Impact of Hospital Closure on Rural Communities: A Qualitative Study

Authors
Redwan Bin Abdul Baten, PhD
Mina Shrestha, PhD

Contributing Authors
Fred Ullrich, BA
Whitney Zahnd, PhD
Keith J. Mueller, PhD

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RUPRI Center for Rural Health Policy Analysis
University of Iowa, College of Public Health
Department of Health Management and Policy
145 N. Riverside Drive, Iowa City, IA 52242
(319) 384-3832
http://www.public-health.uiowa.edu/rupri
Email: cph-rupri-inquiries@uiowa.edu

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Purpose

Rising rates of rural hospital closures have prompted concerns about access to care in affected communities. This policy brief summarizes findings from interviews with state and community leaders who experienced hospital closures between May 2010 and December 2017, detailing their impact on rural communities and how local communities adapted to them.

Key Findings

- Rural communities with hospital closure experienced a decline in access to regular, necessary, and emergent care.
- Hospital closures had negative impacts on local businesses and the economy in rural communities with hospital closure.
- While negative impacts on healthcare access and the local economy were significant concerns, rural communities identified ways to adapt to the changing health care landscape.
- Many health care systems responded by opening newer facilities, improving emergency medical services, and adding or retaining specialty services and providers.

Introduction

The growing rate of rural hospital closures in the last decade has exacerbated concerns about access to care in rural communities.[1-3] As of December 19, 2024, the North Carolina Rural Health Research Program (NCRHRP), reported that 150 rural hospitals have closed between 2010 and 2024, excluding those that have converted to a Rural Emergency Hospital. [4] Compared to their urban counterparts, rural hospitals face an array of factors that induce financial distress. Rural populations often have higher prevalence of chronic disease, higher median age, higher rates of poverty, higher uninsurance, unemployment rates, and lower education levels ,[2,5--10,13] Rural hospitals tend to have lower patient volume and occupancy rates,[3] smaller market size [2] and lower market share,[2,14] limited staff [3] and service capacity,[3,13] greater dependency on public insurance,[2,5] relatively lower Medicaid reimbursement,[2,5,6] and are more likely a for-profit private entity.[2] Access to care is a significant concern following hospital closure in rural communities.[7,15]

Reports from the Government Accountability Office (GAO) and media outlets showed reduced availability of health care services and professionals, increased travel distance to the nearest hospital,[15-17] impact on emergency services including increased patient time in an ambulance,[18-20] travel distance and time to the nearest emergency department (ED), higher inpatient mortality rates,[21-23] reduced transportation options,[24] and increased ED volume in bystander EDs/hospitals.[25-27] From a community economy perspective, rural hospital closures negatively affect income, labor force growth,[28] employment and wages,[1] local business sustainability, and the local economy.[29,30]

When rural hospitals experience significant financial uncertainty, leaders may explore different avenues to address these challenges. Hospital leadership may explore mergers and acquisitions as a means of sustaining essential health services in their communities.[31,32] Some rural communities may pursue alternative ways to deliver care built upon a robust primary care infrastructure[31] and adopt new ways to

connect residents with access to emergency services.[33,34] However, there is limited information on how people in rural communities access emergency care and ambulance services following closure of the local hospital.

Few studies have analyzed community perceptions and responses to rural hospital closures, and at least two of them were limited in their geographic scope.[23,35] Therefore, there is a need to conduct an in-depth study about the impact of rural hospital closure and learn how rural communities respond in the years following closure. Our objective was to determine responses or adaptations of rural communities to hospital closures by interviewing local and state stakeholders who were directly or indirectly involved with hospitals before, during, or after closures to provide a close perspective on factors leading to closure and subsequent consequences.

Methods

We conducted 25 in-depth interviews with key informants from ten communities who were involved with the events of rural hospital closures in ten US states. The sampling frame consisted of 83 hospitals experiencing complete closure reported by NCRHRP that occurred between 2010 and 2017.[12] A geographically diverse set of ten states representing the four census regions were selected from the list of closures, each with more than one hospital closure. To allow for a better assessment of the longer-term impacts of closures, interviews were conducted two to eight years following the hospital closure.

Interviewees were selected through a two-stage process employing the snowball technique. In the first stage, state level interviewees (SLIs) (representatives of State Offices of Rural Health (SORH) and State Hospital Associations (SHA) were interviewed. As part of the interviews, interviewees were asked to identify two communities and relevant key informants in their state where hospital closure had negatively affected access to health care services or where the community had demonstrated innovation in providing health care access following hospital closure. In the second stage, local community interviewees (LCIs) were interviewed including local community government officials (GOs, e.g., mayors, administrators, councilors) and past hospital administrators (HA).

We reviewed media coverage and published stories to validate and identify any recent changes in the closure status of selected hospitals. An interview protocol was developed based on a review of academic and grey literature on hospital closures and was approved by the University of Iowa Institutional Review Board. The interview guides for local and state informants are appended. Members of the research team interviewed respondents via telephone. On average, the interviews took one hour to complete. Interviews were recorded (with consent) and transcribed using Landmark Associates, Inc transcription services. Using a thematic analysis approach, five project members analyzed transcriptions separately to identify broad and detailed themes. After addressing all discrepancies, the key codes were consolidated and agreed upon by all team members. The agreed upon codes were used to develop a codebook, which was then reapplied to all the interviews to categorize quotes into themes.

Major themes from the analysis include: 1) precipitating factors leading to closure;2) community and hospital initiatives to avoid closure, 3) immediate and long-term impact of the closure, 4) fate of the facility itself, 5) alternative care delivery models, 6) changes of hospital ownership, and 7) state and county response to the closure.

Results

Major themes from the analysis include: 1) pre-closure conditions; 2) Community impacts; 3) health system impacts; 4) minimal or no impact; 5) community and state actions; 6) health system actions; 7) emergency medical services actions.

1) Pre-Closure Conditions

Hospital negative profit margins were frequently cited as the proximate cause of closure. Contributing factors included unfavorable patient characteristics, low patient volume, unprofitable payer mix (publicly insured and under-/uninsured patients), poor management (quality of care and regulatory noncompliance), overambitious investment (services/facility upgrades), and payment policies.

> *"We were left, mostly with poor, elderly, indigent-care patients, meaning they couldn't and didn't pay their bills and weren't on Medicaid." [LCI-HA]*
>
> *"For some of these hospitals, their daily cash on hand might be three to five days." [SI-SORH]*

Hospital closure with no prior notice came as a shock for some rural communities. Seven interviewees reported that the hospital closure happened suddenly, leaving little room for the community to intervene.

> *"That happened so quickly, there wasn't an effort to—an ability to mobilize quickly. They basically shut down and let folks go." [SI-SORH]*

However, some hospitals did inform the community about the closure in advance and involved them in planning an appropriate course of action. These events highlight the importance of effective communication and community engagement in the closure of hospitals.

> *"This was a very well-planned and thoughtful process of designing facilities and services that meet the needs of this community." [SI-SHA]*

Aging and outdated facilities with inadequate capacity to provide a full range of hospital services was also cited as a reason for the low utilization of hospital services, adding to the hospital's financial hardship. Some of the closing hospitals were being bypassed for other nearby facilities by financially able, younger, commercially insured rural residents. The opportunity to access all forms of care, receive diagnostic services using the latest equipment, and see a variety of providers seems to override the nostalgic appeal of the long-serving but now struggling rural hospital. In addition, challenges in recruiting and retaining providers, including physicians and specialty providers, affected hospital viability.

2. Community Impacts

Hospital closures negatively impacted local employment and the economy, with many local businesses (e.g., real-estate agencies, grocery stores, restaurants, schools, pharmacies) experiencing adverse outcomes. This led to a decline in the local tax base and revenue, which, in turn, reduced community service expenditures, making the community less attractive for living and attracting new investment.

> *"It's obviously going to affect our hotel, restaurant, convenience store, and gasoline station revenue." [LCI-GO]*

Hospital closures had negative impacts on the local health care labor force. Four interviewees reported that their rural communities faced challenges in recruiting and retaining nurses, physician assistants, physicians, and specialists after hospital closure. Additionally, five interviewees reported a loss of health care professionals after a hospital was closed, increasing the burden on remaining health care facilities/providers.

Rural hospital closure had psychological impacts at personal and community levels, including anger, loss of identity, and insecurity. At least eight interviewees felt that their identity as a community had been compromised.

> *"I think there was a psychological impact on the community of not having readily available care." [SI- SORH]*

> *"Having to give up that service is breaking that invisible bond between local residents and their local hospital that's so important to a community, to its current and future growth." [SI-SHA]*

At least three interviewees mentioned that the loss of the local hospital also led to the loss of age diversity in the community.

> *"Talented youth that could have stayed in our community, with the loss of the hospital, how many are going to stay? They've got to go somewhere." [LCI-GO]*

Affected communities utilized local media outlets to express their frustrations and concerns during the period leading up to, and after, the closure. Several interviewees reported having been stressed due to hospital closure. This stress was expressed through community-level resistance activities such as protests to the closures.

> *"The backlash, the impact, and the stress were extraordinarily high. It was statewide news for a long time. Lots of negative press." [SI-SORH]*

3) Health Systems Impacts

Hospital closure disproportionately affected low-income, publicly insured, uninsured/underinsured, older adults, pregnant, and sicker populations. People requiring regular care, inpatient care, acute care, or emergent care with no transportation were frequently identified as heavily affected populations. *"It's probably a bit tougher for the older and the less well-off population, and those people having to travel." [SI-HSA]*

> *"Especially those who are low income without any source of coverage. Those folks are probably the ones that are affected the most." [SI-SORH]*

> *"They don't have the transportation to go elsewhere." [LCI-HA]*

Twelve respondents reported that hospital closure resulted in rural communities' fragmentation of health care services. The most concerning impact was the lack of timely and regular access to emergency and medical care, as mentioned by many interviewees. Lack of routine or emergency care was especially frightening for rural communities that experienced longer travel distances and time to the nearest hospital. Many respondents cited transportation issues in affected rural communities, especially for disadvantaged and vulnerable populations like older adults.

> *"That life-saving emergency department is farther away. Those seconds or minutes can mean the difference between life and death. Our state road to the closest hospital for emergency care is actually closed several times a year due to flooding." [LCI-GO]*

Additionally, many interviewees reported an increased burden on emergency medical services (EMS) and transportation services, including increased demand, low availability, and increased expenses of EMS services. Hospital closure was also associated with losing specialty services, especially obstetrics, labor and delivery, long-term care, and surgical services.

4) Minimal or no Impact

Several respondents reported that rural communities experienced either minimal or no impact from hospital closure because of the continued availability of primary healthcare services in the community, the existence of bigger hospitals in neighboring communities, and the development of new healthcare delivery approaches.

> *"I don't think there's been a huge impact. There are a lot of medical care services available in surrounding areas." [SI-SORH]*

> *"They went through a very structured process to determine needs of the community and redesign the health care based on those needs. They integrated with the health care system across the region and were able to redesign the long-term care in the community." [SI-SHA]*

> *"The new system is sustainable and functional. It may be just part of a changing health care landscape". [SI-SORH]*

There were other reports of positive effects of hospital closures in rural communities, especially where utilization had dwindled. Nearly all respondents reported reconfiguring healthcare delivery after closures led to the opening of newer healthcare facilities, improvement of EMS and nursing home services, and addition or retention of specialty services and providers.

> *"From a positive perspective, the health care district has emerged and now provides more accessible services to the community. An FQHC* [Federally Qualified Health Center] *was brought into town. And they obviously serve all patients. Added providers in town. We have a dentist. We have a private group so there are just more services that are available to people. That FQHC will also be building a brand-new, state-of-the-art facility here in town." [LCI-GO]*

5) Community and State Actions

In cases where a rural community was informed about the impending closure, preventive measures were attempted to forestall the event. Some steps included searching for buyers/investors, collaborating and consolidating with other hospitals or a larger health care system, searching for new business opportunities, reducing expensive services, upgrading hospital infrastructure, adding or enhancing specialty and other ancillary services, reducing staff and providers, and transitioning into different health care delivery models.

“We’re recruiting additional local staff, but also having to contract out with staff from sometimes three hours away to maintain emergency room coverage.” [LCI-HA]

“I think that the city, the county, and private individuals did a great deal to support the community in fundraising. I think they had come up with $2.7 million from various sources.” [SI-SORH]

“We conducted a fairly extensive survey through the entire district ... to determine local needs of the people, ways they accessed care, and barriers to accessing care.” [LCI-GO]

As hospital closures became imminent, communities and hospitals reached out to their respective state authorities to search for effective solutions. Some communities conducted fundraisers or received financial support from the state to reconfigure or build new health care facilities. Two communities received funds from state resources to support or build a health care facility designed to meet the needs of the local community. Actions undertaken included extending the validity of the hospital license for a certain period even after closure, providing a tax credit for those who provided financial support, appropriating funds, allowing hospitals to transition into freestanding EDs with surgery and obstetric services, and increasing taxes to provide financial support to at-risk hospitals. A few interviewees reported that a robust State Office of Rural Health was better equipped to work with struggling hospitals and respond to closures.

6) Health System Actions

Many respondents reported that rural communities and health care organizations shifted their focus to primary and urgent care services following rural hospital closure. The opening of urgent care facilities, free-standing EDs, FQHCs, health care districts, community health centers, outpatient centers, ambulatory surgery centers, and clinics were examples of this shift. Additional changes included increasing primary care services in existing facilities, extending opening hours at urgent/primary care centers, and collaborating between different health care facilities.

Other community responses included utilizing the hospital building and assets by other existing health care organizations and initiating training programs for nurses, physical therapists, and other health care professionals to support community health care needs. In addition, several respondents highlighted the adoption or expansion of telehealth programs to fill health care gaps. While one community cited difficulty adopting a telehealth program due to a lack of state reimbursement provisions, another community received a telehealth/tele-behavioral health grant for expanding telehealth services.

“Building a different model that was not a hospital, but instead more of an extended primary care with urgent care and a helicopter pad. Not a formal emergency room. We need extended hours for urgent care, because if folks have a sinus infection or something like that, they'd have to drive a really long distance.” [SI-SORH]

Multiple communities reported that larger health care systems acquired closed hospital facilities to provide health care services, adopting different health care delivery approaches per community needs.

"After it closed, I think that's when the Health Care District tried to find ways to utilize the asset of the building. Ultimately, they worked with a private vendor who is contracting with [the county] directly to provide mental health services." [LCI-GO]

Several respondents reported contractual arrangements with specialty services, mergers, and collaborations with neighboring health care facilities and communities. Hospital closure created new demands and opportunities for providers. Respondents reported adding or expanding services and operating hours, and recruitment, and starting training programs for nurses, physical therapists, and other health care professionals. Participants highlighted the active engagement of rural communities in conducting surveys, meetings, and fundraising events.

"[The] Federally Qualified Health Center has been able to hire a new pediatrician. They've opened up another early childhood development center of excellence." [SI-SORH]

"The health care system is developing major relationships with the university for health sciences ... supports [a local college], is training nurses and physical therapists and other types of health professionals to support the needs of their system across the region." [SI-SHA]

In one rural community, the hospital was repurposed into an adult behavioral health facility with 28 beds, addressing addiction treatment needs in that community and providing employment opportunities. In another state, a rural community converted the hospital into an emergency facility that could keep patients for up to two days, meeting local needs.

7) Emergency Medical Services Actions

Rural communities observed major changes and adjustments in EMS following hospital closure. After closures, the most vulnerable patients heavily relied on EMS to fulfill their health care needs. The increased patient volume and workload added to travel duration and subsequently prolonged the response time of ambulance crews in rural communities. Many interviewees stated that rural communities had to expand their EMS resources and staff to cope with this increased demand. Rural communities added ambulances, improved their ambulance services, recruited more paid EMS staff, added local and out-of-community staff, and increased staff work hours to meet the increased demand for EMS. In addition, the use of private ambulance services and nonemergent transportation grew. Collaboration with the fire department, the public health department, the police department, and neighboring communities was another strategy to fill emergency service gaps. Other strategies included forming a volunteer transportation support group, establishing a paramedicine program, creating a procedure for changing an ambulance route, providing 24-hour paramedic services, arranging for at least one on-site ambulance in the community, and allocating funds for ambulance services.

"Negotiated with the big tertiary hospital … to have two full-time ambulances 24 hours a day, seven days a week. That's what they used for emergency services for a year and a half. The fire department was involved. The emergency medical officer and the public health officer were involved. The police were involved in some of the stuff." [SI-SORH]

"We saw the number of ambulance transports quadruple." [LCI-HA]

"They've put quite a bit of effort into retooling the ambulance service and making that more robust and making the trip—the 12 to 15 miles up the road—a little bit easier for people." [SI-SHA]

Discussion

This study explored multiple community experiences beyond a year after the closure of rural hospitals in the US. Although participants described the negative impacts of hospital closures on their community, some appreciated several positive impacts. Changing demographic and economic patterns precipitating hospital closures also created opportunities for new health care models. In the aftermath of the closure of hospitals with aging structures, low patient volumes, and lack of funds, the replacement models were much-needed alternatives.

Coping with the ripple effects of rural hospital closures requires joint efforts from health care providers and community leaders. The adaptation experiences of different demographic groups are difficult to compare for several reasons. The closures have mostly affected older and poorer populations. Even though at least one year passed after closure, many of those residents felt abandoned, hopeless, and powerless. Lack of transportation, inability to drive for long periods, and increased costs have made transportation an essential issue for these populations. Although volunteer groups have helped serve some of the affected populations, dwindling numbers of younger people in rural areas have limited volunteer capacity.

Where EMS services have also been used as proxy transportation services for nonurgent cases, the risks of emergency cases being left unattended for extended periods have increased. Local authorities have seen a spike in the usage and costs of EMS services in hospital closure communities.

While the consequences of losing hospital inpatient services can contribute to a downward spiral in rural communities, adaptive responses can maintain and even strengthen essential local services that are better suited to fulfill the needs of affected communities. Interviewees described several adaptations that were effective in their communities. Specific community characteristics determined the nature of the response, demonstrating that there is no one-size-fits-all solution. In some communities, facilities were able to reconfigure and continue offering essential and even new services. Conversely, where the local population had less flexibility and conversion options, services were lost when the hospitals closed. These findings are consistent with previously published literature regarding increased travel distance and loss of ED services.[18,19,36,37] Innovative solutions like telehealth have mitigated some staffing issues in some communities but not others due to cost and other factors. Each community has significant variations in socio-economic circumstances, demand and supply, and adaptation efforts, making comparisons challenging. Communities that experienced closures also varied in decision-making processes, making leadership a vital concern. Community response was negatively affected where there was a lack of experienced hospital administration.

Although hospital closures may unfold differently over time, the findings of this study provide important insights into community perspectives regarding closures. Rural hospitals remain the primary source of local health services and have substantial community economic and cultural impacts. However, there is a growing recognition that newer health care models customized to the local context are essential in rural communities. Many of the closed hospitals in this study reopened as urgent or primary care facilities and have been able to meet the community's needs more efficiently. Full-service hospitals with

low occupancy rates may not be sustainable, and there needs to be a realistic needs assessment in many rural communities. Micro-hospitals with fewer inpatient/observation beds and more focus on outpatient/urgent care may more appropriately meet health care needs in rural communities. From a financial perspective, the challenges in payer mix and patient volume can only be addressed through changes in payment design, which is beyond the scope of rural hospitals alone.

Changes to Medicare and Medicaid payment policies can be leveraged to support alternative means of supporting financial stability for rural hospitals. For example, the global budgeting demonstration in Pennsylvania enables hospitals to make adjustment to their service mix while being assured of consistent funding.[38] State and federal financial support for telehealth services, could be beneficial in strengthening rural hospital finances and improving access to care.[12,39] Furthermore, different programs offered by the Federal Office of Rural Health Policy provide technical assistance to hospitals at risk for closure.[40] Finally, perhaps the most dramatic example of government responses to the closures of rural hospitals is the new Rural Emergency Hospital designation effective in 2023,[41] permitting hospitals to be reconfigured as institutions providing emergency, observational, primary care but no inpatient services. While this may provide an option for hospitals to maintain some services in rural communities in the avoidance of complete closure, but it may also create additional workforce and other challenges. [42]

The study has some limitations. First, the number of interviews per community and the number of included communities was limited. Still, our interview sample included community and state informants from different affected communities, representing a broad sense of the effects. Second, some interviewees were not directly involved with the closures and could only provide insights they gleaned from information passed on to them. Their responses might differ from those of community members who experienced the closures firsthand.

Conclusion

This study focused on the aftermath of rural hospital closures. The findings are both discouraging and encouraging. In affected communities, we observed adverse consequences similar to those reported in other studies. However, in some communities closing one type of facility (inpatient hospital) precipitated actions to open alternatives.

Rural hospitals are vital resources for their communities. Sustaining that role takes a community effort and may lead to the development of new service configurations, as seen in several of the communities reported in this study. Our findings provide unique insights into the diverse ways communities respond to hospital closures. Moreover, since new adaptive health care models have been successfully implemented in some communities, our results could inform hospital administrators and rural communities in their efforts to sustain existing rural health care systems. Context-specific solutions might not be universally generalizable, but these adaptative strategies are apt and relevant to many rural communities. Further research is needed to investigate the effects of such changes on sustaining essential health services and health outcomes in rural communities.

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Appendix 1: Rural Hospital Closure
Local Community Representative Interview Guide

WELCOME

Thank you for agreeing to participate in this interview. We believe that the experiences, thoughts, and suggestions you share today will be very valuable for helping us build an understanding of the impact of hospital closures on rural communities.

Remember that we want to hear about the [NAME OF HOSPITAL] closure that occurred in [YEAR]. We want to hear your observations about the circumstances surrounding the closure and the community response. There are no wrong answers, and you can quit the interview at any time. We are audio recording this interview for information collection purposes only. We will not link your personal information with your responses, nor will we share your direct responses with anyone.
Can we begin?

CAUSES

1. Can you give us a sense of the local economy in [community]? What was the community and hospital like before closure?
   a) Financial Situation
   b) Population Characteristics
   c) Community Characteristics
   d) Hospital Characteristics
   e) Local Business
   f) Insurers and Insurance Policies
   g) Others

2. What were the primary precipitating factors that led to hospital closure in [community]?
   a) Economic factors
   b) Hospital-specific factors
   c) Community factors
   d) Federal and state regulatory requirements and other policy-related issues (e.g., PPACA, lack of Medicaid expansion)
   e) Market characteristics
   f) Others

3. Were there any actions taken by [community] to try to avoid closure? What did [community] do to avoid closure?

4. Were there any actions taken by [hospital] to try to avoid closure? What did [hospital] do to avoid the closure?

AFTERMATH

1. Based on your experience and observation, how do you think closure impacted the community?
   I. What were immediate effects of closure on the community?
      a) Transportation/travel issues?
      b) Ambulance services?
      c) Access to care?
      d) Ripple effects on other health care services (e.g. hospitals, outpatient providers) in neighboring communities?
      e) Economic impact?
      f) Loss of other industries?
      g) Effects on insurance coverage and premiums?
      h) Health outcomes?
      i) Demographic disparities?
      j) Effect on continuity of care?
      k) Community protest/push-back?
      l) Migration of people
      m) Others?

   II. Has the closure had longer-term impacts on the community?
      a) Transportation/travel issues?
      b) Ambulance services?
      c) Access to care?
      d) Ripple effects on other health care services (e.g. hospitals, outpatient providers) in neighboring communities?
      e) Economic impact?
      f) Loss of other industries?
      g) Effects on insurance coverage and premiums?
      h) Health outcomes?
      i) Demographic disparities?
      j) Effect on continuity of care?
      k) Community protest/push-back?
      l) Migration of people
      m) Others?

SOLUTIONS

1. *Only if applicable*: According to the data that we have, this facility was converted for use as a [facility type]. Is that correct? Is that still the case?

2. Were other alternative care delivery models considered before or after closure? Why or why not?
   a) Freestanding ED?
   b) CAH designation?
   c) Urgent care center?
   d) Rehabilitation center/SNF?

e) Open new or expand existing primary care services?
f) Others?

3. Were facilities, either within the physical plant of the hospital, or elsewhere in the community, expanded/re-purposed to continue to provide services in the community?
    a) Extension of clinic open hours?
    b) Radiology or laboratory services for urgent care center/PCP use?
    c) Emergency services/ambulances?
    d) Others?

4. Did the health care organization managing the hospital collaborate or explore affiliations with other organizations in the community after the hospital closed? Were they successful ventures?
    a) Fire department?
    b) Nearby hospital?
    c) Local county officials/County Board of Commissioners?
    d) Others?

5. What steps has the community taken to find solutions to any health care access issues after the hospital closed?
    a) Fundraising
    b) Discussion with state/county officials
    c) Health promotion activities
    d) Seeking financial support

6. Was there a state or county response after the hospital closure to facilitate access to health care services?
    a) Tax Increase
    b) Policy Reforms
    c) Financial Support
    d) Health Promotion Programs

CONCLUSION

1. Considering the state of health care services in the community prior to hospital closure compared to the state of health care services now, please summarize what you think the community has lost. Have there been any health service “gains” as a result of the closure?

2. Is there anything we did not ask you regarding the impact of the hospital’s closure on [community] or the community’s response that you think would be important for us to know or understand as we analyze the feedback from our interviews?

We would like to thank you for your participation. We plan to submit this work as part of a manuscript. If you would like to receive a copy of the forthcoming work after publication, please let me know.