

TENNESSEE HEALTH CARE CAPACITY DASHBOARD

Tennessee has faced a series of hospital closures over the last decade, bringing attention to the health care resources available in communities across the state. To inform related policy discussions, Sycamore created the Tennessee Health Care Capacity Dashboard – presented below along with several key findings on the health care capacity of counties without a hospital.

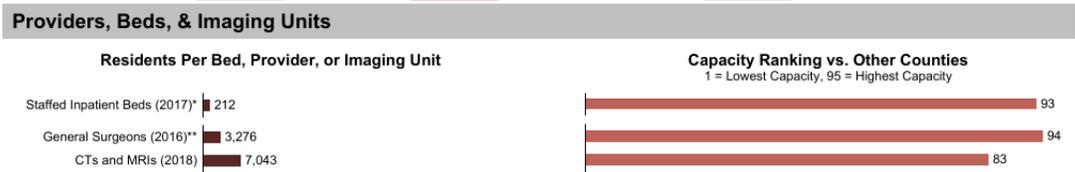
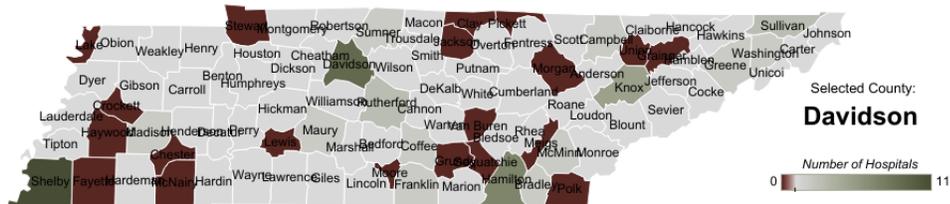
KEY TAKEAWAYS

- The Tennessee Health Care Capacity Dashboard compiles data on the hospital, primary care, and substance abuse/mental health care resources available in each of Tennessee’s 95 counties.
- The 20 counties without a hospital also tend to have lower capacity for primary and mental health care, but a hospital does not guarantee strong capacity for these provider types.
- The type and amount of medical resources a community requires locally can depend on its health care needs, ability to access and afford services, and the availability of alternatives.

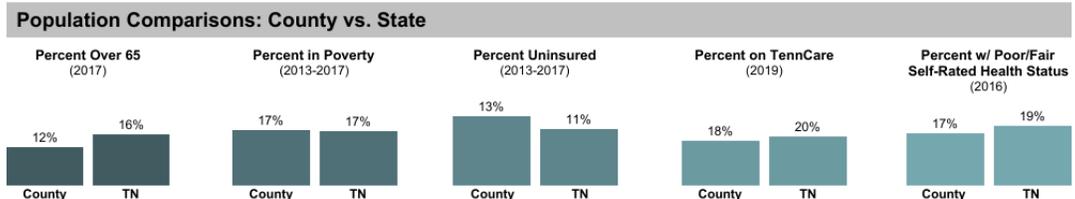
Tennessee Health Care Capacity Dashboard

Hospital, Emergency, & Imaging

Click a county to view its data.



*Staffed bed data have been adjusted to exclude hospitals that closed in 2018 or 2019 in Carroll, Clay, Hamblen, and Knox counties. **Provider counts do not reflect any impact of 2016-2019 hospital closures in Carroll, Clay, Hamblen, Knox, McNairy, and Polk counties.



Notes: Hospitals include general/surgical hospitals; Capacity rankings were calculated by ranking each county’s residents-to-bed/provider/unit ratios among all 95 counties. Sources: TN Department of Health, TN Hospital Association, U.S. Health Resources and Services Administration, U.S. Census Bureau, U.S. Centers for Disease Control and Prevention, TennCare. See **Appendix** for a complete list of definitions and sources. Updated May 1, 2019



Use our [Tennessee Health Care Capacity Dashboard](#) to explore data on key health care resources available in each of Tennessee's 95 counties. The dashboard compiles data from over 20 sources on the hospital, emergency, imaging, primary care, and substance abuse/mental health care resources available across the state. This tool's hospital metrics include only general/surgical hospitals and exclude specialty, exclusively children's, veterans, and psychiatric hospitals.

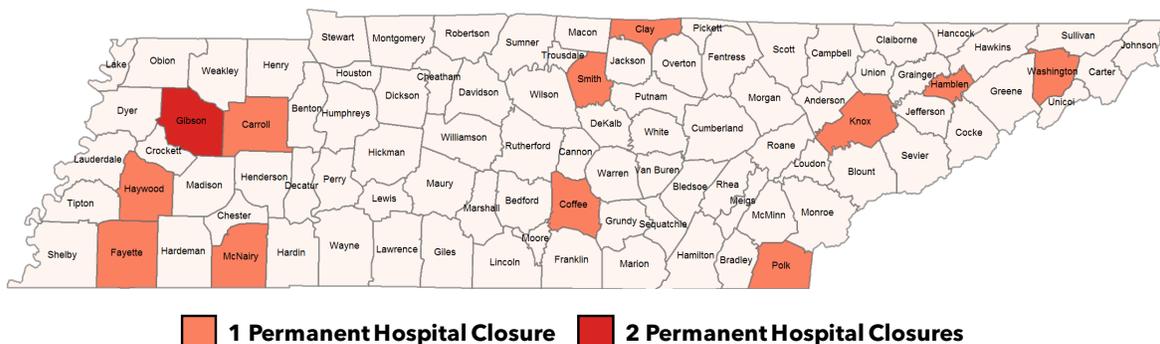
See the [Appendix](#) for a full list of sources, data definitions, and data notes. Download the full dataset [here](#).

Hospital Closures and Counties Without a Hospital

Since 2010, 13 Tennessee hospitals have permanently closed (Figure 1). According to one national tracker, Texas is the only state that has had more rural hospital closures than Tennessee. (1) Some of Tennessee's 13 closed hospitals have continued some level of services (e.g. outpatient care, freestanding emergency department), and some were coupled with capacity expansions at other nearby hospitals.

Figure 1. 13 Tennessee Hospitals Have Permanently Closed Since 2010

Permanent Tennessee Hospital Closures by County Since 2010



Accounts for hospital closures through May 1, 2019. Includes only general/surgical hospitals, excludes specialty and exclusively children's, veterans, and psychiatric hospitals.

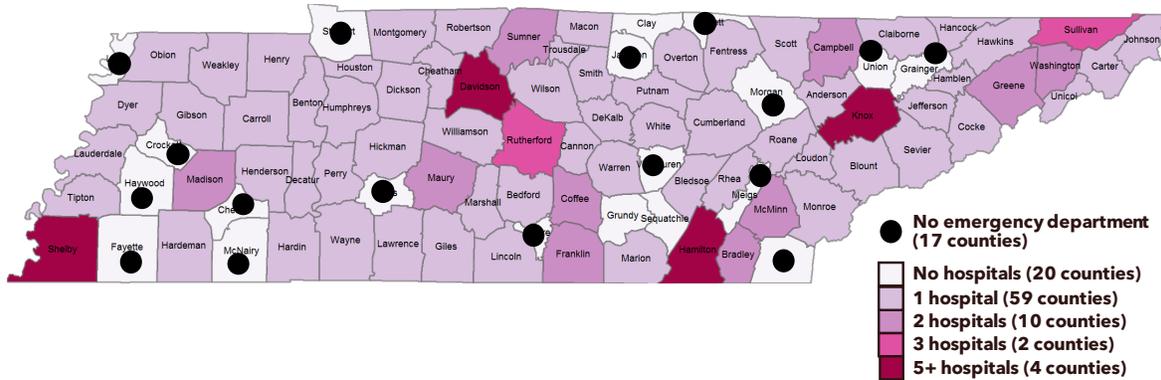
Source: The Sycamore Institute's analysis of information from the Tennessee Department of Health and news reports. (2) (3) (4) (5) (6) (7)

As of April 2019, 20 Tennessee counties had no hospital – 17 of which also had no emergency department (Figure 2). About 4.6% of Tennesseans live in a county without a hospital and 4.0% live in a county without an emergency department. (8) (3) (2) (6) (7) (5) (4) (9) A community's health care capacity, however, also extends beyond the walls of a hospital. Figures 3 and 4 show two examples of how health care capacity varies across counties with and without a hospital.

The 20 counties without a hospital tend to have lower capacity of primary care physicians (Figure 3) and mental health providers (Figure 4). However, they are not the *only* counties with relatively low access to these provider types. (7) For example, Bledsoe, Lauderdale, and Marshall counties and Hancock, Macon, and Trousdale counties are among the bottom 10 counties in number of residents per primary care physician and mental health provider, respectively. (10) (8) (11) (2) (3) (4) (5) (6)

Figure 2. 20 Tennessee Counties Have No Hospital, 17 Do Not Have an Emergency Department

Number of Hospitals by County (2019)

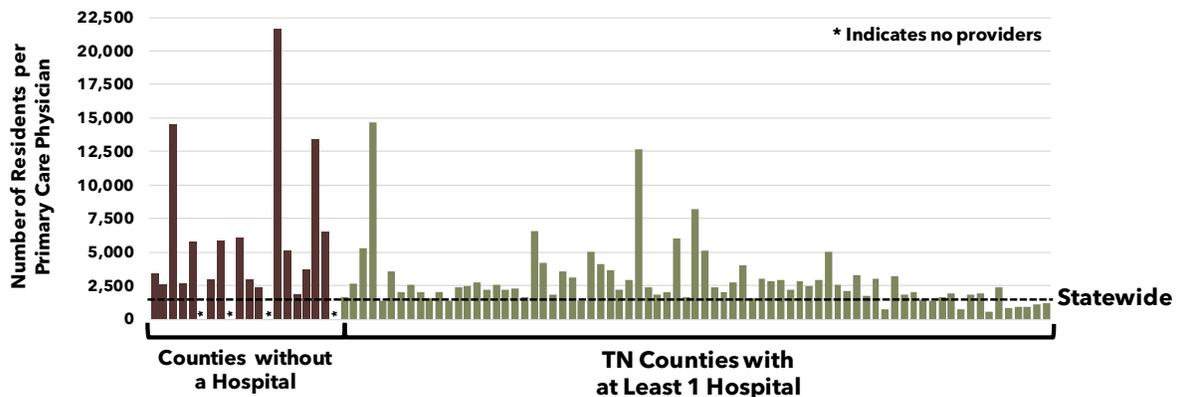


Includes only general/surgical hospitals, excludes specialty and exclusively children’s, veterans, and psychiatric hospitals. Accounts for hospital closures through May 1, 2019 and both hospital-based and freestanding emergency departments as of February 27, 2019.

Source: The Sycamore Institute’s analysis of information from the Tennessee Hospital Association, Tennessee Department of Health, and news reports. (2) (3) (4) (5) (6) (7)

Figure 3. Tennessee Counties Without a Hospital Tend to Have Lower Primary Care Physician Capacity

Population-to-Primary Care Physician Ratios by Tennessee County (2016)

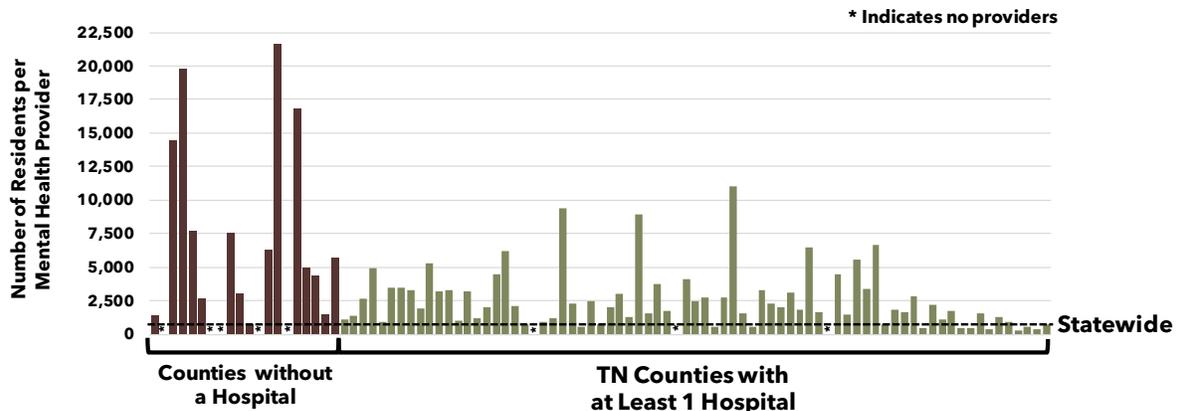


Includes physicians working in general family medicine, general practice, general internal medicine, and general pediatrics in either an office- or hospital-based setting. Physician counts may not reflect any impact of 2016-2019 hospital closures in Carroll, Clay, Hamblen, Knox, McNairy, and Polk Counties.

Source: The Sycamore Institute’s analysis of information from the Health Resources and Services Administration (10), the Census Bureau (8), the Tennessee Department of Health (2) (3), and news reports. (4) (5) (6) (7)

Figure 4. Tennessee Counties Without a Hospital Tend to Have Lower Mental Health Provider Capacity

Population-to-Mental Health Ratios by Tennessee County (2017)



Includes psychiatrists, psychologists, licensed clinical social workers, counselors, marriage and family therapists, mental health providers that treat alcohol and other drug abuse, and advanced practice nurses specializing in mental health care. Provider counts may not reflect any impact of 2016-2019 hospital closures in Carroll, Clay, Hamblen, Knox, McNairy, and Polk Counties.

Source: The Sycamore Institute's analysis of information from the Robert Wood Johnson Foundation (11), the Tennessee Department of Health (2) (3), and news reports. (4) (5) (6) (7)

Other Factors to Consider

Determining what health care resources a given community needs locally is complicated and warrants further research. There is some consensus that primary and emergency care are the most essential health care services needed in rural communities. (12) There are, however, multiple factors that drive the type and amount of health care services a community might need:

- **What are the medical needs of the community?** The kinds of conditions individuals have may dictate the kinds of services that a community needs most. The demographics of a community also play a role as different age groups (e.g., children, women of childbearing age, elderly, etc.) may call for different kinds of health care services and providers.
- **What resources does a community have to help access and afford medical services?** For example, large numbers of uninsured, low-income, or underserved individuals may call for more safety net services like community health centers.
- **Are alternatives available?** For example, are another community's resources in close proximity? Are telehealth services available and appropriate for the health care needs of the population? Are there other barriers that may affect a community's ability to access these alternatives – for example, geographic, technological, or transportation barriers?

A Word of Caution

We caution readers not to mistake correlation with cause-and-effect. Correlation means that two factors move in the same or opposite directions at the same time. Causality means that changes in one factor lead to changes in another. Establishing cause-and-effect requires more sophisticated research

design – like statistical controls, experimental designs with random assignments or matching techniques, or longitudinal designs. (13) (14) Sometimes two data points may be correlated, but there is some other factor at play.

The Larger Picture

Health care access – along with health behaviors and physical, social, and economic environments – are all major drivers of health that are influenced by where we live. Our communities and neighborhoods can affect our access to the factors that influence health – including not only health care resources but also education, jobs, social support, transportation, and healthy foods.

The drivers of health are also complex and interconnected – affecting one another while also influencing our health and well-being. Social and economic factors, for instance, can impact our access to health care. As an example, Tennessee counties with higher median incomes tend to have more practicing primary care physicians per resident. (16) Greater income and wealth generally provide better access to medical care, nutritious food, safe neighborhoods and communities, opportunities for physical activity, and high quality education. (15)

Parting Words

The Tennessee Health Care Capacity Dashboard provides an introduction to some of the resources available across Tennessee. It is a starting point for understanding the state’s health care challenges and opportunities – one of the many complicated and interrelated factors that affect the health and prosperity of Tennesseans.

THE SYCAMORE INSTITUTE

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Written By
Mandy Pellegrin
Policy Director
MPellegrin@SycamoreInstituteTN.org

Courtnee Melton, PhD
Policy Analyst
CMelton@SycamoreInstituteTN.org

Media Inquiries
Brian Straessle
Director of External Affairs
BStraessle@SycamoreInstituteTN.org

Other Sycamore Staff
Laura Berlind
Executive Director
Seb Rougemont
Operations & Engagement Coordinator

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See the **Appendix** for a full list of sources, data definitions, and data notes for the Tennessee Health Care Capacity Dashboard.