show strong representation, indicating that these facilities are critical for providing care in underserved areas.
- > State Distribution: States like Kansas, Iowa, and Texas have the highest number of Critical Access hospitals, reflecting the critical role of these hospitals in rural healthcare systems. Other states, such as Minnesota and Nebraska, also have a significant number of Critical Access hospitals.

#### **Conclusion:**

Critical Access hospitals play a vital role in providing healthcare to rural and underserved populations. States like Kansas, Iowa, and Texas show the highest concentrations of these hospitals, underlining their importance in regions with limited access to larger healthcare facilities.



## **Interpretation of Each Visual:**

## **Count of City by Mortality National Comparison (Top Chart):**

## **Key Findings:**

- This chart shows the count of cities based on their national mortality comparison.
- > 2,719 cities have "Same as the national average" for mortality.
- ➤ 1,352 cities have "Not Available" data on mortality.
- ➤ 400 cities have "Above the national average" mortality.
- ➤ 341 cities have "Below the national average" mortality.

#### **Interpretation**:

- ➤ Most cities have mortality rates that are the same as the national average (2,719 cities).
- A relatively smaller number of cities show higher mortality rates (400 cities above the national average) and lower mortality rates (341 cities below the national average), indicating some variation in healthcare outcomes.
- ➤ The 1,352 cities with "Not Available" data suggest that there may be incomplete or missing mortality data for these areas.

## Count of Meets Criteria for Meaningful Use of EHRs by Hospital Type (Bottom Chart):

## **Key Findings:**

- The pie chart represents the count of hospitals that meet the criteria for meaningful use of Electronic Health Records (EHRs), broken down by hospital type:
  - Critical Access Hospitals: 1.34K hospitals.
  - Acute Care Hospitals: 3.37K hospitals.
  - Children's Hospitals: 0.1K hospitals.

#### **Interpretation**:

- Acute Care Hospitals represent the largest group meeting the criteria for meaningful use of EHRs, with 3.37K hospitals.
- ➤ Critical Access Hospitals follow with 1.34K hospitals, which are more commonly found in rural areas and also meet the EHR criteria.
- ➤ Children's Hospitals have the smallest number, with only 0.1K hospitals meeting the EHR criteria, reflecting the specialized nature of these facilities and their use of digital health records.

# <u>Sum of Emergency Services by Meets Criteria for Meaningful Use of EHRs (Bottom-right Card):</u>

#### **Key Findings**:

The total number of emergency services hospitals that meet the criteria for meaningful use of EHRs is 4,497.

#### **Interpretation**:

This metric shows that a total of 4,497 hospitals providing emergency services meet the criteria for meaningful use of EHRs, indicating a strong adoption of electronic health records in hospitals that provide urgent and emergency care.

#### **Key Insights:**

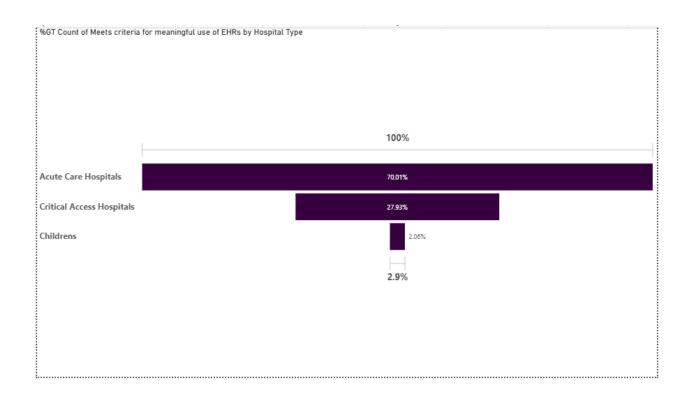
Mortality Rates: Most cities have mortality rates that match the national average, with fewer cities reporting mortality rates either above or below the national average.

#### **Hospital Types Meeting EHR Criteria:**

- Acute Care Hospitals make up the largest portion of hospitals meeting EHR criteria, followed by Critical Access Hospitals.
- ➤ Children's Hospitals make up a small fraction of hospitals meeting EHR criteria, likely due to the specialized nature of their services.

Emergency Services Adoption of EHR: A significant number of emergency service hospitals (4,497) meet EHR criteria, indicating that emergency care facilities are adopting electronic health records on a broad scale.

These visuals provide insights into how hospitals are performing in terms of mortality rates and adoption of EHR systems, helping to understand the quality of healthcare data management and patient outcomes across the country.



#### **Interpretation of the Funnel Chart:**

This Funnel Chart represents the percentage of hospitals that meet the criteria for meaningful use of Electronic Health Records (EHRs), segmented by hospital type. The funnel chart narrows down as it shows each hospital type's proportion of the total hospitals meeting EHR criteria.

## **Key Findings:**

#### **Acute Care Hospitals: 70.01%:**

Acute Care Hospitals make up the largest proportion of hospitals meeting EHR criteria. 70.01% of the hospitals meeting the EHR criteria fall under this category.

This suggests that Acute Care Hospitals are the dominant group in adopting EHRs, which is consistent with their broad range of operations and larger patient volumes.

#### **Critical Access Hospitals: 27.93%:**

- ➤ Critical Access Hospitals account for 27.93% of hospitals meeting the EHR criteria. While this is significantly smaller than Acute Care Hospitals, it still represents a substantial share.
- ➤ These hospitals are typically located in rural areas, and this adoption indicates that Critical Access Hospitals are increasingly investing in EHR systems to improve healthcare delivery in underserved areas.

#### Children's Hospitals: 2.06%:

- ➤ Children's Hospitals represent only 2.06% of the hospitals meeting EHR criteria, which is the smallest group in this chart.
- This suggests that Children's Hospitals are fewer in number, and may be specialized, leading to a smaller proportion of EHR adoption compared to Acute Care or Critical Access Hospitals.

## **Total Percentage (100%):**

> The chart's total represents 100% of hospitals meeting the EHR criteria, with each hospital contributing its respective share.

#### **Interpretation of Funnel Behavior:**

- > The wider bar at the top represents Acute Care Hospitals, the largest group in terms of EHR adoption.
- The narrowing of the funnel as we move down to Critical Access Hospitals and Children's Hospitals shows that fewer hospitals in these categories are adopting EHR systems, with Children's Hospitals having the smallest proportion.

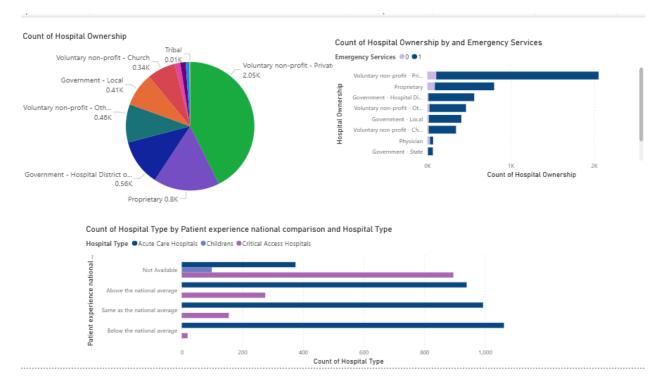
This narrowing effect emphasizes how the adoption of EHRs is most widespread in Acute Care Hospitals and more limited in Critical Access Hospitals and Children's Hospitals.

## **Key Insight:**

Acute Care Hospitals are the primary drivers of EHR adoption, making up 70.01% of the hospitals meeting the criteria, while Critical Access Hospitals and Children's Hospitals have much smaller shares, highlighting the differences in EHR adoption across various types of hospitals.

#### **Conclusion:**

The funnel chart clearly demonstrates the concentration of EHR adoption in Acute Care Hospitals, with a significant decline in the share of hospitals adopting EHRs as we move to Critical Access and Children's Hospitals.



#### **Interpretation of Visuals:**

## 1. Count of Hospital Ownership (Top-left Pie Chart):

## **Key Findings:**

The pie chart shows the distribution of hospitals by their ownership type:

- ➤ Voluntary non-profit Private makes up the largest portion of hospitals, representing 2.05K hospitals.
- ➤ Government Hospital District or Authority accounts for 0.56K hospitals.
- ➤ Government Local and Government State ownership types are represented by 0.41K and 0.46K hospitals, respectively.
- ➤ Proprietary ownership type represents 0.8K hospitals.
- ➤ Smaller categories include Voluntary non-profit Church (0.1K), Tribal (0.34K), Voluntary non-profit Other (0.46K), and Physician-owned (smaller proportion).

#### **Interpretation:**

- The largest proportion of hospitals are Voluntary non-profit Private, followed by various Government-owned hospitals and Proprietary hospitals.
- ➤ The Tribal and Voluntary non-profit Church hospitals have smaller representations, indicating that these ownership categories are less prevalent in the dataset.

## 2. Count of Hospital Ownership by Emergency Services (Top-right Bar Chart):

#### **Key Findings**:

The chart displays the number of hospitals by ownership type that provide Emergency Services (denoted by blue).

- ➤ Voluntary non-profit Private has the largest number of hospitals providing Emergency Services.
- Proprietary and Government Hospital District or Authority also show significant numbers of hospitals offering Emergency Services.
- Smaller numbers of Emergency Services are provided by Voluntary non-profit
  Church and Government Local hospitals.

#### **Interpretation**:

- ➤ Voluntary non-profit Private hospitals contribute the most to Emergency Services hospitals, followed by Proprietary hospitals and Government-owned hospitals.
- ➤ This indicates that a large proportion of hospitals, especially Voluntary non-profit Private hospitals, are offering Emergency Services, while other ownership types provide fewer emergency services.

# 3. Count of Hospital Type by Patient Experience National Comparison and Hospital Type (Bottom Chart):

#### **Key Findings:**

This chart shows the distribution of hospital types based on Patient Experience national comparison:

- Acute Care Hospitals make up the majority, with a significant portion falling under "Same as the national average" and "Below the national average".
- ➤ Critical Access Hospitals are represented in smaller quantities, with most hospitals also being in the "Same as the national average" category.
- ➤ Children's Hospitals are mostly in the "Not Available" category for Patient Experience data.
- The chart shows that Acute Care Hospitals have the largest counts for "Same as the national average" and "Below the national average", suggesting a higher number of Acute Care hospitals with available patient experience data.

#### **Interpretation:**

- Acute Care Hospitals dominate in Patient Experience data, with a larger proportion showing "Same as the national average".
- ➤ Critical Access Hospitals have fewer entries but still show a noticeable number of hospitals that are "Same as the national average".
- Children's Hospitals have limited or missing data, as reflected by the "Not Available" category.

## **Key Insights:**

#### 1. Hospital Ownership:

- ➤ The largest group of hospitals in the dataset are Voluntary non-profit Private hospitals, followed by various Government-owned hospitals.
- ➤ Proprietary hospitals also make up a significant portion, suggesting that private ownership dominates the dataset.

## 2. Emergency Services:

- A large portion of hospitals in the Voluntary non-profit Private category offer Emergency Services, followed by Proprietary and Government-owned hospitals.
- ➤ The data suggests that Voluntary non-profit Private hospitals play a significant role in providing Emergency Services.

#### 3. Patient Experience Comparison:

- Acute Care Hospitals have a high count of hospitals showing "Same as the national average" for Patient Experience, while Critical Access Hospitals are smaller in number but also show a similar trend.
- ➤ Children's Hospitals have many missing values for Patient Experience, indicating that data might not be available or reported in this category.

#### **Conclusion:**

- > The dataset shows that Voluntary non-profit Private hospitals are dominant in terms of both hospital ownership and Emergency Services provision.
- > Acute Care Hospitals have a significant presence in Patient Experience data, with many hospitals showing average national performance.
- ➤ Children's Hospitals are underrepresented in both Patient Experience data and Emergency Services, which suggests a need for more data or fewer hospitals in this category in the dataset.

#### **Overall Conclusion:**

Based on the analysis of the visualizations provided, the following key conclusions can be drawn:

#### **Hospital Ownership Distribution:**

- ➤ The dataset reveals the dominance of Voluntary non-profit Private hospitals, making up the largest portion of hospital ownership types. These hospitals are likely to be widely distributed and play a significant role in providing healthcare services.
- Sovernment-owned hospitals, particularly Hospital District or Authority and Local Government hospitals, also represent a substantial portion of the dataset, indicating strong public healthcare infrastructure.
- ➤ Proprietary hospitals make up a smaller yet notable portion, suggesting a private sector contribution to the overall healthcare system.

#### **Emergency Services:**

- ➤ A significant number of hospitals, especially those owned by Voluntary non-profit Private entities, offer Emergency Services. This highlights the important role of private, non-profit hospitals in providing critical care.
- ➤ Proprietary and Government-owned hospitals also contribute to emergency services, but at a lower scale compared to Voluntary non-profit Private hospitals.

#### **Patient Experience National Comparison:**

Acute Care Hospitals have the largest number of hospitals represented in Patient Experience data, with many hospitals showing performance that is similar to the national average. However, a notable portion of Acute Care Hospitals still report below the national average performance, suggesting room for improvement in patient satisfaction and care quality.

- ➤ Critical Access Hospitals, while fewer in number, show a similar trend with most hospitals aligning with the national average for Patient Experience.
- ➤ Children's Hospitals show a limited number of entries for Patient Experience data, which could indicate either a lack of reporting or fewer hospitals in this category, making it harder to draw definitive conclusions.

## **Key Takeaways:**

- Voluntary non-profit Private hospitals are the primary contributors to both Emergency Services and overall hospital ownership, underscoring their importance in the healthcare system.
- Acute Care Hospitals are well-represented in Patient Experience data, with a large portion of hospitals performing at national average levels.
- There is an uneven distribution of Emergency Services across hospital types, with Voluntary non-profit Private hospitals having the most significant share.
- Children's Hospitals are underrepresented in terms of Emergency Services and Patient Experience data, possibly due to fewer hospitals in this category or lack of available data.

#### **Conclusion:**

This analysis provides an overview of hospital ownership, services, and performance across different types of hospitals. It highlights the dominant role of private, non-profit hospitals in providing Emergency Services, while also identifying areas for improvement in patient experience across Acute Care Hospitals. Further data and analysis could help improve our understanding of Children's Hospitals and their performance in relation to the broader healthcare system.

# References

Hospitals General Information. (n.d.). Retrieved from Kaggle: https://www.kaggle.com/datasets/cms/hospital-general-information