

Emmaline Keesee, M.S.P.H.

Health Policy Ph.D. Program

emma.c.keesee@vanderbilt.edu



Effects of Rural Hospital Closures on Nursing Homes

Introduction: Rural hospital closures may disproportionately impact older adults who need more services and have more difficulty traveling long distances for care. Despite this, few studies have explored the effects of hospital closure on services most important for older adults. This study aims to fill that gap by modeling the impact of rural hospital closure on nursing homes. To the authors' knowledge, this is the first study to do so.

Methods: This study employed a dynamic difference in difference design with year- and facility-fixed effects to model county-level rural hospital closure impact on nursing home level outcomes from 2011-2019. The analysis concentrated on closures of hospitals providing skilled nursing care and their impact on non-hospital-based nursing home hospitalizations, occupancy rate, percentage of Medicare paying residents, and average resident ADL score. The comparison group included counties with no hospital closure and at least one hospital providing skilled nursing care throughout the period.

Results: There was little evidence that closure of a rural hospital providing skilled nursing care impacted local nursing home occupancy rate, percentage of Medicare paying residents, or average resident ADL score. The aggregated effect of closure was statistically significantly associated with a decline in hospitalizations per resident year, but the magnitude of effect was marginal. Dynamic effects on hospitalizations increased with years after hospital closure.

Conclusions: This study did not identify practically significant effects of hospital closure on local nursing homes. That said, the four outcome variables included are not a comprehensive representation of nursing home experience and further research is warranted not only into nursing home outcomes, but other forms of LTC. As policymakers grapple with solutions to ensure rural health care access, the extent to which hospital closures do or do not disadvantage rural populations is critical to understand.