Are Critical Access Hospitals in Critical Condition?

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Introduction

In recent times the debate has increased on the condition of critical access hospitals and their ability to avoid closure. The 1,368 critical access hospitals (CAH) located throughout the U.S. are often the only available 24-hour source of emergency services and the main provider of health care services to the 20% of the U.S. population that reside in rural areas (Rural Health Initiative Hub, 2024). In addition, critical access hospitals are a key economic hub in rural communities and a major source of employment. The American Hospital Association (2022) reports that 136 rural hospitals closed from 2010-2021 (Stansberry et al, 2023). From 2005-2023, in rural America, 192 hospitals shut down including 34 closures in the final four years of this period (Gamble, 2024). Over the 19-year period Texas had the most hospitals closures with 25, followed by Tennessee, while Illinois was tied for the 16th most with four hospital closures (Gamble, 2024). The economic uncertainty and tension to workers caused by rural hospital closures extends beyond hospital employees as local businesses depend on these facilities to provide health care services to employees (University of Phoenix, 2024). The purpose of this paper is to determine if Illinois critical access hospitals are in danger of closing by comparing data from 2019 (the last full year pre-pandemic) to 2022 (the most recent for which data are available): a) what are the demographics of the population served, b) what is the financial status of the 20 hospitals, and c) has the type of practice changed because of the lack of physicians and costly surgical equipment to focus more on outpatient care.

Hospitals are designated critical access by their state government if they meet required criteria. These standards include that the hospitals; serve a rural area or area treated as rural, are located 35 miles or more from the nearest hospital, operate no more than 25 inpatient beds, have an average length of stay of 96 hours or less for acute care patients, and operate 24-hour

emergency department 7 days a week. With this designation, hospitals receive retrospective reimbursement from the Centers for Medicare and Medicaid for 101% of reasonable cost for most inpatient and outpatient services (CMS.gov., 2024). Retrospective means after the service is provided, reasonable costs are determined, and CAHs receive one percent over these costs. Most hospitals receive prospective reimbursement where the reimbursement amount is set based on the diagnosis prior to care being provided.

Challenges Facing Critical Access Hospitals

Rural hospitals close for multiple reasons. The primary factor in these closures is financial instability (Kaufman et al., 2015; Mills et al., 2023; Stansberry et al., 2023). A second commonly cited reason is the decline of rural population along with an increase in the population age 65 and over in these areas (Wishner et al, 2016). Generally, older populations have more health care needs than younger populations. Rural hospitals often treat patient populations that are older, sicker, and poorer compared to the national average (American Hospital Association, 2022). Closures of rural hospitals impact the travel time to health care facilities and hospitals (Troske & Davis, 2019; U.S. Government Accountability Office, 2020). A third common reason is lack of physicians, particularly specialists in rural areas (American Hospital Association, 2022; Hughes, 2022; Sarap, 2022). This study will analyze Illinois critical access hospitals for these three common reasons for hospital closures.

Methodology

This study used data from all not-for-profit critical access hospitals in Illinois that had IRS Form 990s available for 2019 and 2022 on beta.candid.org 990 Finder (2024). IRS 990 forms were not available for hospitals whose financial data were reported as part of a health system and for-profit hospitals. This resulted in data being available for 20 critical access

hospitals located in 19 Illinois counties. Data collected were total revenue, total expenses, and revenue minus expenses for 2019 and 2022 to determine if the hospitals had a positive or negative profit margin. Data were retrieved from the hospital profile report for the years 2019 and 2022 from the Annual Hospital Questionnaire of the Illinois Department of Public Health. Data collected were total inpatient revenue, total outpatient revenue, and total revenue for both years. Bureau of the Census data were used for total population, and population 65 years and older for the 19 counties and Illinois.

Data were analyzed to provide insights in three main areas. The first area is the demographics of the population served by the hospitals. Total population compared 2019 and 2022 figures to determine the net change in population in each of the 19 counties, and the 19 counties in total compared to net change in population for the State of Illinois. The population 65 years and older was used to determine to change in this population for each of the 19 counties compared to the Illinois total. The second area of study involved an analysis of overall financial indicators of the hospitals to determine the current financial condition of the facilities. Total revenues, total expenses, and revenues minus expenses were compared for both years. A total average of revenue minus expenses was also developed for all 19 hospitals. The third area of study is to assess if critical access hospitals have a different approach to care focusing more on outpatient services which can be offered by physicians and other professionals such as nurse practitioners and physician assistants. A focus on outpatient services would indicate a move away from complex surgery which requires physician specialists and expensive operating suites. To determine this focus of care, outpatient revenue for 2019 and 2022 will be compared to total patient revenue and compared to the total for all hospitals in Illinois. Data are descriptive in nature. Individual hospitals and counties will not be identified.

Results

The results will attempt to provide insights into the viability of critical access hospitals in Illinois. This will be analyzed by reviewing population demographics including total population and the population 65 years and older of the 19 counties. The financial condition of the 20 hospitals will be analyzed by reviewing revenues, expenses, and revenue minus expenses. The overall medical services focus of the 20 hospitals will be analyzed by comparing the percentage of total revenue from outpatient services.

Demographics

Total population of the 19 counties was compared in 2019 and 2022 (Table 1). Total population decreased in 12 of the counties while seven counties had an increase in population. The total population for the 19 counties in this study had a decrease of 4,868 residents for an overall decrease of 0.52%. This is slightly lower than the Illinois overall population which experienced a population loss of 89,306 or a decrease of 0.70%. The population 65 and over increased in all 19 counties and Illinois with 15 counties having over 20% of the population 65 and over. The 65 and over population exceeded the Illinois percentage in 18 of the 19 counties in both 2019 and 2022. However, when comparing the rate of increase in the 65 and over population, Illinois had an increase of 6.83%, which was a higher rate of increase than in 13 of the counties, with only six counties having a greater increase in this population group.

Table 1

Demographics of the 19 Counties and Illinois 2019 to 2022

Indicator	Result
Total Population	Decreased in 12 counties, increased in 7 counties Total decrease in 19 counties (-0.52%) lower than Illinois decrease (-0.70%)
Population 65+	Increased in all 19 counties and Illinois 15 of 19 counties 65+ are more than 20% of population 18 of the 19 counties have higher percentage 65+ than Illinois 13 counties had a lower percentage increase than Illinois

Financial Condition

The financial condition of the hospitals was compared in 2019 and 2022 (Table 2). Total revenue increased from 2019 to 2022 in 18 hospitals and decreased in two. The average increase in revenue during the 3-year period was 29.33%. During the same period, expenses increased in all 20 hospitals with an average increase in expenses 26.27%. Despite the increase in expenses, on average the increase in revenue is offsetting increased expenses. In 2019, five of the hospitals had a negative profit margin while 15 had a positive profit margin. In 2022, three hospitals had a negative margin while 17 were positive. Despite three hospitals having negative margins it represented a decrease from five in 2019 and the worst margin of the three was -1.67% indicating close to break even status. For all 19 hospitals, the profit margin increased from 2019 (+6.18%) to 2022 (7.77%).

Table 2

Financial Condition of the 20 Critical Access Hospitals 2019 to 2022

Indicator	Result
Total Revenue	Increased in 18 hospitals, decreased in 2, average revenue increased +29.33%
Total Expenses	Increased in all 20 hospitals, average expenses increased +26.27%.
Total Margin	In 2019, 5 hospitals had a negative margin and 15 had a positive margin In 2022, 3 hospitals had a negative margin and 17 had a positive margin For all 20 hospitals, total margin increased from 2019 (6.18%) to 2022 (7.77%)

Medical Services Focus

As a measure of practice focus, outpatient revenue was compared as a percentage of total patient revenue in 2019 and 2022 (Table 3). Total inpatient revenue and total outpatient revenue both increased from 2019 to 2022 in 17 hospitals and decreased in three hospitals. Outpatient revenue as a proportion of total patient revenue in 2019 ranged from 68% to 94% and in 2022 ranged from 59% to 93%. For all 20 hospitals, the average outpatient percentage of total patient

revenue remained constant from 2019 (83.7%) to 2022 (83.3%). This is greatly higher than the Illinois average outpatient revenue percentage of total patient revenue for all hospitals, which also remained constant from 2019 (52.1%) to 2022 (53.1%).

Table 3

Medical Services Focus of the 20 Critical Access Hospitals 2019 and 2022

Indicator	Result
Inpatient Revenue	Increased in 17 hospitals, decreased in 3 hospitals
Outpatient Revenue	Increased in 17 hospitals, decreased in 3 hospitals
Percent Outpatient Revenue	Total for all 20 hospitals varied slightly, 2019 (83.7%), and 2022 (83.3%) Illinois total varied slightly, 2019 (52.1%), and 2022 (53.1%)

Limitations

This study was focused on one midwestern state, Illinois. Data were analyzed for 20 designated critical access hospitals and did not include rural hospitals that do not have this designation. These facilities were located in 19 counties which represented about 20% of the counties in the state. Three main indicators were used in this study regarding population demographics, financial conditions, and practice focus.

Discussion

A review of the viability of critical access hospitals provides some valuable insights on their ability to continue to provide care to rural residents. Our analysis, focusing on 20 critical access hospitals located in 19 Illinois counties, noted a declining population from 2019 to 2022, however at a slightly lower rate than the population loss for Illinois. This indicates there is not a mass exodus of population from the rural regions compared to urban areas. The 65 and over population increased in all 19 counties and Illinois, yet only six of the counties had a greater increase of the 65 and over population compared to the state, meaning that the population is not aging at a faster rate than the entire state. In addition, with the total U.S. population aging, rural

areas may provide insights on how to care for a population that has more than 20% of residents 65 and over. Regarding the rural population, there may be reason for concern of a slightly declining and aging population, but the results don't indicate an overly serious condition compared to the state population.

The current financial status of the critical access hospitals appears to be fairly stable with only three of the 20 hospitals having a slightly negative margin, and the overall margin of the hospitals increased over the 3-year period. Further evidence of improving financial conditions is revenues increased faster than expenses over the study period. If a financial cliff was coming for critical access hospitals, it appears for now it has been avoided.

Critical access hospitals seem to have already changed their practice pattern to focus on outpatient services as opposed to more costly inpatient care. The success in the change of practice would require actions by hospital leaders such as: visibility with upper management/leadership, helping/mentoring others in their careers, regular conversation with manager/boss about career path, networking opportunities, and internal mobility opportunities (University of Phoenix, 2024). These actions are welcomed by nearly 90% of American healthcare workers (University of Phoenix, 2024). A focus on primary care can meet many of the population's immediate needs, while maintaining emergency services for needed occasions. Outpatient services also may alleviate the physician shortage to a degree as other health care providers such as nurse practitioners and physician assistants can be utilized. These hospitals may also provide lessons on how all hospitals can move more services to an outpatient setting and develop a system to move patients efficiently to specialty advanced care facilities.

An area of future focus of need that has an immense shortage in rural areas (American Hospital Association, 2022) for critical access hospitals is behavioral health (Mills et al., 2024).

Although the prevalence of serious mental illness is similar between U.S. adults living in rural and urban areas, rural adults receive mental health treatment less frequently and often with providers having less specialized training (Morales et al, 2020). This need is further demonstrated by police reporting increasing calls to respond to mental health issues in rural areas (David, 2023). In an attempt to alleviate this need, one initiative is to establish rural community health centers that focus on primary care along with other services including behavioral health.

Conclusion

Much has been written about the likelihood of critical access and rural hospitals failing, leaving their population without access to care or emergency services. With 85% of American workers saying they are resilient when facing a career challenge, healthcare workers appear to have been up for changes to keep CAH open (University of Phoenix, 2024). This analysis, focusing on 20 critical access hospitals in 19 Illinois counties has found the population is trending in line with the entire state population, improving financial indicators for these hospitals, and a well-established change in practice focus to outpatient services. As these hospitals are a vital part of the rural health care it is well advised to maintain caution and be vigilant or guarded in assuring the continued operation of these facilities. However, based on this analysis, it seems that critical access hospitals currently are not on the critical list.

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