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Rural Health

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This month's *Health Affairs* explores many dimensions of health and health care for the one out of five Americans who live in what the US Census Bureau defines as a rural area. Much attention is focused these days on the relatively poor health outcomes and heightened rate of socioeconomic disadvantage of rural America.

As Janice Probst and colleagues point out in their overview paper, rural mortality rates only started falling behind urban rates in the mid-1980s. The authors introduce the concept of "structural urbanism"—a bias in financing health care services tied to individuals that favors densely populated areas and fails to account for the fixed costs associated with delivering services to those living more remotely. Kevin Bennett and coauthors review how various government agencies define *rural* and point out the consequences of using definitions that may be inappropriate for a particular purpose.

ACCESS TO CARE

What are the consequences of access barriers in rural areas? Kenton Johnston and coauthors find that rural Medicare beneficiaries with chronic conditions experience a 40 percent higher preventable hospitalization rate and a 23 percent higher mortality rate, compared to urban residents. Having even one specialist visit significantly lowers that gap, leading the authors to conclude that "lack of access to specialists was the primary driver of higher mortality and preventable hospitalization rates."

Gordon Gong and coauthors identify socioeconomic status, physician shortages, and lack of health insurance as the primary reasons rural residents have higher mortality rates than urban residents in almost every state in the country. The authors conclude that "rural dwellers would have lived longer than their urban counterparts had their socioeconomic conditions and access to health care been similar."

Medical students from rural backgrounds are more likely to practice in rural areas than those from urban backgrounds are. Scott Shipman and coauthors find that in the years 2002–17 the number of medical school applicants from a rural background declined by 18 percent and the number of matriculants declined by 28 percent, while urban applicants increased by 59 percent and matriculants by 35 percent. The authors note "a growing mismatch between the qualifications of rural applicants and medical schools' admissions priorities."

HOSPITALS

Growing numbers of rural hospital closures raise serious concerns about access to care. Hayley Drew Germack and coauthors find that in 1997–2016, in the four years leading up to a rural hospital closure, there was an average 6.9 percent annual loss in general surgeons in that county. Over the six-plus years following a closure, there was a 10.5 percent annual loss in physicians overall, including an 8.2 percent annual loss in primary care physicians.

One potential response to impending hospital closure is to become part of a larger hospital system. Claire O'Hanlon and coauthors compare the attributes of the 306 rural hospitals that created such affiliations in 2009–17 with those of rural hospitals that did not. "Operating margins increased significantly following rural hospital affiliation with a health system—by 1.6–3.6 percentage points in years 2–5, from a baseline of –1.6 percent," the authors note. However, affiliating hospitals "experienced a significant reduction in on-site diagnostic imaging technologies, the availability of obstetric and primary care services, and outpatient nonemergency visits."

BEHAVIORAL HEALTH

Michael Barnett and coauthors examine the effects of the 2017 Comprehensive Addiction and Recovery Act on the expansion of clinicians able to prescribe buprenorphine, a key medication for treating opioid use disorder. "From 2016 to 2019 the number of waivered clinicians per 100,000 population in rural areas increased by 111 percent," with nurse practitioners and physician assistants accounting for more than half of the increase.

James Kirby and coauthors report that "among people likely to need mental health treatment, rural residents typically received fewer mental health services than urban residents did in 2010–15, even after mental and physical health and a variety of sociodemographic factors were controlled for." Despite an overall disadvantage in provider levels, Xinxin Han and Leighton Ku find that behavioral health staffing levels grew more rapidly in rural health centers than in urban centers in 2013–17, with most care provided by licensed clinical social workers and other licensed mental health providers.

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