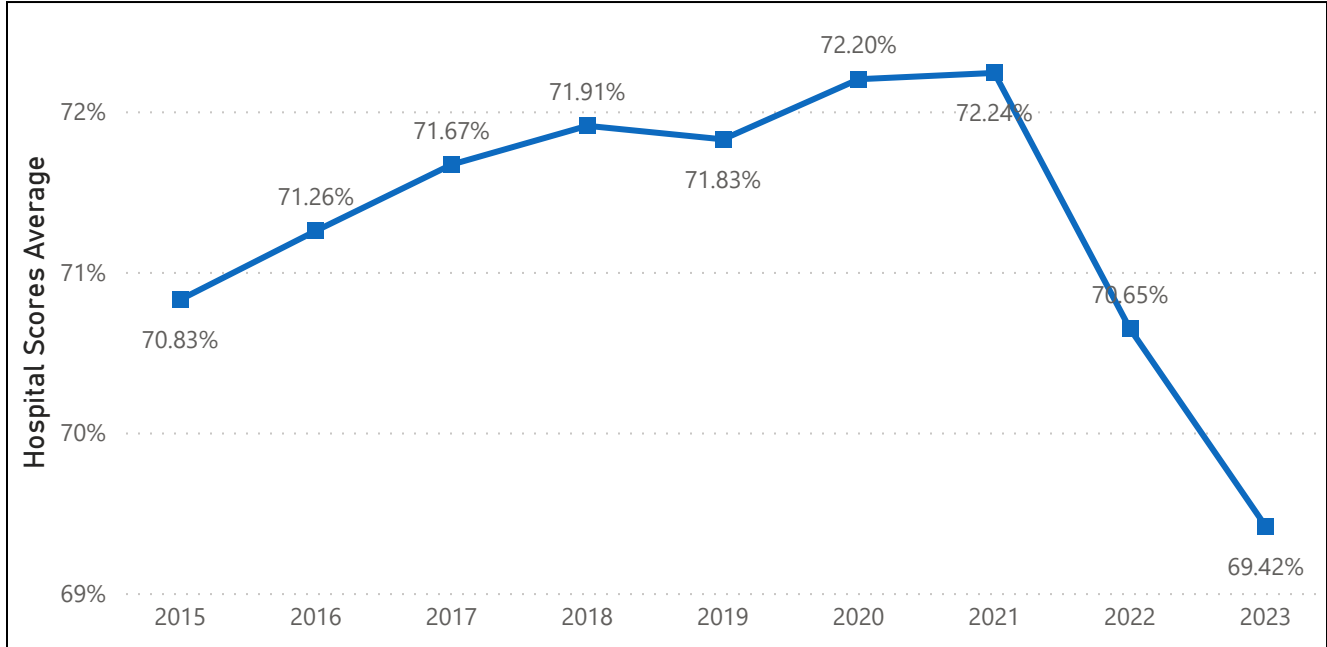


Maven Analytics Challenge

HCAHPS Patients Survey



01/07/2015 01/07/2023

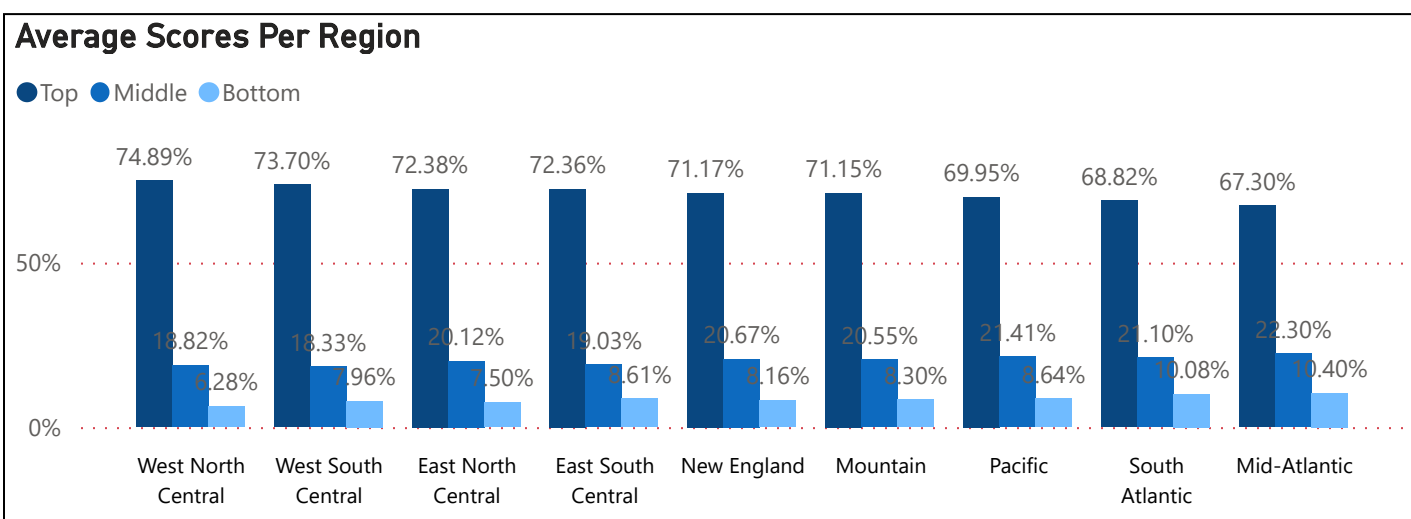
The **hospital scores trend down**, resulting in a **1.99%** decrease between July 2015 and July 2023.

The score started trending down on Monday, July 1, 2019, **falling by 3.36% (2.41)** in 4 years.

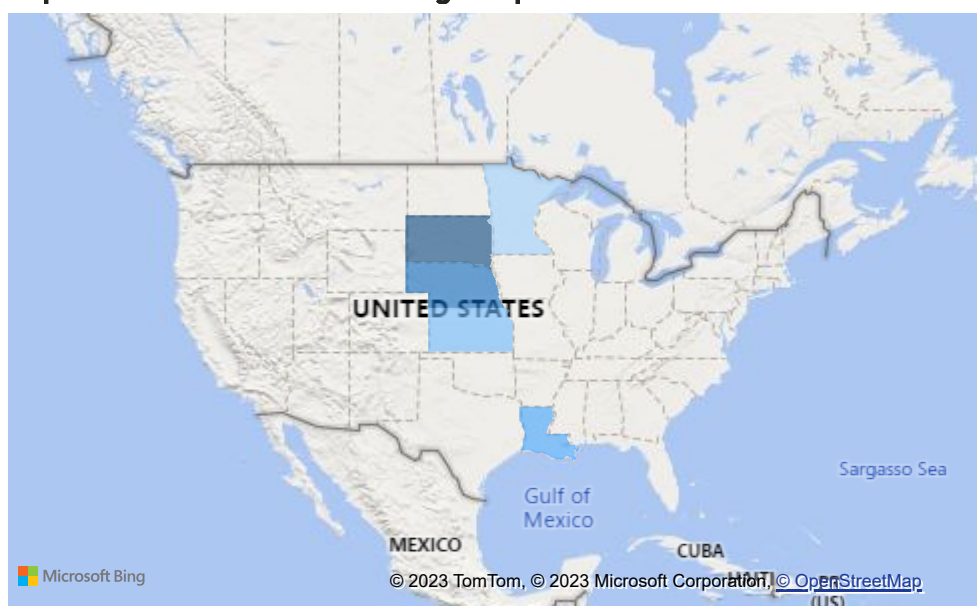
Hospital scores dropped from 71.83% to 69.42% during its steepest decline between 2019 and 2023.

At **74.89%**, **West North Central** had the highest Top and was 11.29% higher than **Mid-Atlantic**, which had the lowest Top at **67.30%**.

Across all 9 Region, Top ranged from 67.30% to 74.89%, Middle ranged from 18.33% to 22.30%, and Bottom ranged from 6.28% to 10.40%.



Top 5 States Based on Average Top Score



Hospital score was highest for **South Dakota** at **76.81%**, followed by Nebraska and Louisiana.

Overall 71.33% values fall in top score, 20.27% falls in middle and 8.39% falls in bottom categories.

Top Scores for Each Measure Type

Individual Item	67.86%
Global Item	71.56%
Composite Measure	72.41%

Among measures types, **Composite Measures** holds highest value.

Top 3 measures where hospitals made more progress across release period are **Discharge Information**, **Communication with Doctors** and **Communication with Nurses**.

Discharge Information has highest value of **86.98%** in year 2019 which declined to 85.67% by the year 2023. to 2023.

Measures where hospitals did not make much progress are **Care Transition**, **Quietness of Hospital Environment** and **Communication about Medicines**.

Care Transition has lowest value of 51.04% in year 2023 which is the minimum value for this measure during release period.

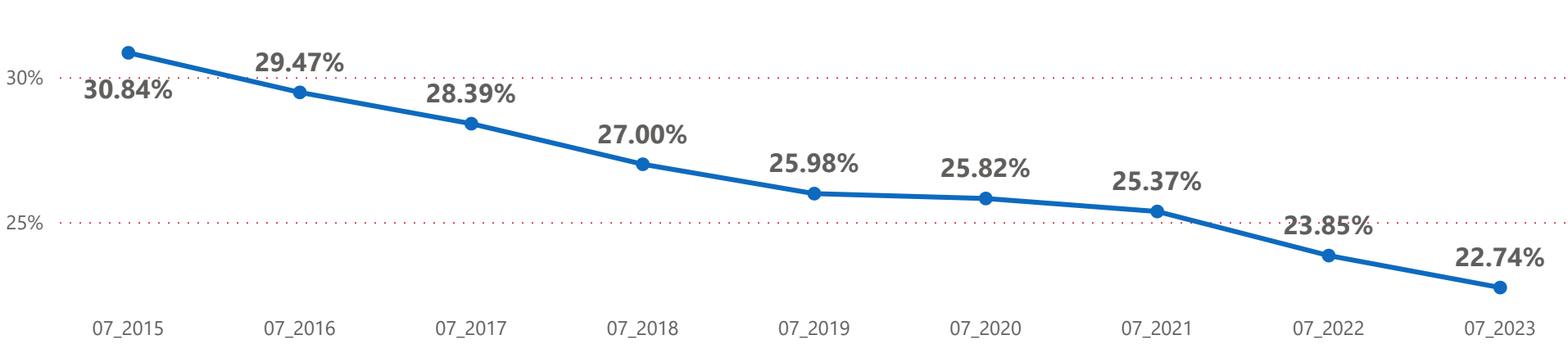
5 Most Effective Top Scores Measures

Release Period	Cleanliness of Hospital Environment	Communication with Doctors	Communication with Nurses	Discharge Information	Overall Hospital Rating
2015	73.57%	81.67%	79.25%	86.22%	70.45%
2016	73.60%	81.88%	79.78%	86.78%	71.36%
2017	74.35%	81.96%	80.27%	87.35%	72.20%
2018	74.88%	81.82%	80.43%	87.29%	72.71%
2019	75.24%	81.31%	80.45%	86.98%	72.35%
2020	75.69%	81.69%	81.00%	87.02%	72.69%
2021	75.61%	81.86%	81.10%	87.08%	72.82%
2022	72.71%	80.53%	79.98%	86.43%	71.86%
2023	71.73%	79.67%	79.00%	85.67%	70.06%

5 Least Effective Top Scores Measures

Release Period	Care Transition	Communication about Medicines	Quietness of Hospital Environment	Responsiveness of Hospital Staff	Willingness to Recommend the Hospital
2015	52.02%	64.92%	61.16%	68.08%	70.94%
2016	52.38%	64.84%	61.78%	68.84%	71.32%
2017	52.45%	65.41%	62.02%	68.92%	71.75%
2018	52.90%	65.69%	61.61%	69.65%	72.12%
2019	53.29%	65.86%	61.12%	70.06%	71.59%
2020	53.75%	66.12%	61.65%	70.33%	72.08%
2021	53.84%	66.10%	61.65%	70.37%	71.96%
2022	52.14%	63.02%	62.02%	66.92%	70.84%
2023	51.04%	61.49%	61.08%	65.45%	68.98%

Average of Response Rate (%) by Release Period



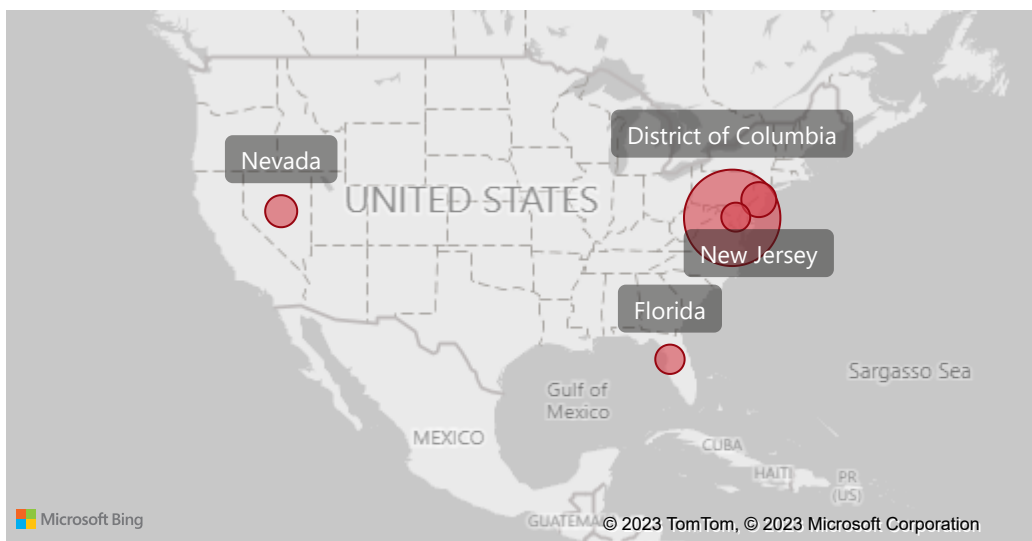
26.61%

Average of Response Rate (%)

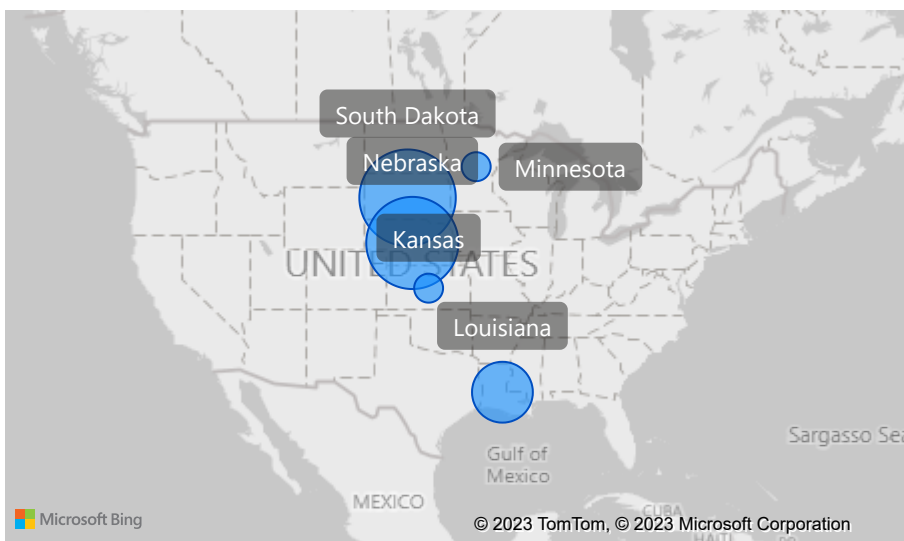
22.31M

SurveysWithNumData

States With Least Satisfied Patients



States With Satisfied Patients



Completed Surveys with Labels

852

Less Than 50

612

Less Than 100

2771

300 or more

777

Between 100 & 299

State Name	Average Response Rate(%)
Nebraska	36.30%
Wisconsin	35.12%
Minnesota	34.47%
Iowa	33.66%
North Dakota	33.58%
South Dakota	33.20%
Kansas	32.84%
Pennsylvania	31.59%
Idaho	31.01%
Montana	30.86%

The average response rate has declined over the years, The year 2015 has the highest response rate with value of 30.84%, which is 35.59% higher than response rate in year 2023.

Nebraska has highest response rate with value of 36.30%, followed by Wisconsin and Minnesota with 35.12% & 34.47% response rate respectively.

South Dakota state is observed with **most satisfied patients** with score of **76.81%** followed by **Nebraska** with score of **76.72%**,

District of Columbia has **least satisfied patients**.

Measures With Major Improvement Opportunity for Given Regions

Region	Care Transition	Communication with Doctors	Communication with Nurses	Overall Hospital Rating	Willingness to Recommend the Hospital
East North Central	4.67%	4.07%	3.44%	6.80%	4.38%
East South Central	5.36%	4.17%	4.89%	8.11%	5.67%
Mid-Atlantic	6.15%	5.52%	5.19%	9.85%	6.59%
Mountain	5.60%	4.78%	4.29%	7.86%	5.11%
New England	4.74%	4.39%	3.70%	7.33%	4.65%
Pacific	5.51%	4.80%	4.47%	7.89%	5.07%
South Atlantic	6.30%	5.33%	5.65%	9.57%	6.55%
West North Central	3.67%	3.16%	2.75%	5.63%	3.14%
West South Central	5.22%	4.06%	4.22%	7.25%	4.94%

Recommendations:

- Optimum patients satisfaction can be achieved by improving the measures that fall in bottom of Top scores as they require little more improvement for better results.
- States with lowest scores must get guidance from states with highest scores.
- Efforts need to be made to increase over all response rate in order to get better understanding of patient's needs.
- Measures with major improvement opportunities must also be worked upon to facilitate patients like improving Communication with Nurses etc.