



Using ZIP code and population demographics to identify disparities in surgical lymphedema care



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Background

- Despite the policies initiated to improve access to breast reconstruction, its delivery continues to be inequitable, suggesting that barriers to access persist and have not been fully identified or addressed.
- Lymphedema is an unfortunate and not uncommon sequela of breast cancer surgery. In recent years, significant advances have been made in surgical intervention to treat and to prevent lymphedema.

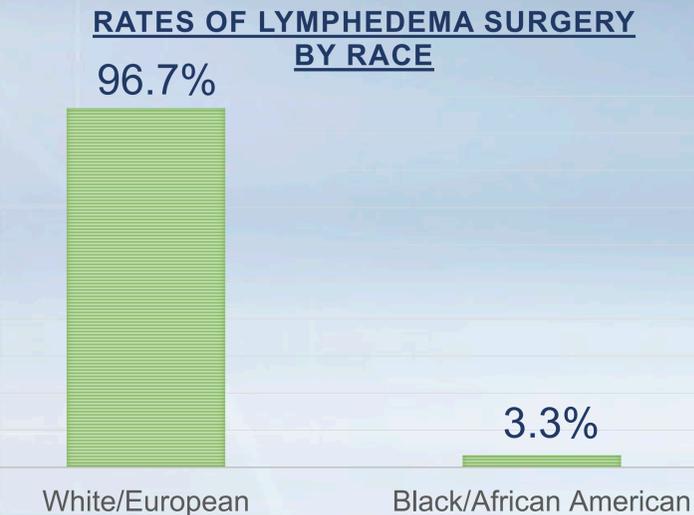
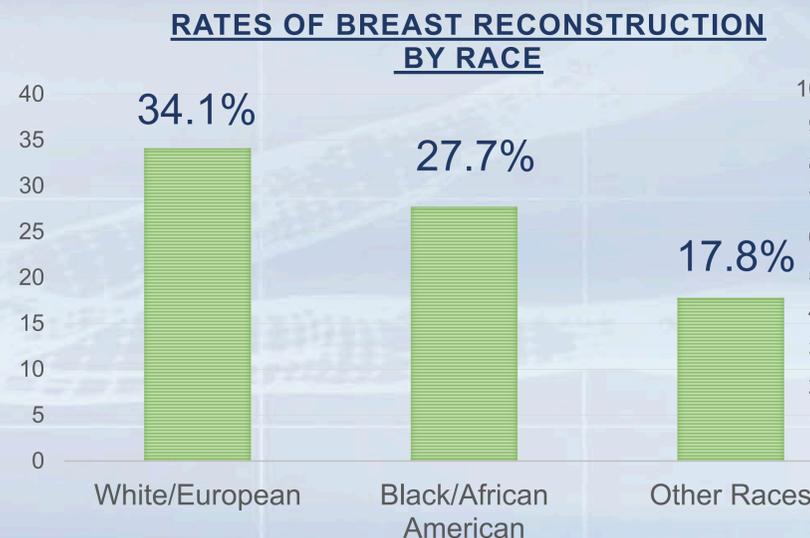
Aim

- 1) To assess the influence of ZIP codes, socioeconomic status, and race on access to lymphedema surgery.

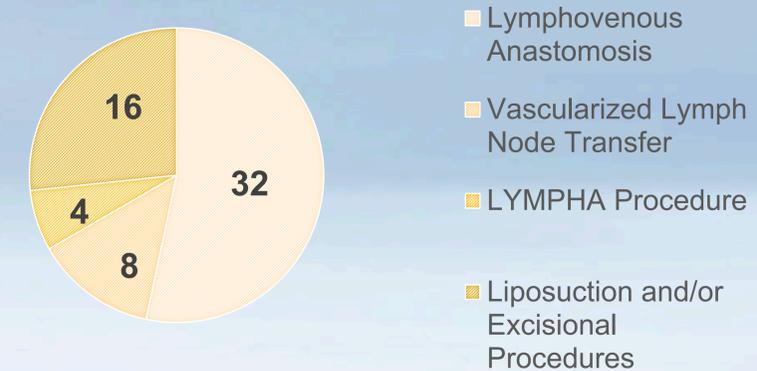
Methods

- Our Institutional Cancer Registry was queried and a list of all patients who underwent lymphedema surgery by the senior author from 2014 to 2019 was obtained.
- A geographical analysis was conducted using demographic characteristics including ZIP codes.
- Quantitative data were analyzed using Chi-square, Student's t-test, Mann Whitney and Kruskal Wallis tests; when appropriate, and a significance was set at $p < 0.05$.

Results



LYMPHEDEMA PROCEDURES



AVERAGE ANNUAL INCOME BY ZIP CODE



- 5,835 patients underwent postmastectomy breast reconstruction at our institution from 2014 to 2021. That group was composed of White or European (34.1%), Black or African American (27.7%), and other races (17.8%).
- Of the 60 patients that underwent lymphedema surgery during this time period, 58 (96.7%) were White non-Hispanic, while only 2 (3.3%) patients were Black or African American.
- Patients who underwent breast reconstruction population lived in ZIP codes with an average median annual household income of \$66,670. Women undergoing prophylactic lymphatic reconstruction (LYMPHA procedure) lived in ZIP codes with average median annual household income of \$75,809.

Conclusion

- While access to lymphedema surgery has been increasing in the United States, **racial and socioeconomic status disparities persist.**
- Increasing culturally concordant educational materials, advocacy, and sociopolitical awareness within our surgical community could bring us closer to providing equity in comprehensive breast cancer treatment.

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