

HOSPITALISTS AND THE RURAL HEALTH CHALLENGE

The Rural Health Challenge

Rural residents are in poorer health than those living elsewhere and have less access to treatment, partly because so many rural hospitals and health clinics have shuttered in recent years. Between 2005 and 2020, over 175 rural hospitals closed, 17 of them in 2020 alone. As many as a quarter of the remaining rural hospitals may be at risk of closing, according to some sources. In addition, an estimated 530 rural health clinics closed between 2012 and 2020.

The reasons for the closures are complex, but often boil down to economics. Rural hospitals generally have tighter profit margins than urban hospitals. Hospitals'

revenues have been decreasing due to a number of trends, one of which is the growing number of rural patients who bypass their local hospital and seek care in an urban setting instead. Rural hospitals in the US experienced an average change in average daily census (ADC) of -13% between 2011 and 2017.

Those hospitals and clinics that remain and are able to survive have trouble attracting and retaining medical professionals. The shortage of care providers is likely to only get worse. More than 25% of primary care physicians in rural areas are 60 or older, compared with 18% in urban areas, according to a 2019 article in the New England Journal of Medicine.

The Importance of Hospitalists

In addition to primary care physicians and specialists like orthopedists and neurologists, there is a growing shortfall in the availability of inpatient care specialists or hospitalists. One of the keys to maintaining a strong in-patient hospital system is to have hospitalists available 24/7 to admit, plan care and treatment and ensure transfer of patients to the medical floor as efficiently as possible.

Access to a hospitalist who can cover the night shift at a hospital has been shown to be extremely beneficial for the hospital staff, nighttime covering nurses and patient care as a whole

The shortage of rural hospitalists is also of concern because hospitalists can play a key role in preventing the hemorrhage of specialists and admissions to urban hospitals. Hospitalists are also important when it comes to recruiting primary care physicians into rural communities.

Today, there are over 57,000 practicing hospitalists in the United States, according to the Society of Hospital Medicine. Most are employed by a hospital or a hospitalist contracting firm.

It has been estimated that implementing the hospitalist model in the 1,350 CAHs in the US (93% of which are located in rural communities) would require 10% of the hospitalist work force to cover 3% of all hospital admissions. This figure does not include the 4,477 rural health clinics that also offer a potential role for telehospitalists.

CHALLENGES FACED BY HOSPITALS AND HOSPITALISTS

Health and hospital systems are finding it increasingly challenging to hire and retain hospitalists. A hospitalists job is demanding and stressful. Most hospitalists on average have about 10-12 patients under their care at any given time. Very few hospitals provide the opportunity to new hospitalist hires for mentoring or investing in professional growth. The relationship between the staff and the administration, collaboration with nursing staff and how the hospital manages a high patient census is key to determining staff recruiting and retention.

Sensitivity to work-life balance and for hospitals to provide adequate off work time and attend to personal needs of physicians also plays a part in hospitalist recruiting and retention.

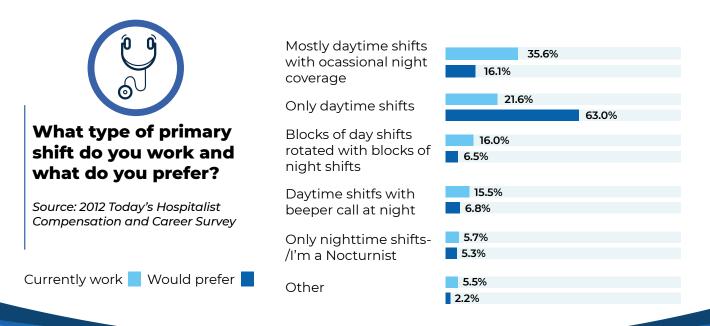
Nocturnal coverage or nighttime coverage is an added concern in hiring for physicians. At times it is



not implicit in the hiring contract if they will be required to cover a night shift and they are called upon to cover at the last minute.

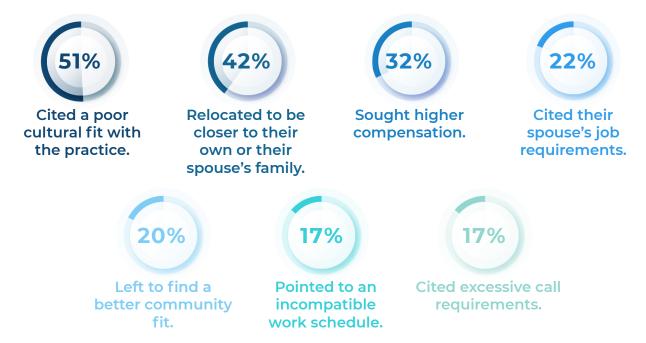
As a result, they absorb most of the workload during the day and night and this becomes a leading cause of physician burnout and job dissatisfaction. This is more so for smaller rural or community hospitals where nighttime coverage is scarce and the flexibility to cross-cover from home may not an option.

In another survey where doctors were asked what type of work shift they would prefer, 63% of hospitalists said they would prefer to work only days.



Hospitalists want a better quality of work and work-life balance and leave their jobs when they feel unable to cope with the stress, work hours, billing and paperwork. Clinical autonomy and control over their work environment have been shown to be another driving factor in physician job satisfaction.

Common reasons why a physician will leave their job identified in a survey conducted amongst physicians were;



Other reasons are not being able to have the autonomy over working hours, long shifts, overnight work load, admissions and transfers. (Jack Valancy, "Recruiting and Retaining the Right Physicians" Family Practice Management Oct 2007 https://www.aafp.org/fpm/2007/1000/p28.html

Potential Benefits of Telehospitalist Services to Rural Hospitals

The telehealth/telemedicine model can be used to extend the services of a hospitalist to rural hospitals that otherwise might be unable to obtain or afford them. This can improve outcomes and bring the benefits of hospital medicine, including decreased hospital spending, to smaller communities. For telehospitalists programs that cover multiple sites, the cost is significantly less that employing individual on-site hospitalists to do low-volume work

According to a recent study (Tyler L. Malone, George H. Pink, George M. Holmes, "Decline in Inpatient Volume at Rural Hospitals", Journal of Rural Health, first published 31 December 2020] rural hospitals in the US experienced an average change in average daily census (ADC) of -13% between 2011 and 2017. The same study found that hospital characteristics (e.g., census region, Medicare payment type, ownership type, total margin, whether the hospital was located in a Medicaid expansion state) and patient population characteristics (for example, percent of population in poverty) were significant predictors of inpatient volume trends.

There have been relatively few studies that attempted to relate telehospitalist services to trends in ADC, and most of these studies suffer from various data or analytical limitations. For example, "The Impact of Telemedicine Intensivist Support and a Pediatric Hospitalist Program on a Community Hospital", a study by Jaclin M. LaBarbera, Miles S. Ellenby, Paul Bouressa, Jill Burrell, Heidi R. Flori, and James P. Marcin, (published online in Telemedicine and e-Health on 30 Sept. 2013 concluded that telemedicine consultation between pediatric intensivists and community hospital physicians combined with a pediatric hospitalist program at the community hospital has the potential to reduce the need to transfer patients. Transfer rates were 85.7% - 100% lower after implementation of telemedicine consultation. However, it is difficult to generalize from these results because of the small size of the sample on which they are based.

The problem of low/declining inpatient census is part of the issue of rural hospital bypass, in which rural residents start out by seeking care directly from large urban hospitals. A limited number of rural hospital bypass studies have been published in the last 25 years. Most rural hospital bypass studies using quantitative data (i.e., claims data) were limited to a few states and found bypass rates that ranged from 25 percent to 50 percent.

A 2020 study (Alana Knudson, Shena Popat, Wen Hu, Curt Mueller, Victoria Hallman, "Examining Rural Hospital Bypass for Inpatient Services". Centers for Medicare and Medicaid Services, December 2020) used a much larger sample data (Medicare FFS) to show that rural hospitals where inpatient telehealth consultation services were available had significantly lower avoidable bypass. Rural hospitals that used telehealth services had an average bypass rate of 26% compared to 33% for facilities that did not use telehealth services (p<0.005). While this report is based on a larger population than [2] or [3], the data on which it is based do have some limitations. In particular, the analysis is limited to inpatient acute hospital care for rural FFS Medicare beneficiaries in CY 2018 and represents only a portion of the patients served and services provided by rural hospitals in their communities.

LaBarbera et al. (see above) also provide a qualitative discussion of the role of telehealth in increasing communities' use of their local hospitals. The authors note that telehealth tends to increase the community's faith in the skills and abilities of the local rural hospital, particularly in those facilities staffed by advanced practice clinicians.

Obstacles to Implementing a Telehospitalist Service

Obstacles at the Physician Level

Despite the telehospitalist model's advantages, there are various potential obstacles that must be addressed in order for it to succeed, both from the physician's point of view and the hospital's. Take the example of Dr. AJ, a hospitalist based in California.

Dr. AJ has been practicing hospital medicine for several years and finds her role as a hospitalist rewarding and fulfilling professionally. Recently, in the wake of COVID-19 things have changed drastically. She suffers from chronic exhaustion, work fatigue and worrying about her and her family's health due to their constant exposure to the risks of COVID.



Dr. AJ says that she would welcome the option of working remotely as a telehospitalist to distribute her patient workload, the redundancy of patient care such as paperwork and billing and spend more time at home with her family. She is of the view that many hospitalists are open to the idea and if given the opportunity to work remotely with a trained team and how they will be billed and/or paid for their time.

However, Dr. AJ does have some concerns about working remotely as a hospitalist. One of her apprehensions is about nurses delivering care at the hospital and the reliance on the them when managing care remotely for physical examinations, processing orders and working with the new technology of remote synchronous patient-physician interactions. She is particularly concerned about what happens when a patient becomes acutely unstable

or "crashes" in the middle of the night, or when there is a malfunction in the AV system.

Other hospitalists express worries about how the nurses will transmit the relevant information in the middle of the night when physicians need to make a vital decision about patient care, relying on the nurses to manage the tech aspect in terms of the two-way communication b/w patient and doctor, nurses' level of training and how each nurse may have a different aptitude and level of expertise/clinical acumen by the bedside and communicating with the doctor.

There is also the challenge for the physician of interacting with different EHR systems. Becoming agile with a single EHR is challenging enough, but dealing with several systems in a single shift can be extremely trying.

There is the less obvious, but still significant fact that not all hospitalists are a good match for rural practice. Physicians working as hospitalists in rural areas need to make do with less: to research issues more themselves, consult fewer subspecialists and perform a broader range of procedures. As one hospitalist expressed it, "Sometimes you have to be more open-minded about what you can do for a patient," The same hospitalist expressed the belief that many inpatient consults that take place in larger centers happen simply because specialists are available. (Deborah Greensway, "Can hospital medicine save medical care in the heartland?" Today's Hospitalist April 2007 https://www.todayshospitalist.com/Can-hospital-medicine-save-medical-care-in-the-heartland/)

Obstacles at the Hospital Level

From the hospital's perspective, obstacles to the adoption of telehospitalist services until recently have included reimbursement and licensure. Fortunately, both of these problems appear to be on their way to resolution. At least 35 states have passed telemedicine parity laws to support equal reimbursement with face-to-face visits. In addition, 24 states have joined the Interstate Medical Licensure Compact (IMLC). The voluntary IMLC program provides an expedited pathway to licensure for qualified physicians who practice in multiple states, in order to increase access to care for patients in rural and other underserved areas and to allow consultation through telemedicine.

Another problem for some rural hospitals is inadequate broadband access. While this is a long-standing problem, the COVID-19 pandemic has pushed many rural hospitals toward the breaking point. To address the immediate needs of rural populations, some telecommunications providers are working with local hospitals and public libraries to provide Wi-Fi hotspots where cellular services are available.

Longer-term solutions are also in progress, such as the USDA's Rural Utilities Service and The Federal Communications Commission's Universal Service Fund (USF). Reauthorized in the 2018 farm bill, RUS broadband programs fund infrastructure deployment of broadband and telecommunications throughout rural areas. The USF programs aim to defray the costs of broadband deployment in rural areas. The Coronavirus Aid, Relief, and Economic Security (CARES) Act has allocated \$325 million for broadband infrastructure and telehealth initiatives to combat the current pandemic.

A Model for Telehospitalist Services

A model for providing telehospitalist services is required that will:

- • Utilize hospitalist physicians efficiently and offer work flexibility
- • Enable resourceful use of advanced care practitioners at hospitals, as appropriate
- Leverage technology to increase access to physicians in rural and underserved areas via remote access to physicians made available 24/7 depending on hospital requirements for staffing

The service should be evaluated by the extent to which it

- Reduces the number of patient transfers from rural hospitals to tertiary care facilities
- Decreases the use of locum tenens hospitalist physicians
- Increases hospitalist program productivity measures
- ── Lowers overall staffing costs of full time hospitalists and overnight coverage
- Diminishes hospital acquired infections by providing timely care and efficient discharge planning with remote hospitalists

- Affords better access, faster response time and availability of physicians leading to improved health outcomes
- Increases patient satisfaction measures
- Resolution of patient outcomes in less virtual visits as compared to frequent in person hospitalist visits during length of stay

The provider needs to partner with hospitals in order to build strong professional relationships. They should become a part of the health system and work in collaboration with the management, staff and providers at the healthcare facility. They should be flexible and adaptable to feedback from hospital staff and administration to continue to develop the success of the program. In addition, a strong IT system will be the driving force for implementation of the program.

A conceptual model of such a service includes a remote call center or a command center which is equipped with the technological capability to help staff hospitals with telehospitalists on demand, who can work in tandem with the bedside nursing staff and provide patient care can help alleviate this problem.

These telehospitalists are available when the need arises, are licensed physicians and in some instances can assist with cross coverage when the patient volume allows.

The COVID-19 pandemic has increased the number of care providers suffering from chronic exhaustion, work fatigue and worries about their own and the families' due to their constant exposure to the risks of COVID. Many of these providers are rethinking how they can continue to work as hospitalists yet minimize the negatives.

Working for a telehospitalist company that provides them with the flexibility of working from home, for as many hours as they want to work, and on a predictable schedule, should attract many hospitalists to this model.

A satisfied, productive hospitalist is an asset to the hospital, streamlining admissions and discharges and helping nurses navigate their patient care and load on the medical floor. With the help of a capable IT and governance team, this model can be replicated at rural and community hospitals as well as large hospitals.



Symbian Health