Hospital Capacity Analysis For COVID 19

<u>View in Power BI</u>

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Project and Data Description

• This project aims to analyze hospital capacity in united states when the coronavirus patients reach 20% of the population by state.

 Health Systems Researchers at Harvard Global Health Institute (http://globalhealth.harvard.edu/) have built a model on bed capacity and offers localized estimate of beds that would be needed in the coming months

The model assesses hospital capacity over six, twelve, and eighteen months, if 20%, 40%, or 60% of the population contracts COVID-19.

For more information on methodology and how rates are calculated, see: https://globalepidemics.org/our-data-guide/

Breakdown of Visuals

- Story 1: Shows Hospital Beds with respect to Available adult and 65+ population
- Story 2: Hospital Bed Capacity Analysis when 20 percent of the population, which seems plausible in the near future get affected.
- Story 3: Hospital and ICU Availability Analysis under high impacted states from Story 2.
- Story 4: Hospital Search in Each State to manage availability

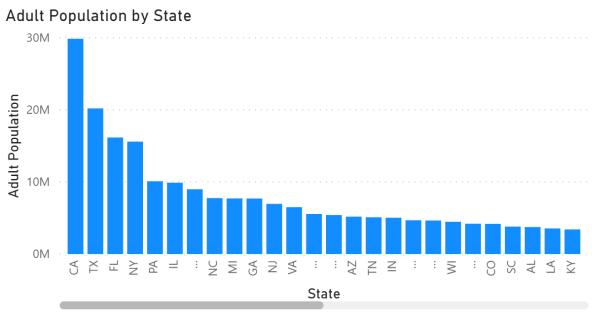
Hospital Beds and Population by State

Total Hospital Beds by State

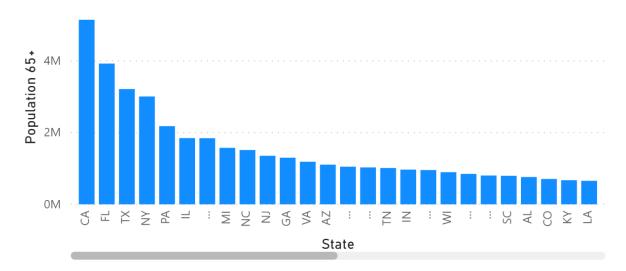




We can see the direct correlation of hospital beds by the population







Hospital Bed Analysis when 20% of the Population are infected by covid 19 by state



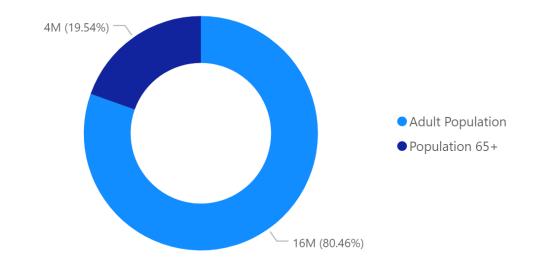
3M

Projected Infected Individuals

152K

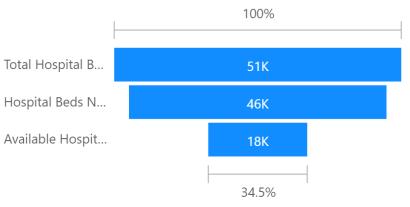
Projected Individuals Needing ICU Care

Adult Population and Population 65+

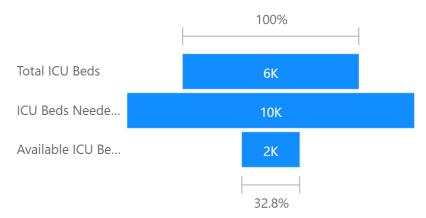


Hospital and ICU Beds Needed in 6 Months

Total Hospital Beds, Hospital Beds Needed, Six Months and Available Hospital Beds



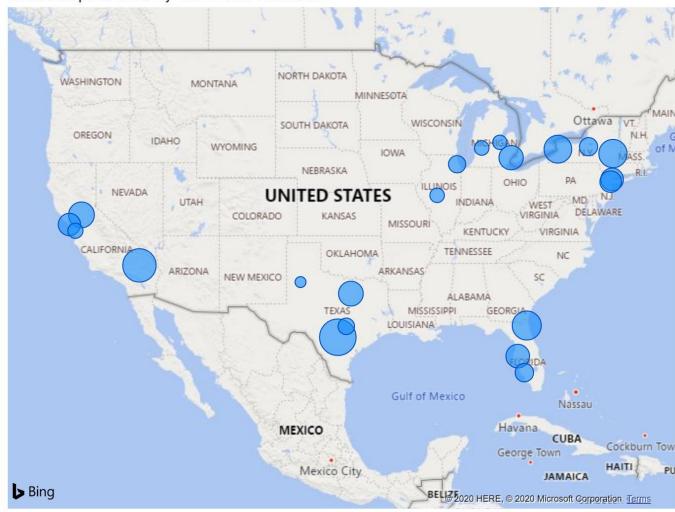
Total ICU Beds, ICU Beds Needed, Six Months and Available ICU Beds



A much larger 65+ population should create an urgency for more ICU beds in a state

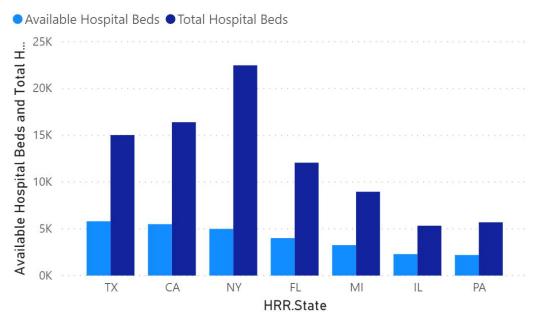
Hospital Availability Analysis in cities under high impacted states

Total Hospital Beds by HRR.1 and HRR.State



Map Showing **Total** Hospital beds by city in states

Available Hospital Beds and Total Hospital Beds by HRR.State



Total vs Available hospitals in high impacted states

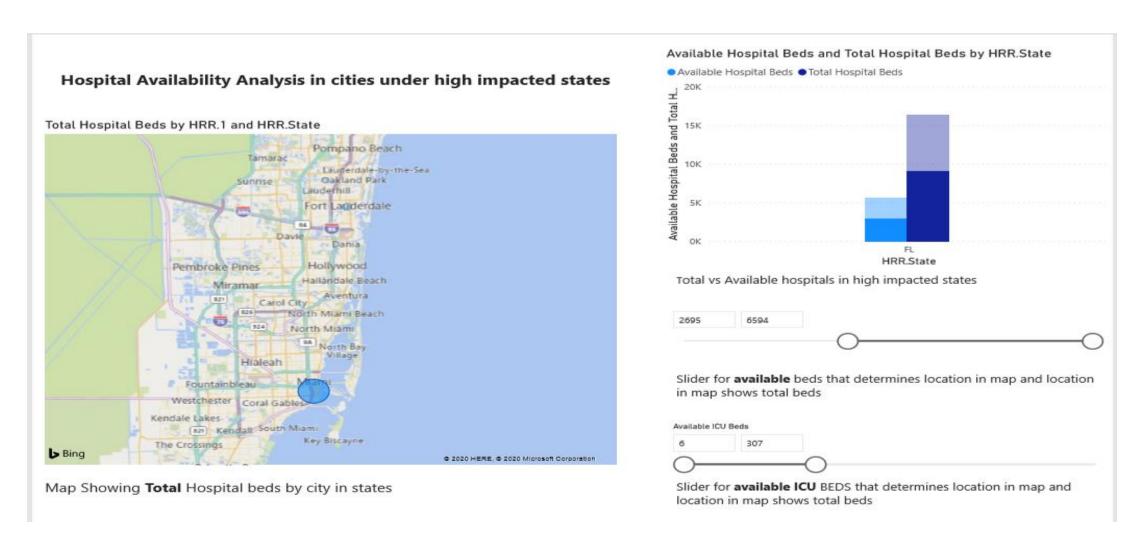


Slider for **available** beds that determines location in map and location in map shows total beds



Slider for **available ICU** BEDS that determines location in map and location in map shows total beds

A Story and inference



Insights

As we have seen, Florida has highest number of Adult to 65+ ratio

For this much larger population of 65+, there are very meager number of ICU's

In the above visual we can see that Miami has a highest number of beds in florida and at the the same time lowest number of ICU's

Next slide shows story on top of it to explore each hospitals in a state and then to continue to the story

Hospital Search in Each State to manage availability

BEDS BEDS. POPULATION. First OWNER. First NAME and First WEBSITE 820 1592 BEDS by OWNER by HELIPAD, LATITUDE and LONGITUDE **HELIPAD** ON OY STATE 50K Hudson Bay CANADA ☐ CA CITY ☐ CT 40K ANN ARBOR ☐ DC ATASCADERO ☐ DE ATLANTA BEDS ☐ FL 30K BALTIMORE □ GA **BATON ROUGE** □ IA **BIRMINGHAM** 20K **BOSTON** UNITED STAT CANTON ☐ LA CHAPEL HILL 10K ■ MA CHARLOTTE ☐ MD Sargasso Sea ☐ CHATTAHOOCHEE ☐ MI ☐ CHICAGO GOVERNMENT DISTRICT/AUTHO... 0K GOVERNMENT LOCAL NOT AVAILABLE ☐ MN Mexico CLEVEL AND MEXICO ☐ MO ☐ MS ☐ NC GUATEMALA NICARAGUA ☐ NY COUNTY ☐ OH VENEZUELA GUYANA □ OK All ☐ PA **OWNER Bing** ☐ SC © 2020 HERE © 2020 Microsoft Corporation Terms TAL

Selected Filters can show hospital ownership in that state, city or county

The Map contains the details of hospitals in selected state, city or county along with helipad information to transfer urgent care patients. The Map can be used to have a detailed information from previous report or can be used for general information.

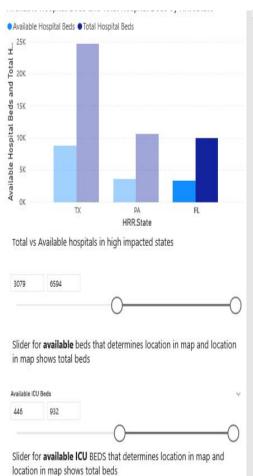
A story and inference... Contd..

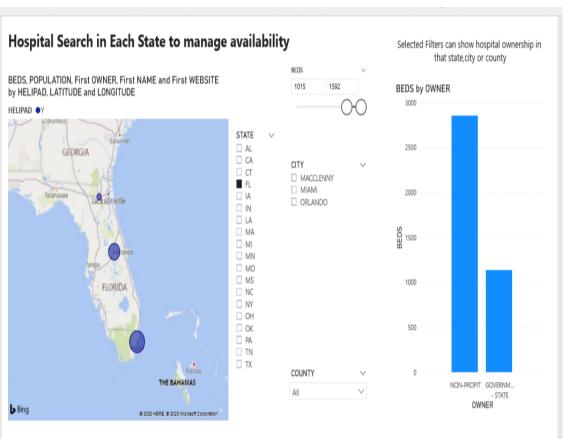
Hospital Availability Analysis in cities under high impacted states

Total Hospital Beds by HRR.1 and HRR.State



Map Showing Total Hospital beds by city in states





The Map contains the details of hospitals in selected state, city or county along with helipad information to transfer urgent care patients

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Conclusion

- As it can be seen, Orlando has high number of ICU beds including total beds.
- On Situation getting worse, People needing ICU Care can be taken to Orlando's hospital from Jackson's memorial Hospital in Miami via the air route as both hospitals have helipads.

• The above visuals can be used for analysis of other states or general purpose information. Moreover, other types of analysis can be done.