

Chapter 3D

Staffing Patterns and Workforce Strategies Used by CAHs

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Background

The Rural Hospital Flexibility Program (Flex Program) was designed to address two sides of the financial viability formula, the revenue side and the cost side. On the revenue side, cost-based reimbursement provided the primary incentive for most hospitals to consider conversion to a CAH. On the cost side, our findings from the first two years of the Tracking Project¹ are mixed. We have speculated that relaxed staffing requirements would create opportunities for lowered costs, and pursued this assumption in Years 1 and 2 by looking for examples of cross-training and reduced staff. While we found examples of these kinds of cost-saving measures, we also found examples of hospitals that continue to maintain 24-hour nursing staff on unoccupied inpatient wards. The use of the furlough, on low-census days, as a means of saving labor costs, may have a serious liability for rural hospitals. Facing difficulty recruiting and retaining nurses, along with other kinds of clinical staff (such as physicians, non-physician clinicians, nursing assistants, physical and occupational therapists, and lab technicians), an involuntary furlough may create job dissatisfaction.

Many rural hospitals now face workforce shortage problems. The job categories currently reporting the greatest shortages are registered nurses and certified nursing assistants (CNAs)/licensed practical nurses (LPNs), but shortages of lab and radiology technicians are also reported. These problems are the result of several factors. In the case of registered nurses (RNs), inadequate numbers of nurses are being prepared by training institutions to replace retiring nurses, while a significant proportion of the trained workforce chooses not to work full time. Working conditions, including scheduling, are a major contributor to this phenomenon. In the case of CNA/LPNs, the major factors are low wages and lack of meaningful career advancement opportunities, and the resulting high turnover. As these shortages are felt across all sectors of health services, it is likely that wages will increase. This is likely to exacerbate the workforce shortages of some rural hospitals, since wages are likely to rise sooner and higher in urban hospitals, and some portion of the rural workforce will commute to urban employers for those higher wages.

¹ The term “Tracking Project” will be used to describe the efforts of the six organizations involved in tracking the progress of the Rural Hospital Flexibility Program for the Federal Office of Rural Health Policy.

The workforce shortage presents a bitter irony for critical access hospitals (CAHs). With the flexibility to reduce staffing under CAH licensure laws, one might expect the workforce shortage to affect CAHs less than other rural hospitals. However, site visits² informed us that reducing hours when the census is low is not an option for many CAHs because their nurses will move on to other jobs if they are not getting full-time hours or if their work schedules are too erratic. Thus, in many cases, CAHs are not able to take advantage of flexible staffing levels allowed under CAH licensure. The result is that these very small hospitals may remain relatively inefficient, due to the necessity of keeping staff on duty when the beds are unoccupied.

The opportunity to use staff more efficiently is suggested by the phenomenon we refer to as “cross-training,” whereby a nurse or technician is trained to work in at least two settings, and can be moved from one area of the facility to another to accommodate fluctuating demands. We assume that there are more opportunities for achieving efficiency in staffing through cross-training for CAHs that offer a greater array of labor intensive services, such as intensive care facilities, skilled nursing facilities (SNF), assisted living, and a variety of outpatient services such as adult day care, home health, and primary care. Data from last year’s survey of CAH administrators indicate that roughly half of all CAHs surveyed had SNF beds and home health, while as few as 10 percent had an assisted living facility. We found no evidence that these services are being added, dropped or expanded as part of the CAH conversion process. This would suggest that CAHs either are not able to gain efficiency in staffing through these services, or have not been able to add or expand such services due to barriers to such a strategy.

In the current year, we investigated the staffing patterns of CAHs to assess the composition and size of their staffs in relation to the array of services they offer. This chapter reports findings from our analysis, based primarily on a survey of 388 CAHs. In addition to describing the strategies used by CAHs to achieve efficiency and to recruit and retain their staff, we test the hypothesis that a greater array of labor-intensive services leads to greater efficiency.

Research Questions

- What strategies are CAHs using to achieve workforce efficiency, and/or workforce recruitment, retention and training?
- What is the range of efficiency realized by CAHs (expressed as full-time equivalent [FTE] per occupied bed)?

² Members of the Tracking Team conducted site visits to 24 CAH facilities in 1999-2000, and an additional 18 facilities in 2000-2001.

- What is the relationship, if any, between overall facility workforce efficiency and the scope of labor-intensive services (as opposed to capital-intensive services) offered?

Methods

A major portion of this report is descriptive. From November 2001 through early March 2002, a telephone survey was conducted with rural hospital administrators about their experiences and knowledge of the hospital's conversion to a CAH. The questions covered a range of issues, many of which are reported elsewhere in this report. The hospitals included in the survey were initially identified from listings provided by the Center for Medicare and Medicaid Services (CMS) available from the rural health data files at the University of North Carolina Sheps Center for Health Services Research.

CAHs selected for the phone survey included the universe of CAHs that were in operation as of May 1, 2001. This date was selected as the cut off to give a minimum of six months operating time for the hospital administrators to get up and running as a CAH.

The University of Minnesota Rural Health Research Center coordinated the development of the survey instrument with the three other university-based centers involved in the Tracking Project. Following approval from its Internal Review Board, the University of Minnesota provided interview protocol training for survey research center staff and oversight for the survey fieldwork. A field test involving five previously interviewed administrators and five newly identified administrators was conducted in November 2001. Following minor revisions of the survey protocol, additional training was provided for survey research center staff and the full survey was launched in early December 2001.

The interviews were coordinated with a mailing describing the purpose and scope of the project to prospective respondents. In addition to providing background information and contact phone numbers, the mailing included a fact sheet for administrators to complete prior to their phone interview. The fact sheet solicited information used in this chapter related to nurse staffing levels, numbers of beds and outpatient encounters, payer mix, patient days, length of stay, and related figures. The survey was completed in early March 2002 and achieved a 96 percent response rate. For this chapter, our survey asked respondents what strategies they use to achieve staffing efficiency and to recruit and retain staff. Since we had observed cross-training in the site visits, often in the form of a policy requiring nursing staff to be trained to be able to work on more than one level of service, we asked respondents what barriers they encountered in implementing this strategy.

We addressed the efficiency achieved in staffing by calculating FTEs per occupied bed for all CAHs that completed the Year 3 survey and the fact sheet that was sent to all survey respondents. To determine whether greater efficiencies are, in fact, correlated

with a wider array of services, we created an index measuring the scope of labor intensive services and computed a zero order correlation between that index and our indicator of staffing efficiency.

Findings

Of 388 CAHs responding to the survey, 217 or 56 percent identified difficulties recruiting and retaining nursing staff as a major problem. Site visits by some members of the Tracking Team also found that administrators had a particular problem recruiting radiation technologists.

The approaches and strategies hospital administrators use to address their staffing issues fall into two general areas:

1. Strategies designed to improve efficiency or reduce costs, and
2. Strategies designed to improve recruitment of clinical staff, either by participation in training programs, or by participating in or initiating programs to encourage young people to pursue health careers.

Table 1 presents findings regarding efforts to improve efficiency. The survey supports our finding from the site visits regarding cross-training: more than half of the hospitals surveyed reported using this strategy. By contrast, only 8 percent reported using employee furloughs.

Table 1. Strategies Used by CAHs to Achieve Staffing Efficiency

	Number of CAHs	Percentage
Cross-training	206	53
Employee furloughs	31	8

Despite the fact that a majority of respondents are using cross-training, many reported barriers to instituting this approach. The most common barrier was the limited clinical capacity of staff to work in multiple areas (Table 2). Legal barriers such as state regulations or labor agreements were also mentioned by a few respondents, but were much less common. It would appear that increased clinical capacity is needed, achieved through expanded training efforts, if more CAHs are to optimize the use of cross-training.

Table 2. Barriers to Cross-Training

	Number	Percentage
Limited clinical capacity	148	39
State regulatory barriers	29	8
Labor contracts	15	4

As rural hospitals face workforce shortages in many areas of the US, they will also be facing a decreasing and aging population. Moreover, many of these communities are seeing their young people migrate to larger communities in search of jobs because they are finding limited local employment options. To counter this trend, forward thinking rural hospitals and rural communities are developing initiatives to recruit local young people into the workforce starting at an early age. In addition, many hospitals offer training programs on their premises, primarily for CNAs. The most common strategies employed by CAHs that responded to our survey to “grow your own” workforce were health career promotions (39%) and on-site training programs (32%) as shown in Table 3.

Table 3. Strategies to “Grow Your Own” Workforce

	Number	Percentage
Health career promotions	150	39
On-site training for LPN/CNA	124	32

Rural hospitals are generally not equipped or certified to provide training for most licensed health professions. To address the shortage of some of these workers, we asked if they were participating in training programs by offering clinical rotations for students. The results, shown in Table 4, indicate that a significant number of CAHs are using this strategy to ensure a supply of workers.

Table 4. CAHs Offering Clinical Rotations for Workforce Trainees

	Number	Percentage
LPN	173	45
CNA	169	44
Lab Technician	107	28
Radiology Technician	109	28

Workforce efficiency is traditionally expressed as FTE positions per occupied bed. Hospitals with a very low census that are unable to furlough nursing staff, or use them in

outpatient or long term care settings, will exhibit a relatively high ratio, while those with a higher census and more flexibility to move staff around are likely to have a relatively low ratio. Since a major portion of hospital services is now provided on an outpatient basis, the number of occupied beds is an outdated measure of hospital volume. We adjusted an “occupied beds” count by weighting it to account for relative outpatient volume, expressed in terms of outpatient visits per week. Using this approach, we calculated an “outpatient-adjusted FTE per occupied bed” ratio. Due to extremely low census in some hospitals, values for this ratio vary widely. Table 5 indicates the four quartiles for this ratio.

Table 5. Quartiles: Outpatient-adjusted FTE per Occupied Bed (N=243)³

	Range
Most efficient	< 12.8
	12.8 – 31.7
	31.7- 78.1
Least efficient	> 78.1

Since a greater number of labor-intensive services should afford more opportunities for cross-training, we examined the relationship between an index of these services and our measure of efficiency. The index was calculated as a simple sum of four services: nursing home beds, assisted living, home health and swing beds. Hospitals with all four of these services were assigned a value of four for the index, and so forth. Treating the index as a categorical variable, using chi-square, and as a continuous variable, using t-tests, we analyzed the relationship between the index and outpatient-adjusted FTE per occupied bed, and found no significant relationship. This would suggest that there is no inherent efficiency in having a greater array of such services. However, the substantial amount of missing data and resulting small sample size affected the statistical power of the analysis.

We also analyzed the relationship between the index of labor-intensive services and several other hospital characteristics. This analysis revealed that hospitals with a greater array of such services are more likely to offer their own training programs ($p < .005$). However, other labor strategies, such as offering clinical rotations or health careers promotions, were not significantly related to the index. Perhaps more to the point, using cross-training as a labor strategy was not found to be significantly associated with this index. We suspect that the problem of narrow clinical skills of nursing staff, identified

³ Data on FTEs, annual patient days, and other detailed quantitative data were gathered separately from the telephone survey on a “fact sheet” sent to each respondent. A substantial number of respondents who completed the telephone survey failed to return the fact sheet, resulting in the loss of 145 cases from the sample.

by 39 percent of survey respondents, may be preventing many CAHs from moving staff from one service to another.

Conclusions and Recommendations

It is clear that a majority of Critical Access Hospitals face workforce problems, including recruitment and retention, compounded by the need to staff their small inpatient capacities efficiently. While it is encouraging to see that some CAHs are responding to these issues assertively, by engaging in training programs and health career development activities, these would appear to be strategies that could and should be adopted by more CAHs.

While we did not confirm our hypothesis that a greater array of labor-intensive services leads to more efficient staffing, we believe that closer examination of staffing patterns of each of these services may reveal strategies that some CAHs are using to make optimal use of staff. The relationship between services offered and workforce efficiency is clearly more complex than can be detected by our methodology.

Clearly, however, using staff in multiple roles raises a training issue that our survey and analyses did not address. A more detailed inventory is needed of the specific skills necessary to remove barriers to cross-training. This would appear to be an appropriate role for Area Health Education Centers (AHECs), perhaps working collaboratively with health professions training programs. It is clear from the number of CAHs involved in training activities that some relationships have already been established between many CAHs and their AHECs. It is also true, however, that the resources available to AHECs to respond to this type of training need vary considerably from state to state. It is likely that many AHECs will be unable to add continuing education of nurses to their activities, given scarce resources and their primary mission of coordinating clinical placements.

Similarly, some AHECs are already involved in workforce development activities in public schools, with programs targeted from K-12. CAHs should inform themselves about these activities and engage themselves with the AHECs where possible. While state policy, statewide AHECs, and health professions educators may be of help in addressing these staffing issues, hospitals and their communities must take the initiative if they wish to have a high-quality, stable workforce in the future.