# Findings Brief NC Rural Health Research Program

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# Geographic Variation in Risk of Financial Distress among Rural Hospitals

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## **OVERVIEW**

From 2005 to 2015, 112 rural hospital closures have been identified (North Carolina Rural Health Research Program, 2015)<sup>1</sup>. Although six of these closed hospitals have since reopened, the remaining closures impact millions of rural residents in communities that are typically older and poorer, more dependent on public insurance programs, and in worse health than residents in urban communities.<sup>2,3,4</sup>

The Financial Distress Index (FDI) model (see NC Rural Health Research Program Findings Brief "Prediction of Financial Distress among Rural Hospitals") assigns hospitals to high, mid-high, mid-low or low risk levels (in two years) using current hospital financial performance, government reimbursement, organizational characteristics and market characteristics. Using 2013 FDI risk levels, this brief describes the geographic variation in the proportion of rural hospitals forecasted to be at high risk of distress in 2015.

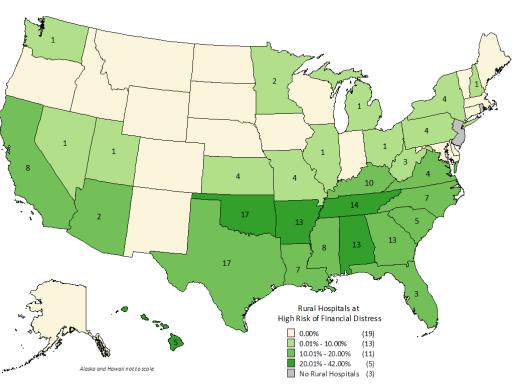
# **RESULTS**

Figure 1 shows that the states with the largest number of rural hospitals at high risk of financial distress are Texas (17), Oklahoma (17), Tennessee (14), Arkansas (13), Georgia (13), Alabama (13), and Kentucky (10). The States with the largest percentage of rural hospitals at high risk are Hawaii (42%), Oklahoma (24 %), Arkansas (27%), Tennessee (23%), and Alabama (30 %). Nineteen states have no rural hospitals at high risk of financial distress.

# **KEY FINDINGS**

- Texas, Oklahoma,
  Tennessee, Arkansas,
  Georgia, Alabama, and
  Kentucky have the largest
  number of rural hospitals
  at high risk of financial
  distress (10+ rural hospitals
  in each state).
- Hawaii, Oklahoma,
  Arkansas, Tennessee, and
  Alabama have the largest
  percentage of rural
  hospitals at high risk of
  financial distress (>20% of
  rural hospitals in each
  state).
- The South census region has the largest percentage of rural hospitals at high and mid-high risk of financial distress.

Figure 1: Number and Percentage of Rural Hospitals at High Risk of Financial Distress in 2015



Source: North Carolina Rural Health Research and Policy Analysis Center, Cecil G. Sheps Center for Health Services Research University of North Carolina at Chapsel Hill, September 2015 http://www.shepscenter.unce.du/programs-projects/rural-health/ Figure 2 shows that the South census region has the largest percentage of rural hospitals at high and mid-high risk of financial distress. The other three census regions have relatively similar percentage of rural hospitals in each category of risk of financial distress. Among the 19 States that have no rural hospitals at high risk, most are located in the West and Mid-west census regions.

High risk ■ Mid-High Risk Mid-Low Risk Low risk 10% 30% West 55% South 14% 35% 13% 37% Midwest 10% 28% 58% Northeast 10% 58% 28%

Figure 2: Percentage of Rural Hospitals in Each Category of Risk of Financial Distress in 2015 by Census Region

## DISCUSSION

The geographic variation in risk of financial distress among rural hospitals is striking. In Alabama, Arkansas, Hawaii, Oklahoma, and Tennessee, more than one in five rural hospitals are at high risk for financial distress. The probability of closure and reduction of services is significantly greater for rural hospitals at high risk of financial distress. Preventing negative health impacts for their residents may require innovative strategies for maintaining access to care in rural populations.

#### REFERENCES AND NOTES

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