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DATA VISUALISATION OF EMERGENCY HOSPITALS OPERATIONAL AROUND THE CLOCK IN ANDHRA PRADESH

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Abstract: This document explores the availability and distribution of 24/7 emergency hospitals in Andhra Pradesh using Tableau Software. Access to round-the-clock medical care is essential for addressing health emergencies. The study aims to highlight the significance of readily accessible emergency hospitals in mitigating severe health outcomes associated with addiction-related incidents. Through data visualization, this research provides insights into the geographic distribution and accessibility of emergency medical services across Andhra Pradesh, ultimately contributing to improved healthcare delivery and outcomes for the population.

IndexTerms – Data Visualisation, Operational, Emergency, Healthcare

I. INTRODUCTION

In recent times, the need for healthcare facilities has become increasingly evident, especially in the wake of global health crises. In response to this demand, we have developed a comprehensive visualization tool utilizing Tableau to provide real-time insights into the availability of hospitals in Andhra Pradesh, district-wise. This report aims to elucidate the significance of such a system and its potential impact on public health management. Our goal is to help people easily find hospitals whenever they need them. This is important because everyone should have access to medical help whenever they need it. By using Tableau, we can make maps that show where these hospitals are in each district of Andhra Pradesh.

II. HOW IT WORKS

Acquiring Hospital Information: Initially, we gather comprehensive details about all hospitals located in Andhra Pradesh, including their geographical locations and the range of services they provide.

Generating Visuals with Tableau: Subsequently, we utilize Tableau to create interactive dashboards, presenting visual representations of 24/7 hospitals on a map. Users can interact with these dashboards by clicking on various elements to access additional information.

Mapping Hospital Locations: We plot the hospitals on a map, enabling users to discern their distribution across different districts. This visualization aids in identifying regions with abundant hospital facilities and those requiring additional resources.

User-Friendly Interface: Our system is designed to be user-friendly across various devices such as computers, tablets, and smartphones. Navigating through the information is intuitive; users can easily access relevant details with a simple click.

Maintaining Data Accuracy: We diligently update the information on a regular basis to ensure its accuracy and reliability. This commitment ensures that users always have access to current data regarding hospital locations and operating hours.

III. TECHNOLOGIES USED

1. Microsoft Excel: A versatile spreadsheet program used for data analysis, management, finance, complex calculations, and statistical analysis. It offers features such as pivot tables, graph tools, and macro programming.

2. Tableau Software: A robust data visualization tool employed in the Business Intelligence sector. It enables exploration of Excel data through intuitive drag-and-drop functionalities, presenting data in graphs, pie charts, maps, and other easily understandable formats.

3. Files: Tableau outputs can be saved in various formats including bookmarks (.twb), workbooks (.tbm), data extracts (.tde), and packaged data sources (.tds). These files are stored in associated folders within the My Tableau Repository directory.

4. Dashboard: A consolidated display of worksheets and related information, facilitating comparison, monitoring, and simultaneous visualization of diverse data. Dashboards allow integration of views from any worksheet along with supporting elements like text areas, web pages, and images.

5. Maps: Geographical data is necessary for plotting information on maps. To create a map, the data source must include location names along with latitude and longitude coordinates.

6. Server: Tableau Server serves as a platform for sharing worksheets created in Tableau Desktop. Uploaded worksheets are accessible only to authorized users.

IV.RESULTS

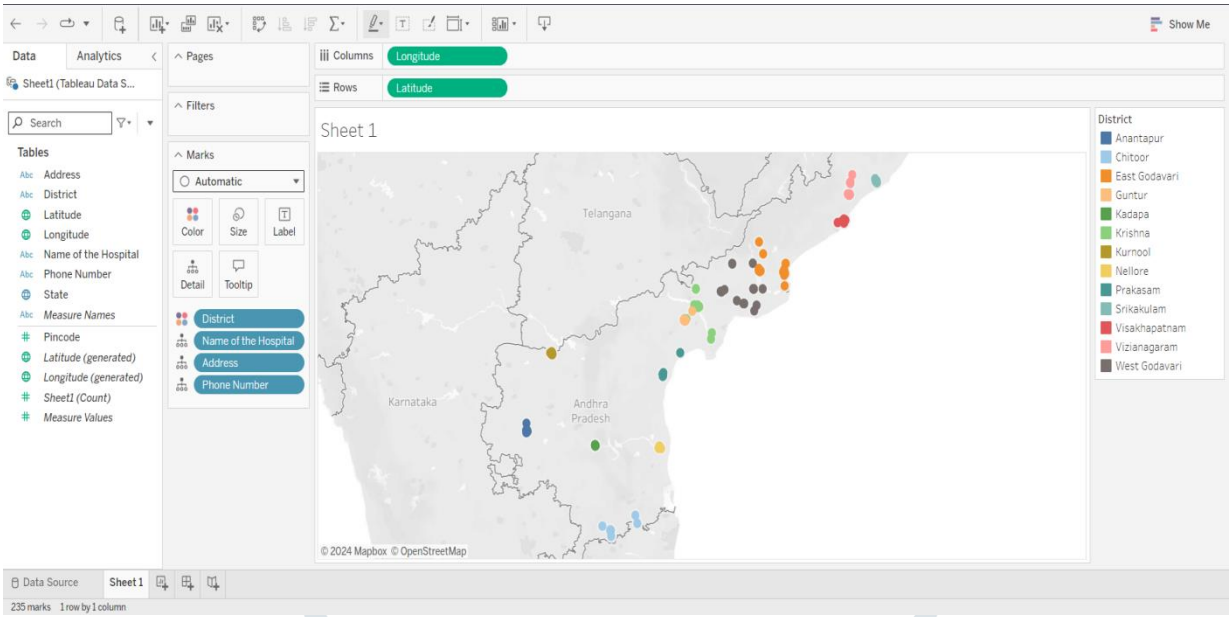

Figure 1.1

The distribution of 24/7 emergency hospitals across Andhra Pradesh.

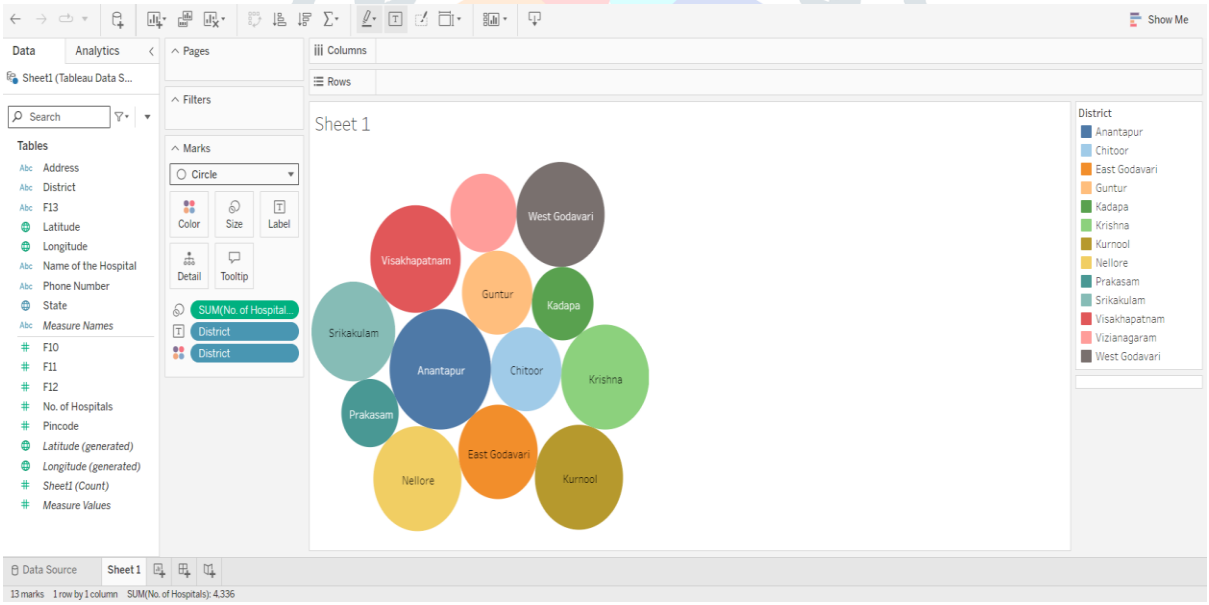

Figure 1.2

A bubble chart indicating the distribution of 24/7 hospitals across various districts, highlighting the district with the highest count.

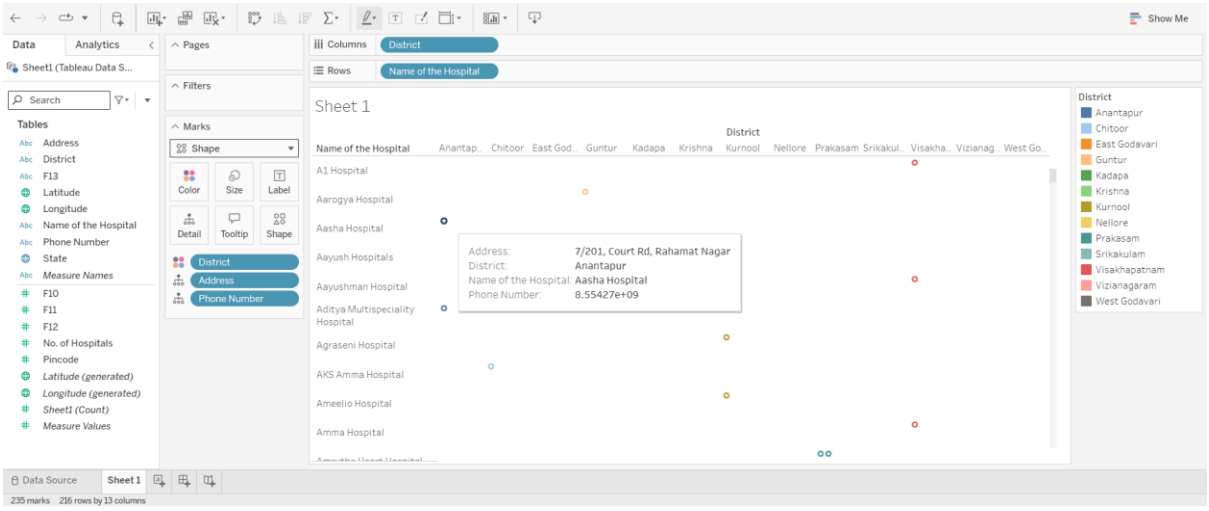

Figure 1.3

A circle view illustrating the details of each hospital, organized by districts.

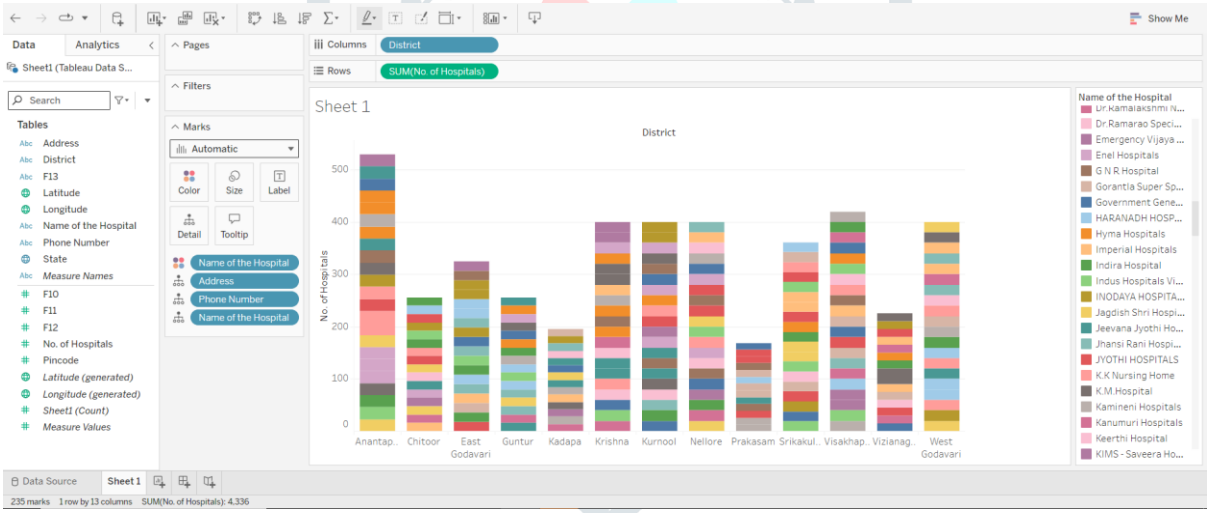

Figure 1.4

Number of hospitals for each district, with individual hospital details appearing upon hovering over the corresponding blocks.

V. Conclusion

Having analysed the data on 24/7 available hospitals in Andhra Pradesh, visualizing their locations aids governments in strategically planning emergency response efforts. By identifying areas with insufficient coverage, resources can be allocated accordingly to ensure prompt medical assistance during crises. Additionally, during natural disasters or public health emergencies, this visualization facilitates quick identification of nearby medical facilities, assessment of their capacity, and efficient coordination of patient transfers as needed.

Individuals can use data visualizations of 24/7 hospitals to locate nearby healthcare facilities and access medical services more efficiently, especially during emergencies or urgent situations.

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