EVOLVING ROLES OF RURAL HOSPITALS: EVIDENCE FROM PANDEMIC EXPERIENCES

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Director, Rural Policy Research Institute and
RUPRI Center for Rural Health Policy Analysis
Presentation to the Southern Legislative Conference
75th Anniversary Annual Meeting
Nashville, TN
July 12, 2021
Multiple stories behind the data of institutions in peril and people in need of services

The context of experiences from dealing with a pandemic

Recommended reading for the story lines seen in one community and surrounding region: *The Hospital* by Brian Alexander

The opportunities to use resources generated by response to the pandemic
THE CHALLENGE OF COVID-19

- Data on the incidence rates, 7-day moving average
- Data on the death rates, 7-day moving average
- Maps of the southern states
DATA ON THE INCIDENCE RATES, 7-DAY MOVING AVERAGE

COVID-19 Incidence Rates: 7-day moving average
4/1/2020 - 6/13/2021

Case counts from Johns Hopkins University CSSE COVID-19 Data
https://github.com/CSSEGISandData/COVID-19
Population based on 2018 ACS 5-y estimates.

Metropolitan
Nonmetropolitan

Confirmed cases / 100,000 population
Mar 2020 May Jul Sep Nov Jan 2021 Mar May Jul
DATA ON THE DEATH RATES, 7-DAY MOVING AVERAGE

COVID-19 Mortality Rates: 7-day moving average
4/1/2020 - 6/13/2021

- Metropolitan
- Nonmetropolitan

Death counts from Johns Hopkins University CSSE COVID-19 Data
https://github.com/CSSEGISandData/COVID-19
Population based on 2018 ACS 5-yr estimates.

IOWA Department of Health Management and Policy

RURAL POLICY RESEARCH INSTITUTE
MAP OF THE SOUTHERN STATES

Southeast Counties with COVID-19 Cases
June 20, 2021
Metro cases: 10,651,485  Nonmetro cases: 2,295,093
*Metro rate: 384.78  Nonmetro rate: 498.04

* Confirmed cases / 10,000 population based on 2018 American Community Survey estimates

Rural Policy Research Institute (RUPRI)
University of Iowa, College of Public Health

Data source: Johns Hopkins University CSSE COVID-19 Data
https://github.com/CSSEGISandData/COVID-19
MAP OF THE SOUTHERN STATES

Southeast Counties with COVID-19 Deaths
June 20, 2021
Metro deaths: 168,686  Nonmetro deaths: 50,651
Metro rate: 6.09  Nonmetro rate: 10.99

*Deaths/10,000 population based on 2018 ACS 5-year estimates.
Rural Policy Research Institute (RUPRI)
University of Iowa, College of Public Health

Data source: Johns Hopkins University CSSE COVID-19 Data
https://github.com/CSSEGISandData/COVID-19
MEETING THE CHALLENGE: ICU BED CAPACITY

Multiple resource challenges, including equipment (ventilators) and personnel (general nursing, specialists)

Capacity of the facilities to treat advanced cases

Measure the availability of ICU beds
### Table 1. General Medical and Surgical Beds and COVID-19 Confirmed Cases

<table>
<thead>
<tr>
<th>County Type</th>
<th>Counties</th>
<th>Total Pop.¹</th>
<th>COVID Cases²</th>
<th>Counties</th>
<th>Total Pop.¹</th>
<th>COVID Cases²</th>
<th>Median Cases/bed</th>
<th>Countires w/ 1+ case/bed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metropolitan (n=1,166)</td>
<td>226</td>
<td>6.26M</td>
<td>4,237.4</td>
<td>940</td>
<td>256.19M</td>
<td>189,839</td>
<td>0.55</td>
<td>209</td>
</tr>
<tr>
<td>Nonmetropolitan (n=1,976)</td>
<td>460</td>
<td>4.71M</td>
<td>2,818.3</td>
<td>1,516</td>
<td>41.59M</td>
<td>24,373</td>
<td>0.33</td>
<td>167</td>
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<tr>
<td>Nonmetropolitan, micropolitan (n=641)</td>
<td>77</td>
<td>1.04M</td>
<td>600.3</td>
<td>564</td>
<td>26.12M</td>
<td>15,893</td>
<td>0.46</td>
<td>93</td>
</tr>
<tr>
<td>Nonmetropolitan, noncore (n=1,335)</td>
<td>383</td>
<td>3.67M</td>
<td>2,218.0</td>
<td>952</td>
<td>15.47M</td>
<td>8,480</td>
<td>0.26</td>
<td>74</td>
</tr>
</tbody>
</table>

1. Population based on 2010 decennial census.
2. Average daily new cases Jan. 9 – Jan. 15 based on data obtained from Johns Hopkins University COVID-19 Data Repository
<table>
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<th>County Type</th>
<th>Counties</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Metropolitan (n=1,166)</td>
<td>383</td>
<td>12.48M</td>
<td>8,034.3</td>
<td>783</td>
<td>249.96M</td>
<td>186,042</td>
<td>3.69</td>
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<tr>
<td>Nonmetropolitan (n=1,976)</td>
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<td>16.42M</td>
<td>9,361.3</td>
<td>769</td>
<td>29.87M</td>
<td>17,830</td>
<td>2.46</td>
<td>630</td>
</tr>
<tr>
<td>Nonmetropolitan, micropolitan</td>
<td>171</td>
<td>4.09M</td>
<td>2,455.1</td>
<td>470</td>
<td>23.07M</td>
<td>14,038</td>
<td>2.91</td>
<td>416</td>
</tr>
<tr>
<td>(n=641)</td>
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<td></td>
</tr>
<tr>
<td>Nonmetropolitan, noncore</td>
<td>1,036</td>
<td>12.34M</td>
<td>6,906.1</td>
<td>299</td>
<td>6.80M</td>
<td>3,792</td>
<td>1.90</td>
<td>214</td>
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<tr>
<td>(n=1,335)</td>
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KEY ISSUES FOR HOSPITALS

• Capacity to treat
• Managing interruptions in traditional revenue streams
• Adapting to new claims and new technologies
KEY ISSUES FOR HOSPITALS

• Treating underserved populations, including those lacking insurance coverage: rural hospital is the safety net provider in the community for acute care services

• Taking on public health functions
MAKING THE RIGHT INVESTMENTS

• Thinking of sub-state and inter-state regions: learning from the experience of sharing resources during pandemic to manage wisely to deliver care across the continuum
• Meeting the challenge of flexing up in capacity (physical) and resources (personnel and equipment)
• Role of telehealth; may mean different use of capital
• Role of information exchange accentuated as well by pandemic – another investment
THE CASE FOR INVESTMENTS IN LOCAL RURAL HOSPITALS

• Capacity to serve in times of greatest need, with services close to home – improve chances for early treatment, trust in providers

• Role of the hospitals in meeting public health needs – more than the bricks and mortar (indeed, may not need all the bricks and mortar)

• Interaction of acute care and public health obvious during pandemic – should be apparent across the continuum of care
• Immediate fiscal relief for lost revenue and increased uncompensated costs during pandemic – all states

• Improving availability of personnel: Alabama Office of Primary Care and Rural Health; Oklahoma Physician Manpower Training Commission; Mississippi Rural Physicians Scholarship Program

• Supporting telehealth investments: Virginia pilot program includes use of telehealth services; Mississippi reimbursement for distant sites
ROLE FOR STATE POLICY: INVESTING PUBLIC FUNDS

- Hospital operations, including assistance for transformation: Alabama Rural Hospitals Resource Center; Georgia Rural Hospital Improvement Program;
- Community collaborations, including with public health: North Carolina supporting local health departments and the Old North State Medical Society

ROLE FOR STATE POLICY: REGULATORY ACTIONS

- Continuous review of scope of practice statutes and regulations to promote optimum use of personnel
- Review of hospital regulations to facilitate transitions to appropriate configurations
- Inter-state compacts that facilitate appropriate use of telehealth
RURAL DEVELOPMENT

• Goal is strong communities able to be resilient when challenged by exogenous shocks like the pandemic

• Need to focus on the capitals that constitute the comprehensive wealth framework: physical, financial, human, intellectual, political, natural, social, and cultural

• Rural hospitals and collaborators contribute to financial, human, intellectual, and social in very direct ways
CONCLUSION

• Be prepared for repeat experiences in the future
• Secure the role of rural hospitals and their financial future
• In the context of rural community development
FOR FURTHER INFORMATION

• The RUPRI Center for Rural Health Policy Analysis
  • http://cph.uiowa.edu/rupri

• The RUPRI Health Panel
  • http://www.rupri.org

• Rural Telehealth Research Center
  • http://ruraltelehealth.org/

• The Rural Health Value Program
  • http://www.ruralhealthvalue.org
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For more than 30 years, the Rural Health Research Centers have been conducting policy-relevant research on healthcare in rural areas and providing a voice for rural communities in the policy process.

The Rural Health Research Gateway ensures this research lands in the hands of our rural leaders.

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