

## Table of Contents

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Bartho, Murray - #5513 - Area Deprivation Index Scores Do Not Predict the Number of Surgeries Prior to Draf III Procedures Among Adults with Chronic Rhinosinusitis .....	1
Abstract submission for Institutional Repository .....	1



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## Area Deprivation Index Scores Do Not Predict the Number of Surgeries Prior to Draf III Procedures Among Adults with Chronic Rhinosinusitis

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### Keywords

chronic rhinosinusitis, socioeconomic status, surgery

### Abstract

#### Background

Patients with chronic rhinosinusitis (CRS) refractory to endoscopic sinus surgery (ESS) may require the Draf III procedures. This study evaluated if socioeconomic status (SES) measured by area deprivation index (ADI) scores is associated with number of surgeries prior to Draf III procedures among patients with CRS.

#### Methods

A retrospective chart review was conducted of adult CRS patients residing in Oregon or Washington who underwent Draf III procedures at Oregon Health & Science University between December 2012 and February 2022. Patient zip codes were used to calculate national and state ADI values. Complete Sino-nasal Outcome Test-22 (SNOT-22) scores were recorded.

#### Results

A total of 115 patients were identified for final analyses. Most patients were male (60.0%) with a mean age at time of Draf III procedure of 55.6 years (range 22-83 years). The mean time between Draf III and last sinus procedure was 6.0 [ $\pm$ 7.5] years. Comparing subjects with  $\leq 2$  previous sinus procedures (n=76) and  $> 2$  previous sinus procedures (n=39), no significant differences were found between mean state (5.6 [ $\pm$  2.6] vs 5.3 [ $\pm$  2.7]; p=0.53) or national (35.8 [ $\pm$  18.5] vs. 33.2 [ $\pm$  18.6]; p=0.47) ADI values. No statistically significant differences in mean number of previous ESS between state and national ADI categories

were found ( $p > 0.05$ ). There were no differences in mean SNOT-22 scores between state ( $p = 0.64$ ) or national ( $p = 0.42$ ) ADI categories.

## Conclusions

Neighborhood disadvantage measured using ADI scores does not appear to predict the number of ESS operations prior to Draf III procedures in this cohort and may not predict higher preoperative disease severity. Further research into the effects of SES and ADI on CRS is warranted.