Distribution of Certified Bariatric Surgery Centers in the United States: Are We Meeting the Needs of the People?

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Introduction

Obesity rates continues to rise, exceeding 20% in all states.

- $147 billion per year in direct medical costs.
- Fails to include lost productivity and disability due to secondary diseases.
- Poor evaluation of cost due to social stigmatization, difficulty accessing public spaces, and disparities in healthcare quality.

Surgery remains a durable option for sustainable weight loss.

- State-level variability in obesity rates.
- State-level variability in MBSAQIP certified bariatric surgical centers.

We hypothesize that the geographic availability of surgical centers may not be meeting the needs of the population.

Methodology

Using obesity prevalence and number of adults per state, calculate **number of obese individuals per state**

Using MBSAQIP, identify the **certified adult centers,** medically accredited, and ambulatory centers **per state**

Calculate certified **centers per 100,000 obese individuals**

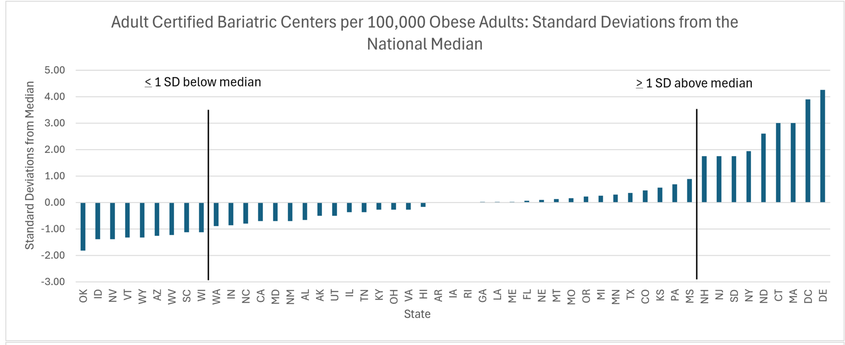
Calculate **national mean center density** and **each state's standard deviations from the mean**

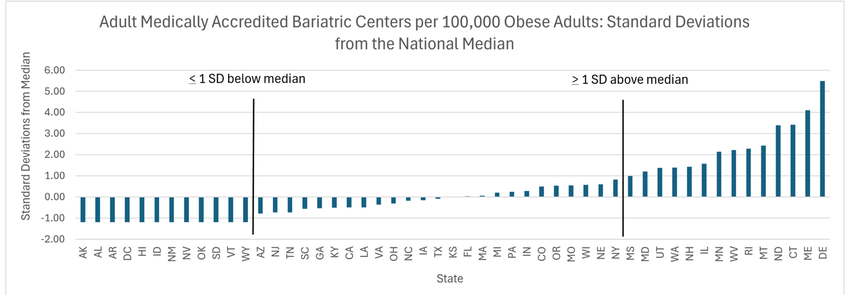
Results

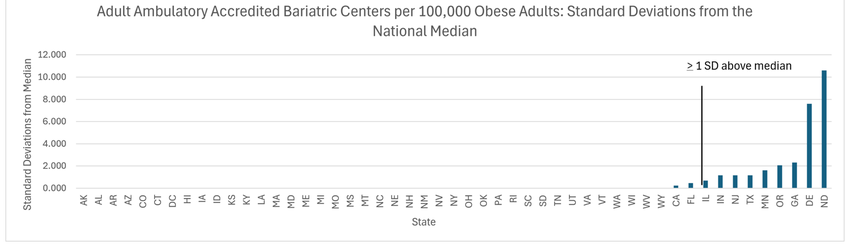
Total centers: 932
- Minimum: 1 (VT, WY)
- Maximum: 92 (TX)
- Median (IQR): 12 (4.75-21.5)

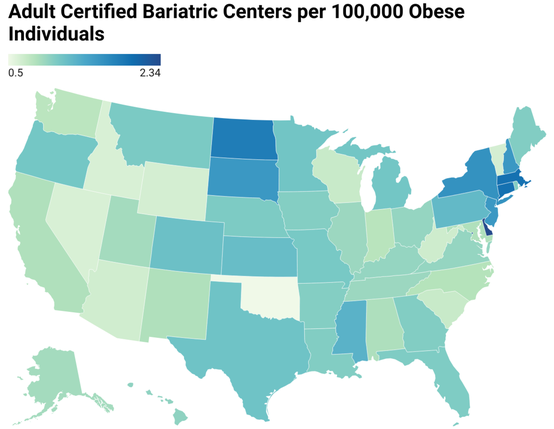
Centers per 100,000 obese individuals:
- Minimum: 0.5 (1.82 SD below median) (OK)
- Maximum: 2.34 (4.26 SD above median) (DE)

Regression analysis between center density SD and state obesity ranking: $R^2 = 0.08$ (p=0.05)









Conclusion

Controlling for variation in state-level obesity, **there is marked variation in availability of certified bariatric centers** throughout the United States.

Regression analysis showed minimal correlation between standard deviations in center density and state obesity ranking.

Future investigation: Is there an ideal center density at which obesity prevalence begins to decline?