BARIATRIC DESERTS: REGIONAL INEQUITY IN NEW YORK STATE METABOLIC SURGERY ACCESS

MD Burstein[1], AA Myneni[2], LM Towle-Miller[3], I Simmonds[2], M Novack[2], J Boccardo[3], K Noyes[2,4], & AB Hoffman[2]

[1]Department of Surgery, University Hospitals, Cleveland, Ohio, USA; [2]Department of Surgery, Jacobs School of Medicine and Biomedical Sciences, University at Buffalo, Buffalo, New York, USA; [3]Department of Biostatistics, School of Public Health and Health Professions, University at Buffalo, Buffalo, New York, USA; [4]Division of Health Services Policy and Practice, Department of Epidemiology and Environmental Health, School of Public Health and Health Professions, University at Buffalo, Buffalo, New York, USA

Introduction

- In New York State (NYS), a mean of 200 active bariatric surgeons practiced each year for a population around 19 million citizens.
- With over 5 million residents affected with obesity, the distribution of these practitioners is of paramount importance to equity in care delivery.

Methods

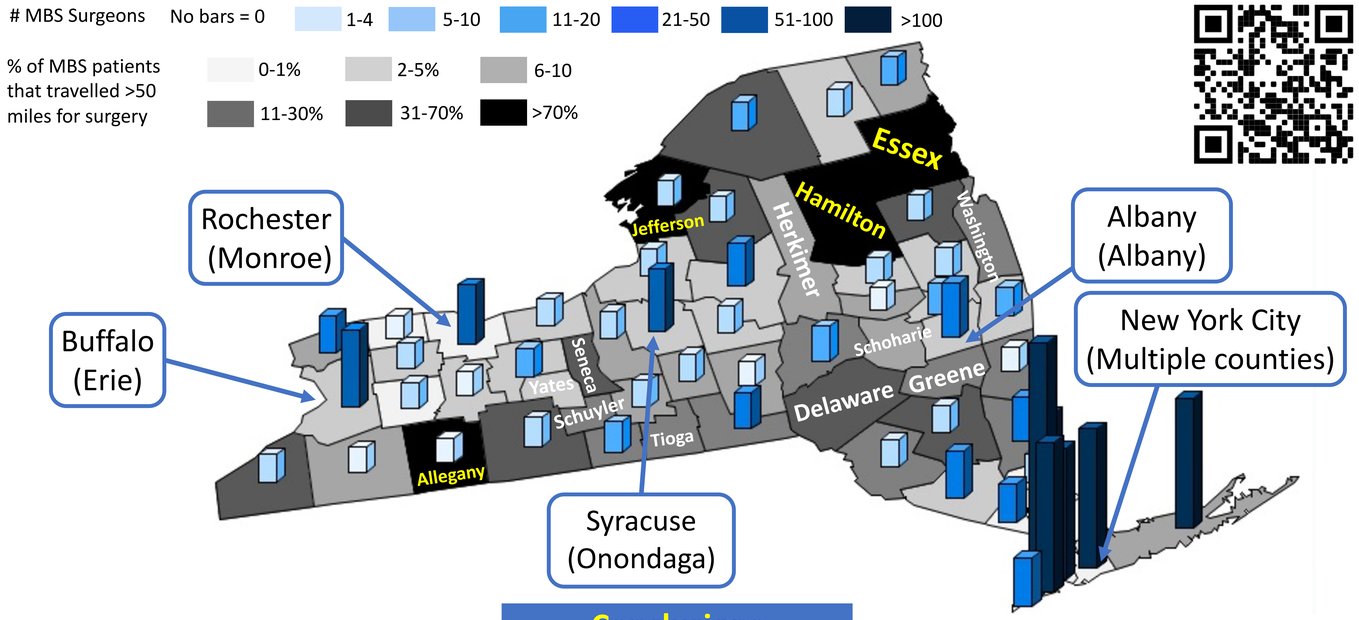
- Using 2006-2019 NYS's Statewide Planning and Research Cooperative System (SPARCS) data, 215,253 patients were identified who received metabolic and bariatric surgery (MBS).
- Patient and surgeon location data was mapped to zip code and county in NYS.
- Patient demographics and comorbid diseases were compared via univariate statistics.
- Healthcare utilization and billing charges in the year before surgery were also analyzed.
- "Bariatric deserts" are defined as underserved areas for bariatric care.

Patient Results

- 5.3% of patients traveled more than 50 miles for MBS ('travelers"), though less African American and minority patients traveled these long distances ($p < 0.01$).
- Comorbidities associated with morbid obesity, such as diabetes and hypertension were more common in the rural populations that traveled ($p < 0.01$).
- Travelers were much more likely to have private insurance ($p < 0.01$) and had marginally decreased (6.5%) hospital charges.
- Overall, only 1% total of the NYS population received bariatric surgery.

Regional Results

- Counties reduced long-distance patients ("travelers") by 0.3% per year ($p = 0.04$).
- The most notable cluster of bariatric surgeons were in New York City and its surrounding boroughs (68% of entire state).
- There were eleven NYS counties with no bariatric surgeons (see counties labeled in white font below), and four counties (black with yellow labels) in NYS where 70% of more of the bariatric care received required 50 miles of travel or more.



Conclusions

- There are discrepancies in rural MBS access, in distribution of bariatric surgeons and travel patterns required of eligible patients, with only marginal improvements during the last 15 years.