



WILLIAM & MARY

**SCHROEDER CENTER
FOR HEALTH POLICY**

Food Deserts and Obesity and Malnutrition Hospitalizations in Virginia

Poster Presented on April 13, 2018

**By Tori Reese (Applied Math-Statistics/Economics, '20) and McKinley Saunders
(Economics, '19)**

Tori Reese and McKinley Saunder's study focused on the relationship between hospitalizations for three types of food-related health conditions (malnutrition, obesity, and obesity-related obstructive sleep apnea [OSA]) and food access. They focused, in particular, on food deserts, which they describe as "[a]reas characterized by low access to healthy and affordable food which contribute to social and spatial disparities of diet-related health outcomes."

Reese and Saunders used patient discharge data from Virginia's hospitals in 2016 for all age groups. They found that the "variation in percentage of the county population residing in a food desert is not independently linked to the rate of hospitalization for obesity without OSA or the rate of hospitalization for malnutrition." However, they reported that the "association between the percent of the county population residing in a food desert and hospitalization for obesity with OSA is positive and significant." Specifically, they concluded that "as the share of the population living in a food desert increases by 10 percentage points in a given county, the mean hospitalization rate for obesity with OSA will increase by 13.8 hospitalizations, or 4.26%."