

NORTH DAKOTA HOSPITAL ASSESSMENT: 2018 REPORT

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North Dakota Healthcare Workforce Group

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TABLE OF CONTENTS

Introduction	3
Figure 1. North Dakota CAH and PPS Hospitals by Geographic Region.....	3
North Dakota Hospitals	4
Figure 2. North Dakota CAHs and Referral Hospitals.....	4
Survey Method	5
Hospital Workforce: FTE, Vacancy, and Recruitment Difficulty	5
Hospital Workforce Capacity: CAH/PPS Employed and Vacant FTEs and Geographic Variation	5
Figure 3. CAH and PPS Hospitals' Total Employed and Vacant FTEs by Health Profession.	5
Figure 4. CAH Vacant FTEs across Health Professions by Eastern and Western State Regions.....	6
Figure 4a. Ratio of Vacant FTEs per 10,000 Population for CAHs.	7
Figure 4b. Ratio of Vacant FTEs per 10,000 Population for PPS Hospitals.	7
Hospital Workforce Vacancy Rates: CAH/PPS and Geographic Variation	9
Figure 5. Overall Vacancy Rates Statewide (CAH and PPS Hospitals).	8
Figure 6. CAH and PPS Hospitals' Vacancy Rates by Health Profession.	9
Figure 7. CAH Vacancy Rates across Health Professions by Eastern and Western State Regions.....	10
Hospital Workforce Recruitment Difficulties: CAH/PPS and Geographic Variation	10
Figure 8. CAH and PPS Hospitals' Mean Fill Difficulty by Health Profession.....	11
Figure 9. CAH and PPS Hospitals' Number of Months Recruiting by Health Profession.	12
Limitations to Workforce FTE and Vacancy Estimates.....	12
Physician Workforce	12
Primary Care and Specialty Physicians: Totals and Geographic Variation.....	12
Recruiting Physicians: Filling Vacancies and Barriers to Recruitment	13
Figure 10. Importance of Various Barriers to Physician Recruitment in CAHs (n=24/26).....	13
Figure 11. Importance of Various Barriers to Physician Recruitment in CAHs by Region (n = 24/26).	14
Figure 12. Importance of Various Barriers to Physician Recruitment in PPS Hospitals (n = 4/6).....	15
Figure 13. Frequency by Which Each Barrier to Physician Recruitment was Identified as the Primary Concern for CAH and PPS Hospitals (n = 21/26 CAHs; n = 4/6 PPS Hospitals).....	16
Emergency Department Staffing	14
Figure 14. Number of CAHs that Employ Each Physician Type to Staff the Emergency Department (n = 36/36 CAHs; n = 4/6 PPS Hospitals).....	17
Other Hospital Workforce Data	15
Provider Types and Contracted Employees	15
Professions Most Difficult to Recruit	15
Visiting Specialists.....	15
Divert Status	16
Administrative Vacancies.....	16
Hospital Size: Licensed Swing Beds and Census.....	16
Appendices	
Appendix A: Terms & Definitions	18
Appendix B: North Dakota Hospital Workforce Survey.....	19

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INTRODUCTION

In the winter of 2017, the North Dakota Healthcare Workforce Group began to develop a new survey on hospital and workforce issues among Critical Access Hospitals (CAHs) and Prospective Payment Systems (PPS) hospitals. Data for the survey were collected previously in 2014.

This report presents the findings of the 2018 hospital survey. This resource does not provide a detailed analysis or discussion of results, but instead offers a graphic discourse on the current hospital environment. Output includes aggregate data stratified by geographic region (Northwest, Northeast, Southeast, Southwest, or in some cases, East versus West) and hospital type (CAH or PPS). Corresponding population totals for each geographic region include 163,226 individuals in the Northwest, 118,345 in the Northeast, 259,507 in the Southeast, and 214,315 in the Southwest.

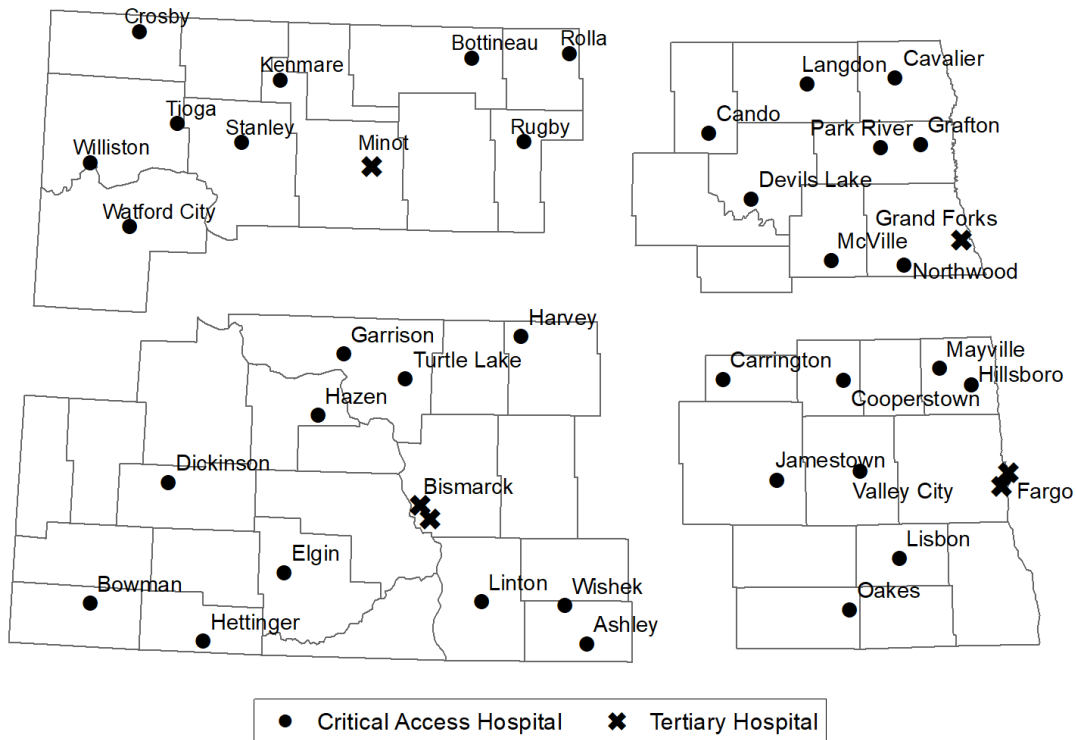


Figure 1. North Dakota CAH and PPS Hospitals by Geographic Region.

North Dakota Hospitals

According to the North Dakota Department of Health, there are 52 hospitals in the state (36 CAHs, six general acute PPS hospitals, three psychiatric, two Indian Health Service [IHS], two long-term acute care, two transplant, and one rehabilitative). Of the above, the 36 CAHs and 6 PPS hospitals were surveyed on their current workforce vacancies, resulting in 42 hospitals (see Figure 1). The final response rate for the survey was 97.6%, with one PPS hospital not participating. As a result, the respective data from 2014 was utilized for the non-participating facility in order to provide the most comprehensive overview possible.

A Critical Access Hospital (CAH) is a hospital certified under a set of Medicare Conditions of Participation (CoP), which are structured differently than the acute care hospital CoP. According to the U.S. Department of Health and Human Services: Some of the requirements for CAH certification include having no more than 25 inpatient beds; maintaining an annual average length stay of no more than 96 hours for acute inpatient care; offering 24-hour, 7-day-a-week emergency care; and being located in a rural area, at least 35 miles away from any other hospital or CAH (fewer in some circumstances). The limited size and short stay length allowed to CAHs encourage a focus on providing care for common conditions and outpatient care, while referring other conditions to larger larger (typically PPS) hospitals.¹

The incentive of CAH designation is that those rural hospitals designated as such receive cost-based reimbursement while larger providers receive a standard fixed reimbursement rate. The unique

system of reimbursement enhances the financial performance of small rural hospitals that were under significant financial strain prior to CAH conversion. The 36 CAHs in North Dakota are located in rural communities. In this report, these hospitals will be referred to interchangeably as either rural hospitals or CAHs.

As mentioned, there are also six large urban PPS hospitals, also referred to as tertiary centers or tertiary hospitals. The terms PPS hospitals, urban hospitals, and tertiary centers will be used interchangeably in the presentation to follow. The large urban hospitals are located in North Dakota's four largest cities; there is at least one in each corner of the state, including Bismarck, Grand Forks, Fargo, and Minot. The six tertiary centers include:

- Trinity Hospital (Minot)
- St. Alexius Medical Center (Bismarck)
- Sanford Bismarck Medical Center (Bismarck)
- Altru Hospital (Grand Forks)
- Sanford Health (Fargo)
- Essentia Health (Fargo)

Each of the 36 CAHs has an agreement with at least one of the six primary urban hospitals. The map in Figure 2 illustrates the referral patterns and/or agreements held between the CAHs and their identified referral centers. While this map is similar to Figure 1 in presenting the geographic regions, Figure 2 highlights the complexity of CAH referral patterns in North Dakota.

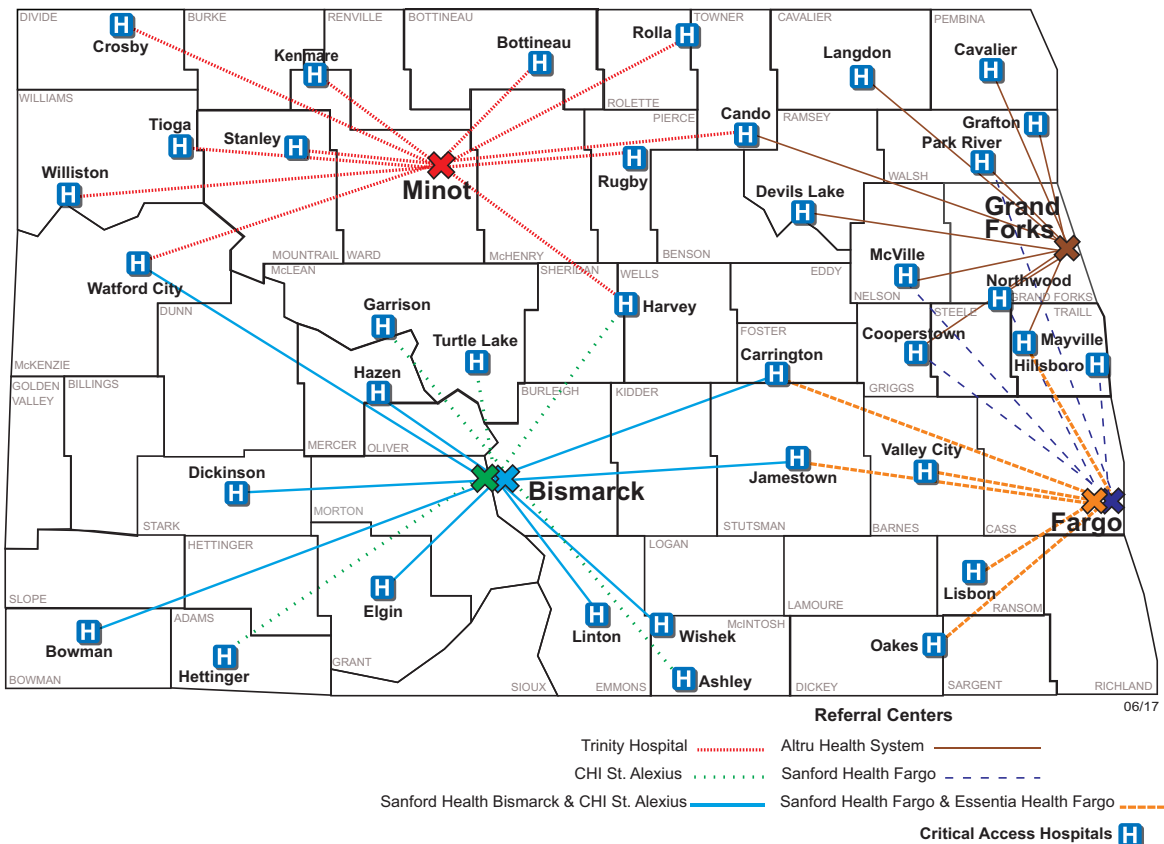


Figure 2. North Dakota CAHs and Referral Hospitals.

¹ <https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/downloads/CritAccessHospfctsh.pdf>

Survey Method

The hospital survey was developed by staff at the University of North Dakota School of Medicine Center for Rural Health (CRH). The previous version of the hospital survey was reviewed and many questions were carried into the current survey. Center for Rural Health staff also modeled the questionnaire after one previously used in Washington.

All 42 North Dakota CAH and PPS hospitals received an electronic survey link through Qualtrics², and were also emailed an electronic copy of the questionnaire; they could choose to respond by either means. Non-respondents were contacted by email, with the final response rate being 97.6%.

The main feature of the questionnaire was a matrix that listed 27 different hospital workforce types (e.g., physicians, ultrasound techs, and registered nurses [RNs]). The survey included other questions regarding physician workforce and hospital administrators, with additional questions asked about workforce-related issues. From the survey, a great deal of useful workforce information can be calculated (e.g., the full-time equivalents [FTEs] and vacancy rates of hospital personnel, FTE positions being actively recruited, and difficulty in filling vacancies). A copy of the survey instrument can be found in the Appendix. The findings of this survey are reported below.

HOSPITAL WORKFORCE: FTE, VACANCY, AND RECRUITMENT DIFFICULTY

Both urban tertiary hospitals and rural critical access hospitals were surveyed on their current number of FTE employees, vacant FTEs, vacancy length, and recruitment difficulty as they relate to 27 health professions. The question specified:

Please answer the following questions regarding only your hospital operations. In your answers, do not include parts of your overall operation (e.g., long-term care, hospice, ambulance service, and outsourced services) or out of state care/services.

Figure 3 shows the total number of employed and vacant FTEs among both CAHs and PPS hospitals. It is clear from the figure that there are more registered nurse FTEs than any other provider type in both CAHs and urban hospitals in North Dakota. Among nurses, Figure 3 also indicates that a low percentage of nurse practitioner (NP) FTEs in North Dakota are in rural CAHs (20.3%); 79.7% of the NP FTEs in North Dakota were in the PPS hospitals.

In addition to RNs, those in entry-level positions had considerable numbers of FTEs. For this personnel type, CAHs employed 457.3 FTEs, whereas PPS hospitals employed 956.1 FTEs; the

Hospital Workforce Capacity: CAH/PPS Employed and Vacant FTEs and Geographic Variation

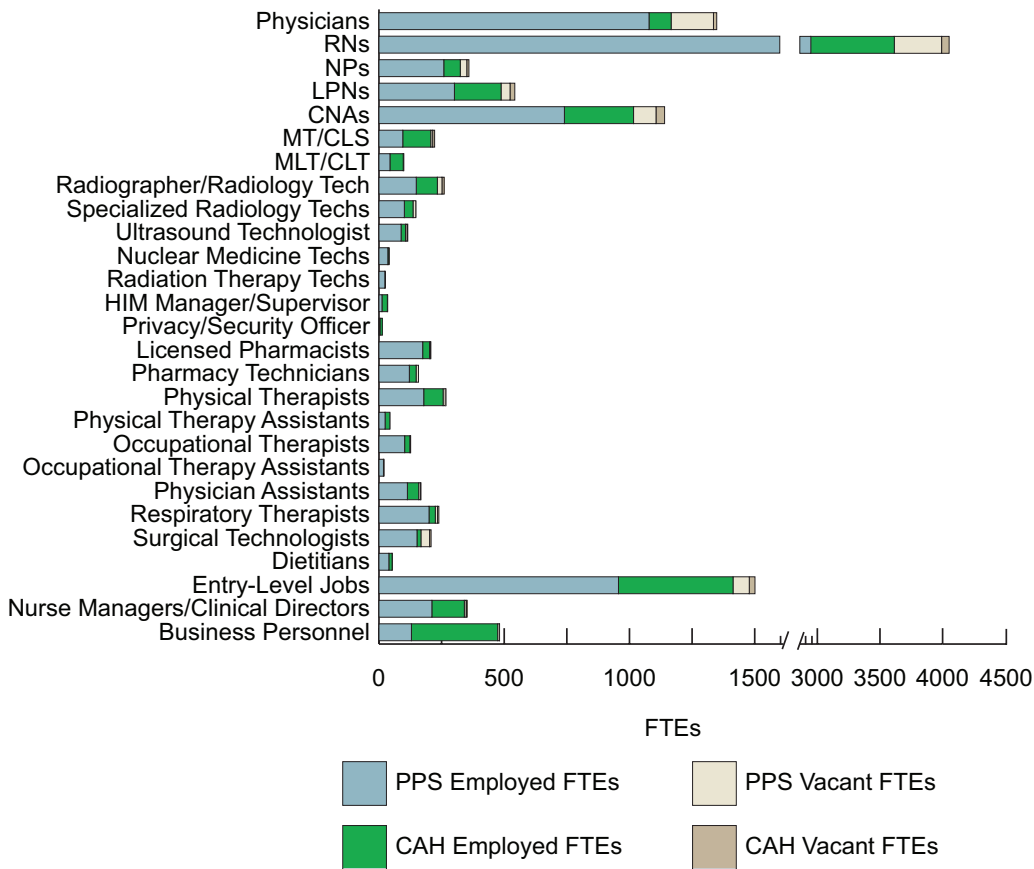


Figure 3. CAH and PPS Hospitals' Total Employed and Vacant FTEs by Health Profession.

²The Qualtrics Research Suite is a powerful online survey tool available to all faculty, staff and students at the University of North Dakota for academic purposes. The Research Suite allows researchers the capacity to build complex surveys that fulfill a variety of research needs. This tool can build surveys incorporating features such as branching, skip logic, response timing, video and audio integration, direct export to SPSS and Excel, and many more. It is an electronic survey tool.

corresponding number of vacant FTEs were 22.8 and 64.8. Physicians were next in line with 88.2 FTEs for CAHs and 1,078.1 for PPS hospitals; vacant FTEs were 13.0 and 169.0, respectively. Certified nurse assistants (CNAs also had high numbers of FTEs (276.0 FTEs among CAHs and 740.3 in PPS hospitals, with 34.3 and 89.7 vacant FTEs, respectively).

Figure 3 also shows the respective number of vacancies upon which the CAH vacancy rates were based. These ranged from 0.0 FTE vacancies (specialized radiology techs, nuclear medicine techs, radiation therapy techs, health information management (HIM) manager/supervisors, privacy/security officers, pharmacy technicians, physical therapy assistants, and occupational therapy assistants) to 66.8 FTEs among RNs in CAHs. Among PPS hospitals, FTE vacancies ranged from 0.0 (nuclear medicine techs, privacy/security officers, dietitians, physical therapy assistants, and occupational therapy assistants) to 419.5 FTEs among RNs.

Regional differences were also explored among CAHs with regard to employed FTEs among personnel types. Across all state regions, RNs had the highest number of employed FTEs, with the Northwest having the greatest amount (240.1 FTEs). The Northwest also had the greatest numbers of CNAs and licensed practical nurses (LPNs) (118.9 and 81.4 FTEs, respectively), along with entry-level jobs (130.8 FTEs) and business personnel (127.9). CAHs in the Southwest also employed a large number of employees, having the second-highest employed number of FTEs for RNs and CNAs (179.6 and 61.9 FTEs). There were no major differences when comparing FTEs from the Eastern and Western halves of the state. Both Eastern and Western

North Dakota were most likely to report that RNs were the largest personnel type employed (242.9 and 419.7 FTEs, respectively), followed by entry-level jobs (204.3 and 253.0 FTEs), and business personnel (98.8 and 245.6 FTEs).

In comparing current statewide vacancy rates to those from the 2014 survey, there was not a significant amount of variability. Some personnel types were added to the current survey (e.g., physicians and physical and occupational therapy assistants), whereas others were removed (e.g., medical record coders, computer technicians), and so comparing changes between all position types is not possible. In addition, not all respondents completed the survey in its entirety, which may affect overall comparisons between the two different survey versions. For example, some facilities may not have reported employed FTEs (and/or vacancies) for some positions, which could subsequently influence overall vacancy rates. As a result, some caution is warranted when comparing the current findings with results of the 2014 report.

Compared to 2014, FTEs across CAH and PPS hospital employee positions remained relatively stable. Among CAHs, business personnel had the largest increase in FTEs, going from 227.0 FTEs in 2014 to 344.4 in the present survey. RNs also saw an increase from 605.0 FTEs in 2014 to 662.64 FTEs in 2018; this was followed by medical technologist/clinical laboratory scientist (MT/CLS personnel (95.9 employed FTEs in 2014 to 111.74 in 2018). Medical laboratory technicians/clinical laboratory technicians (MLT/CLTs) had the largest decrease in FTEs, from 86.3 to 52.9 FTEs in 2018. In contrast to CAHs, PPS hospitals generally had lower numbers of

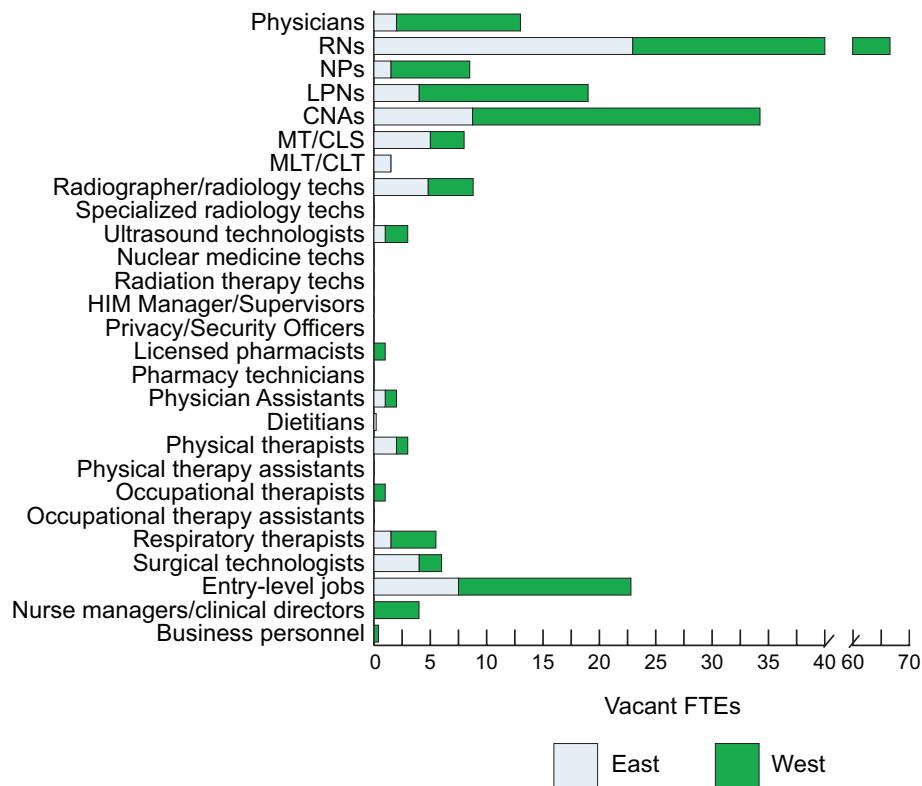


Figure 4. CAH Vacant FTEs across Health Professions by Eastern and Western State Regions.

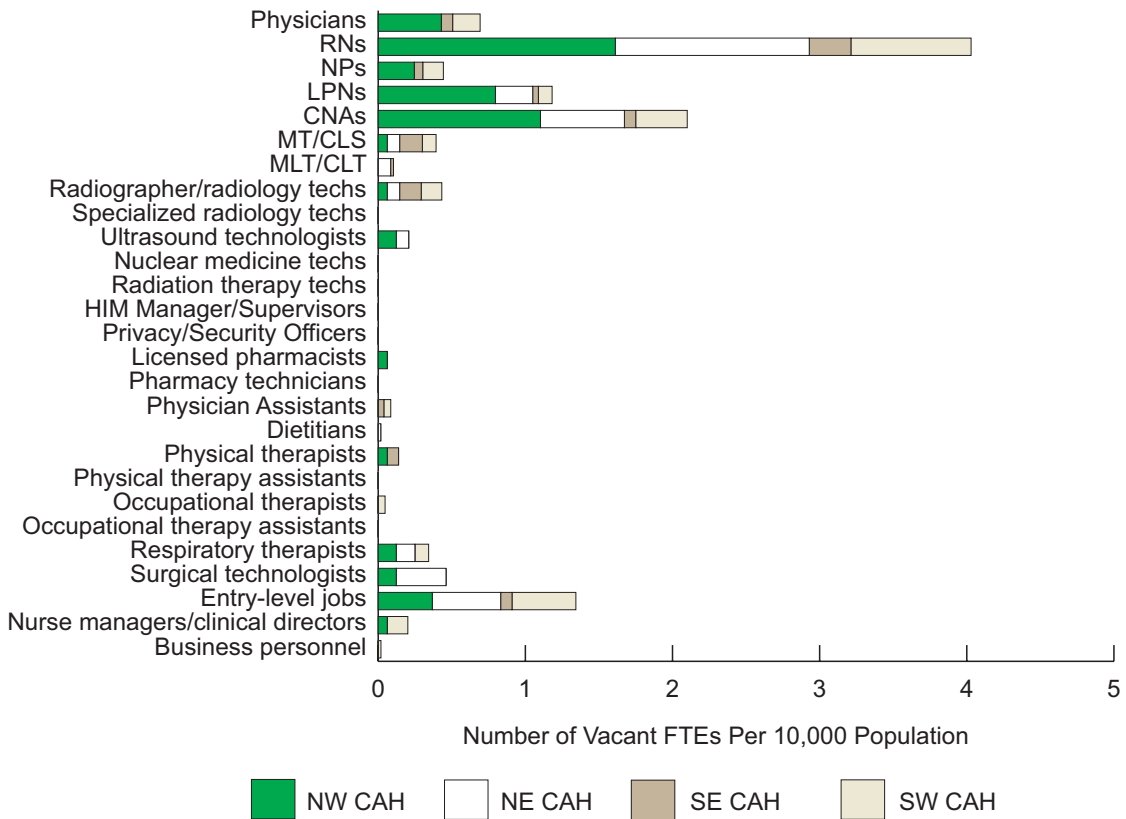


Figure 4a. Ratio of Vacant FTEs per 10,000 Population for CAHs.

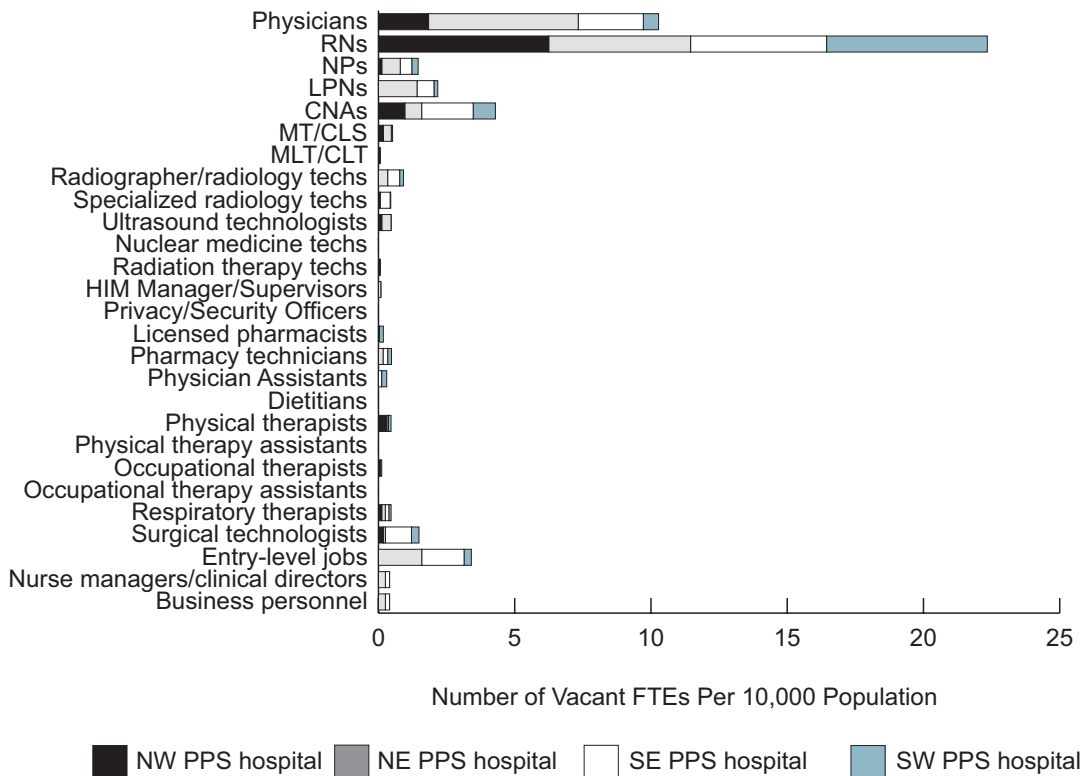


Figure 4b. Ratio of Vacant FTEs per 10,000 Population for PPS Hospitals.

FTEs as compared to 2014, with the largest decrease seen among RNs (3741.4 FTEs in 2014 to 2861.6 FTEs in 2018), LPNs (740.8 FTEs in 2014 to 301.2 in 2018). Radiation therapy techs (196.0 FTEs in 2014 to 23.5 in 2018) and business personnel (297.1 FTEs in 2014 to 129.6 in 2018) also saw considerable decreases. Certified nurse assistants saw one of the largest increases in employed FTE values, from 680.5 in 2014 to 740.3; this was followed by NPs (214.6 FTEs in 2014 to 258.8 in 2018). Entry level jobs also saw an increase, from 934.4 in 2014 to 956.1; as well as occupational therapists (88.4 FTEs in 2014 to 102.5 in 2018). These differences may not be completely representative of all PPS hospitals, however, as the matrix from which these values were calculated was not always completed in its entirety by respondents, resulting in smaller values.

Figure 4 shows the total number of vacant FTEs among CAHs, based on their respective location on the Eastern or Western side of the state. By a considerable amount, RNs had the largest number of vacant FTEs, regardless of location (23.0 vacant FTEs in the East and 43.8 in the West). Across both Eastern and Western locations, the positions of CNAs (East: 8.8 vacant FTEs; West: 25.5 vacant FTEs) and entry-level jobs (East: 7.5 vacant FTEs; West: 15.3 vacant FTEs) had the greatest amount of vacant FTEs. There were more than twice the number of vacant FTEs in the western North Dakota (141.0) compared to the Eastern half of the state (67.7 FTEs) among CAHs.

In addition to the total number of vacant FTEs among CAHs, regional differences were also assessed. Figures 4a and 4b illustrate the ratio of vacant FTEs per 10,000 population among state quadrants for CAH and PPS hospitals, respectively. In Figure 4a, RNs had the highest ratio of vacant FTEs per 10,000 population among CAHs for all quadrants of North Dakota, ranging from 1.6 in the Northwest to 0.3 in the Southeast. CNAs also had high ratios of vacant FTEs to population, especially in the Northwestern (1.1) and Northeastern (0.6) areas of the state. In the Southeast, MLT/CLTs had the second-highest ratios at 0.2; in the Southwest, entry-level jobs came in second at 0.4. Across all regions, CAHs reported the highest ratio of vacant FTE to 10,000 population among RNs, followed by CNAs and entry-level jobs.

In contrast to CAHs, Figure 4b looks at the vacant FTE per 10,000 population among PPS hospitals. Here, RNs again had the highest ratio among all quadrants (ranging from 6.3 in the Northwest to 5.0 in the Southeast), with the exception of the Northeast, where physicians had the highest ratio (5.5). Physician vacancies were also common in the Northwest (1.8) and Southeast (2.4) PPS hospitals; in the Northeast, RNs came in second (5.2) and in the Southwest, CNAs had the second-highest ratios (0.8). Across all regions, PPS hospitals reported the highest ratio of vacant FTE to 10,000 population among RNs, followed by physicians and CNAs.

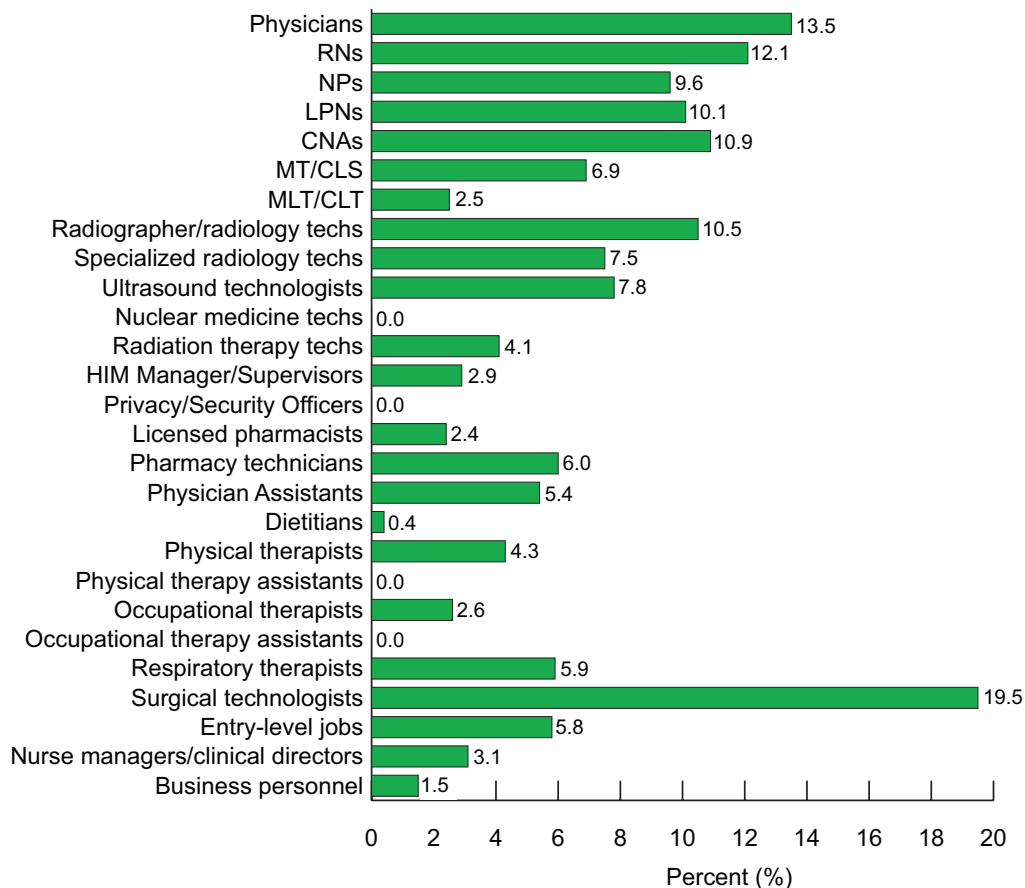


Figure 5. Overall Vacancy Rates Statewide (CAH and PPS Hospitals).

Hospital Workforce Vacancy Rates: CAH/PPS and Geographic Variation

To determine hospital and health professional vacancy rates, each health profession's vacant FTE for which hospitals were currently recruiting was divided by the sum of the employed FTE and vacant FTE; this quotient was multiplied by 100 to identify the percentage of positions vacant. Note that these vacancy rates are not averages of hospital rates (means of means) but are rates using the overall category number of vacancies and employed providers (weighting these rates by FTE hospital employment counts) and thus providing more accurate estimates.

The vacancy rates for CAHs and PPS hospitals statewide are shown in Figure 5. At a rate of 19.5%, surgical technologists had the highest vacancy rate in the state by a substantial margin. Physicians had the next highest at 13.5%, followed by RNs (12.1%), CNAs (10.9%), radiographers/radiology techs (10.5%), and LPNs (10.1%). With the exception of these personnel types, the remaining positions each had vacancy rates of less than 10.0%.

Compared to 2014 data, among corresponding employee positions between the two surveys, the personnel types with the largest increase were surgical technologists (7.9% vacancy in 2014 compared to 19.5% in 2018). For this group, the overall employed number of FTEs stayed approximately the same (161.2 FTEs in 2014 and 167.5 in 2018); however the number of overall vacant FTEs increased from 13.8 FTEs in 2014 to 40.6 in 2018. Radiographer/radiology techs also saw a considerable increase in statewide

vacancy rates (0.35% vacancy rate in 2014 to 10.5% in 2018). Among this personnel type, not only did the overall number of employed FTEs decrease from 282.9 in 2014 to 233.1 in 2018, but there was an overall increase in vacancies as well (1.0 vacant FTE in 2014 to 27.2 in 2018).

In contrast, some personnel types saw a sizeable amount of decrease in vacancy rates. Among these were MLT/CLT personnel, who had a vacancy rate of 9.5% in 2014 compared to 2.5% in the current survey. Here, the overall number of employed FTEs dropped from 183.2 in 2014 to 96.8 in 2018; vacancies also decreased from 19.1 in 2014 to 2.5 presently. Physician assistants also saw a decrease from 11.6% to 5.4%, with employed FTEs dropping slightly (172.8 FTEs in 2014 to 158.7 in 2018) along with vacant FTEs (22.6 FTEs in 2014 versus 9.0 in 2018).

Figure 6 shows overall vacancy rates among CAHs and PPS hospitals. Among CAHs, the highest vacancy rates were among surgical technologists (27.7%), respiratory therapists (18.0%), ultrasound technologists (14.5%) and physicians (12.8%). The highest PPS hospital vacancy rates were among surgical technologists (18.6%), physicians (13.6%), RNs (12.8%), and radiographer/radiology techs (11.0%). Both surgical technologists and physicians had high vacancy rates across both CAH and PPS hospitals.

As a whole, the vacancy rates across CAHs and PPS hospitals had not deviated substantially since the previous survey in 2014. As described above, surgical technologists were one exception to this –

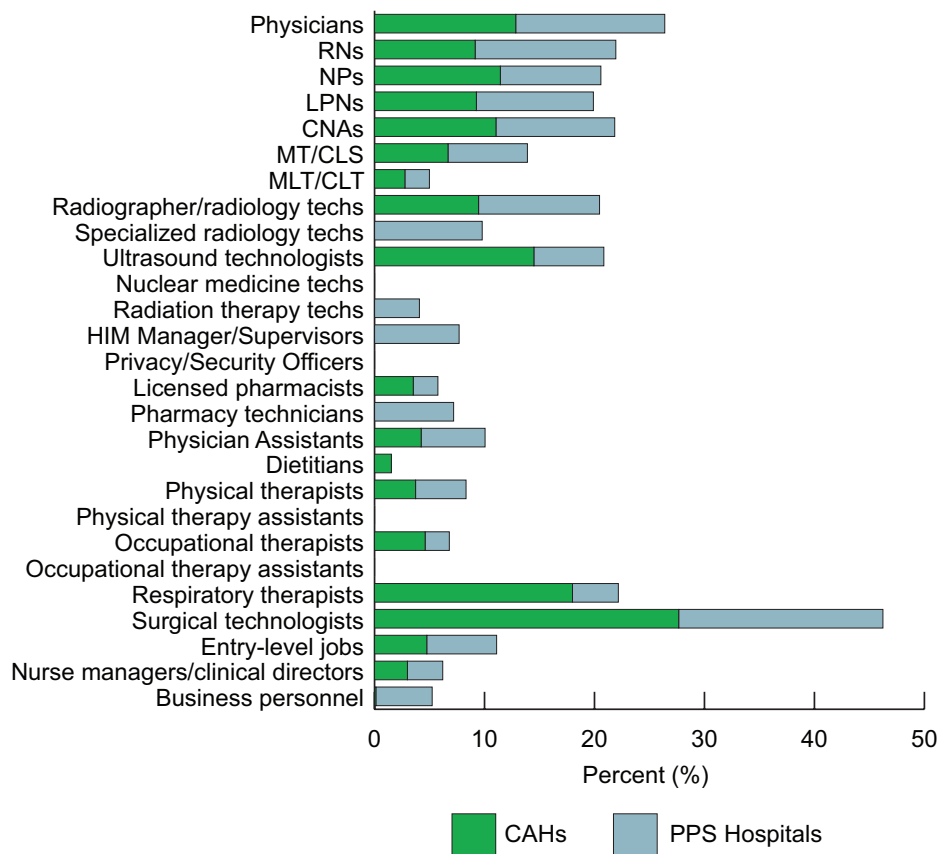


Figure 6. CAH and PPS Hospitals' Vacancy Rates by Health Profession.

vacancy rates for CAHs and PPS hospitals increased from 4.4% and 8.4% in 2014 to their current rates of 27.7% and 18.6%, respectively. In this personnel type, employed FTEs decreased by 6.3 FTEs from 2014 to 2018 among CAHs, and increased 12.6 in PPS hospitals; vacant FTEs went from 1.0 in 2014 to 6.0 in 2018 among CAHs, and from 12.8 to 34.6 in PPS hospitals. Respiratory therapists among CAHs also saw a vacancy rate increase, from 2.6% in 2014 to 18.0% in 2017. Employed FTEs among rural respiratory therapists dropped from 37.8 FTEs in 2014 to 25.1 FTEs in 2018; vacant FTEs among this group also increased from 1.0 to 5.5. Growth in PPS hospitals was seen among radiology techs (2014: 2.4%, 2018: 11.0%) and specialized radiology techs (2014: 1.0%, 2018: 9.8%).

In contrast, some considerable decreases were also observed. For instance, the vacancy rate of physician assistants among PPS hospitals declined from 14.1% in 2014 to 5.8% in 2018. In this group, the overall employed FTEs stayed relatively the same (131.2 FTEs in 2014 to 113.5 FTEs in 2018), but vacant FTEs dropped from 21.6 to 7.0 in 2018. Similarly, in 2014, CAHs reported a vacancy rate among radiation therapy technicians of 20.0%; that percentage is now down to 0.0%. Here, employed FTEs decreased from 4.0 to 0.0, and vacant FTEs also decreased from 1.0 to 0.0.

Vacancy rates for CAHs on the Eastern and Western sides of the state are shown in Figure 7. In the Eastern side of the state, the top three vacancy rates were among surgical technologists (37.0%), ultrasound technologists (18.2%), and MT/CLS positions (12.0%). The vacancy rates for surgical technologists and ultrasound technologists should be interpreted with caution, however, as they

are based on a small number of FTEs. For example, there are 6.8 employed FTEs for surgical technologists on the Eastern side of the state, with 4 total FTE vacancies. Ultrasound technologists have 4.5 employed FTEs and 1.0 vacant FTE.

In the Western side of the state, the three greatest vacancy rates were among respiratory therapists (22.9%), surgical technologists (18.4%), and physicians (14.5%). The vacancy rates for respiratory therapists and surgical technologists are also calculated from a smaller number of FTEs, and so caution is warranted. Specifically, respiratory therapists have 13.5 employed FTEs and 4.0 FTE vacancies, whereas surgical technologists have 8.9 employed FTEs and 2.0 vacant FTEs.

Hospital Workforce Recruitment Difficulties: CAH/PPS and Geographic Variation

CAHs and PPS hospitals were also asked to rate how difficult it was to fill each of the different personnel types on a scale where 1 = very easy and 4 = very difficult. The average ratings for fill difficulty are shown in Figure 8, separated by CAHs and PPS hospitals. As is depicted in the Figure, CAHs had a noticeably more difficult time working to fill personnel positions than their urban hospital counterparts. Among CAHs, the most difficult to fill positions included physicians (3.7), MLT/CLTs (3.7), MT/CLS employees (3.6), and radiation therapy techs (3.5). For PPS hospitals, such positions included RNs (3.8), MT/CLSs (3.6), MLT/CLTs (3.5), and surgical technologists (3.3).

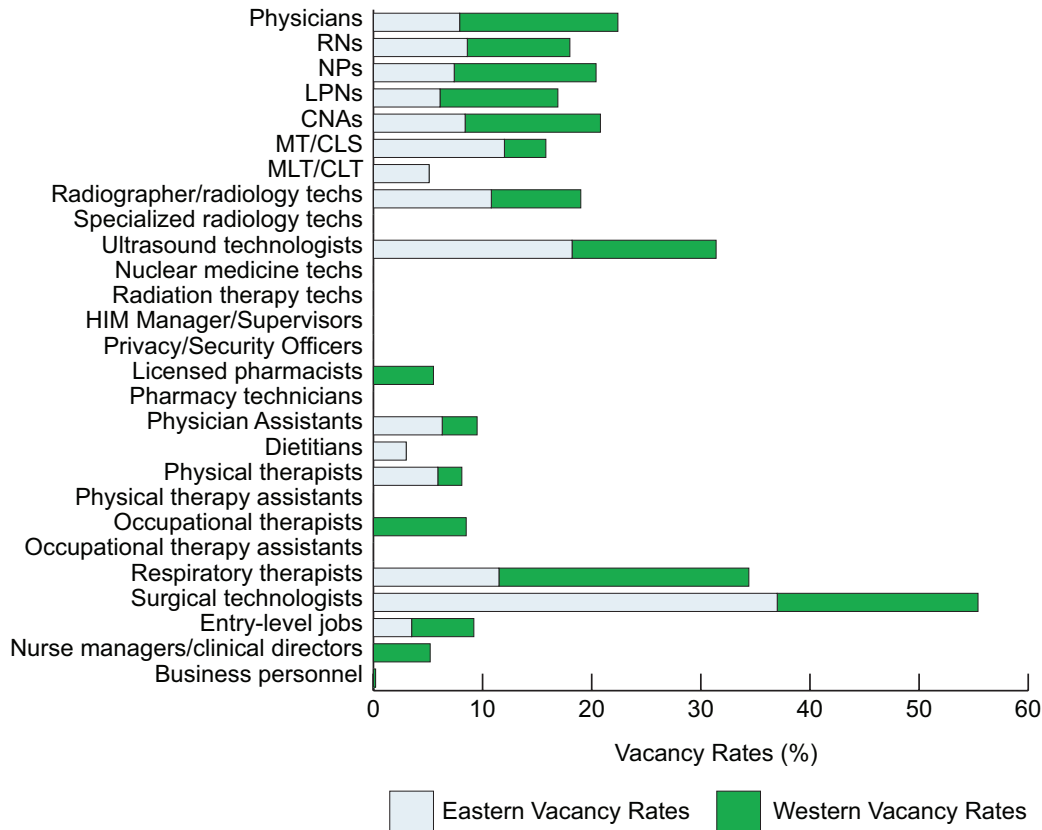


Figure 7. CAH Vacancy Rates across Health Professions by Eastern and Western State Regions.

CAH mean fill difficulty across regions in the state was also examined. CAHs in the Northwest portion of the state indicated that physicians positions were the most difficult to fill (3.6), followed by RNs (3.4), LPNs (3.3), and dietitians (3.3). In the Northeast, radiation therapy techs and nuclear medicine techs were rated the highest (4.0), as well as physicians and MT/CLS positions (3.8). Surgical technologists were reported as having the greatest fill difficulty in southeast areas (4.0), in addition to MT/CLS and MT/CLT personnel and physicians (3.8). Finally, in the Southwest, ultrasound techs, radiation therapy techs, and nuclear medicine techs were in high demand (4.0), as well as MT/CLS employees (3.9).

Across all regions, the Northwest reported the lowest average rate of fill difficulty (2.9), followed by the Northeast (3.0). Mean fill difficulties in the Southwest (3.3) and Southeast (3.2) were slightly higher.

Based on the overall fill difficulty means, the position with the greatest amount of variability across regions was nuclear medicine techs, with the Southwest reporting a fill difficulty of 4.0 compared to 2.3 in the Northwest. Radiation therapy techs were next, with the Southwest reporting a fill difficulty of 4.0 and Northwest at 2.5. For both position types, facilities in the southeast portion of the state did not list fill difficulty. NPs were third, rated as being hardest to fill in the Southwest at 3.9 and easiest in the Northeast at 2.5.

CAH and PPS hospital respondents were also asked to list the number of months they had been recruiting for the position that was vacant the longest. Figure 9 shows the average number of months that CAH and PPS hospitals spent recruiting for each respective position. CAHs reported spending the most time recruiting physicians

(13.2 months), followed by RNs (11.3 months), NPs (10.8 months), and LPNs (8.5 months). Physicians were also the longest-recruited professional type among PPS hospitals (27.0 months), as well as NPs (9.3 months), ultrasound technologists (6.0 months), and MT/CLSs (5.7 months). As a whole, urban areas typically reported spending more time recruiting health personnel than did CAHs. The largest discrepancy was among physicians, where PPS hospitals spent over twice as long recruiting physicians as did CAHs (27.0 versus 13.3 months). The time spent recruiting among the other positions was similar.

The mean number of months that CAHs spent recruiting across regions was also examined. In the Northwest area of the state, CAHs spent an average of 17.6 months recruiting RNs, 16.4 months recruiting physicians, 15.6 for NPs, and 12.8 for LPNs. In the Northeast, physicians had the greatest recruitment time (9.0 months), followed by MT/CLS (8.0 months), MLT/CLT (7.5 months), and LPNs and ultrasound technologists (6.0 months). In the Southeast, CAHs again spent a significant amount of time recruiting RNs (18.3 months), physician assistants (18.0 months), radiographer/radiology techs (16.0 months), and NPs (12.0 months). Finally, in the Southwest, physicians had the greatest values (15.0 months), as well as physician assistants (12.0 months), RNs (8.7), and NPs (8.7 months).

Across all regions, CAHs in the Northeast reported the lowest average number of months recruiting for all employee types (2.1 months), followed by the Northwest (2.8 months) and Southeast (2.8 months). The average fill difficulty was highest in the Southwest, on average, at 3.1 months.

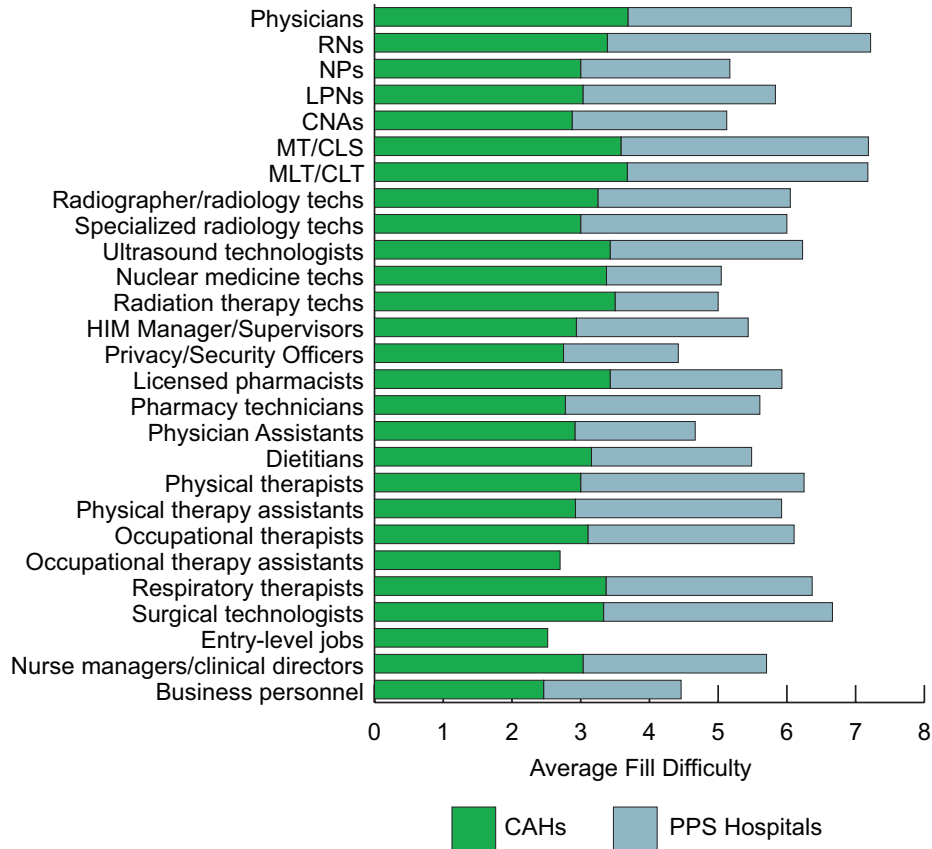


Figure 8. CAH and PPS Hospitals' Mean Fill Difficulty by Health Profession.

Those positions with the greatest amount of variability across regions were physician assistants, with CAHs in the Southeast spending the most time recruiting (18.0 months), and the Northeast spending the least (0.0 months). NPs were also commonly reported, with the Northwest recruiting the longest (15.6 months) and Northeast the shortest (0.0 months). This was followed by radiographer/radiology techs, with those in the Southeast recruiting the longest (16.0 months), as compared to the Northwest (0.5 months).

Limitations to Workforce FTE and Vacancy Estimates

While the findings from the North Dakota Hospital Workforce Survey tell us much about short-term general hospital workforce, they may not be generalizable to all North Dakota providers' nonhospital employment sectors (e.g., nursing homes and physicians' office practices). However, significant shortages for hospitals can be ominous for other employment situations because the hospitals are often able to provide higher reimbursement and better job conditions than are other providers. Of course, significant systemic shortages of provider types across North Dakota's hospitals are significant in and of themselves because of how they influence the provision of timely and quality healthcare. Caution needs to be taken in interpreting the findings because some vacancy rates are based on small numbers of healthcare employees, and many factors influence vacancy rates. For instance, health-provider-type vacancy rates are influenced by hospital need, the salaries that hospitals are willing to pay, availability of employed and unemployed providers looking for positions, local community conditions and opportunities, the physical condition of the hospital, working conditions, and so forth.

PHYSICIAN WORKFORCE

All six tertiary facilities indicated they had physician positions in their hospitals; 26 of 36 (72.2%) CAH respondents indicated having physician positions. Ten hospitals in the state (all rural hospitals) reported not having physician positions. Among CAHs with physicians, slightly more were located in the western half of the state (53.9%). Specifically, there were eight CAHs with physician positions in the Northwest, six in the Southwest, five in the Northeast, and seven in the Southeast. Despite this, the data indicated that CAHs tended to employ more primary care physicians than specialists, whereas urban hospitals had more specialist positions. In fact, urban hospitals had more than two times the number of specialists than they did primary care physicians.

Primary Care and Specialty Physicians: Totals and Geographic Variation

Among 24 of the 26 CAHs that had physician positions, there were 33 specialists and 56.5 primary care physicians. In contrast, PPS hospitals reported having 389 specialist positions and 158 primary care positions; however, these numbers only reflected four out of the six different tertiary hospitals that answered the specified survey question. Given that previous report totals from 2014 were 860 specialists and 337 primary care positions, it is clear that the two missing PPS hospitals employed a significant number of physicians that were not included in the current totals.

Among CAHs, primary care physicians were somewhat equally dispersed across the state. The highest number of primary care physicians was present in the Northwest (21.5), followed by the

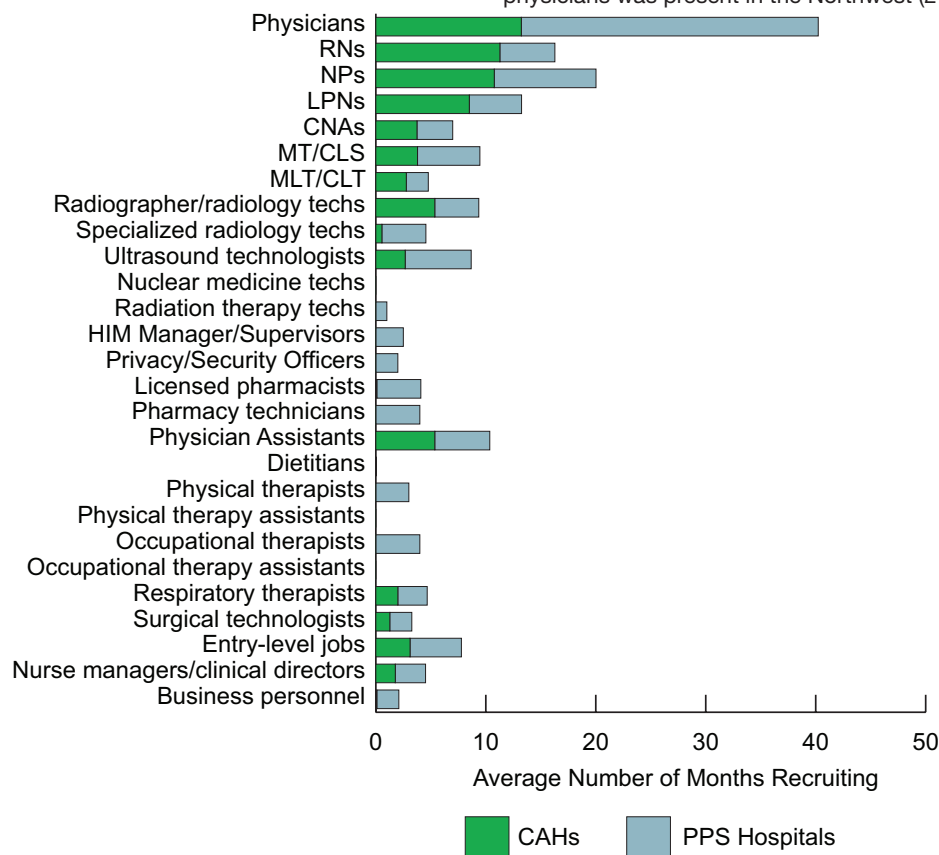


Figure 9. CAH and PPS Hospitals' Number of Months Recruiting by Health Profession.

Southwest (16.0), Southeast (12.0), and Northeast (7.0). This was also similar to the trend for specialist physicians, with CAHs in the Southwest employing the largest number of specialty physicians (13.0), followed by those in the Northwest (10.0), Southeast (6.0), and the Northeast (4.0).

Physicians in tertiary centers were not as uniformly present throughout the state. In particular, this was complicated by missing data from two urban facilities, which therefore does not allow a complete overview of the current number of primary care and specialty physicians in North Dakota. Current findings revealed that the Northwest had the highest values for both primary care and specialty physicians, but given that data were missing for two of the tertiary centers in the southern half of the state, it is probable that this outcome would change with updated data. In the previous 2014 report, there were more primary care and specialist positions in the Southeastern part of the state, followed by the Southwestern. This is influenced by there being two urban facilities in the Southeast and Southwest, whereas the Northeast and Northwest have one tertiary center each.

Recruiting Physicians: Filling Vacancies and Barriers to Recruitment

When asked how difficult it was to fill primary care physician vacancies, all hospitals (both rural and urban) indicated it was somewhat or very difficult. Among CAHs that employed physicians (n = 25/26), 7 (28.0%) indicated that it was somewhat difficult to fill primary care physician vacancies, whereas 18 (72%) reported that it was very difficult. Tertiary hospitals (n = 4/6) were split, with 2 (50.0%) each indicating that it was equally somewhat and very difficult

to fill positions. Overall means for difficulty of recruiting primary care physicians were 3.72 among CAHs and 3.50 among tertiary hospitals, indicating that rural facilities in North Dakota generally have greater difficulty filling primary care physician vacancies than do urban centers. These findings were very similar to the 2014 results, where 24% and 76% of CAHs said that it was somewhat or very difficult to fill primary care physician vacancies, respectively; PPS hospitals were again evenly split between the two options.

Hospitals were also asked to rate the degree to which various factors (i.e., housing, cultural activities, or compensation package) were a problem in recruiting physicians (Scale: 1 = Not an Important Problem, 4 = Important Problem). Among CAHs, the three most significant barriers to recruiting a physician were: workload and call schedule, cultural activities and opportunities, and spousal employment opportunities (see Figure 10). In 2014, CAHs reported their top three barriers as difficulty finding good housing, excessive workload and call schedule, and lack of cultural activities and opportunities.

Barriers to physician recruitment among CAHs did not vary significantly across regions (see Figure 11; Scale: 1 = Not an Important Problem, 4 = Important Problem). Factors that demonstrated the greatest amount of variation across regions were finding good housing and spousal employment opportunities. Those in the Northeast reported that finding good housing was a considerably larger barrier than those in other areas, particularly the Southwest. Additionally, those in the Southeast were more likely to report that spousal employment opportunities were a barrier



Figure 10. Importance of Various Barriers to Physician Recruitment in CAHs (n = 24/26).

than other regions, especially the Northwest. Four CAHs wrote in a response for “other important problems,” which included three responses for “location,” and one response for “location/weather.” In 2014, the only barrier to physician recruitment among CAHs that varied by region was competitive compensation packages, with those in the Southwest and Northeast indicating this was more of an important issue than other regions.

Compared to CAHs, barriers to physician recruitment among PPS hospitals were noticeably lower (Figure 12; Scale: 1 = Not an Important Problem, 4 = Important Problem). The three most significant barriers included cultural activities and opportunities, spousal employment opportunities, and workload and call schedule. Four of the PPS hospitals wrote in a response for “other important problems” including climate, lack of candidates, location/weather, and weather. Considerably lower ratings of barriers was also consistent with the 2014 findings – the most important factors at that time included difficulty finding good housing, excessive workload and call schedule, and lack of spousal employment opportunities.

Both CAHs and PPS hospitals were asked to indicate which of the factors most impeded their ability to recruit physicians. These findings are shown in Figure 13, with some facilities denoting more than one problem. CAHs reported that workload and call schedule was the most significant barrier they faced in recruiting physicians, followed by cultural activities and opportunities, and spousal employment opportunities. Write-in responses for CAHs that were marked as the biggest problem included location and/or weather. Similarly, each of the four PPS hospital respondents indicated that

their added responses of climate, lack of candidates, location/ weather, and weather were the most significant barriers in recruiting physicians. These findings were also comparable to those from the 2014 report, where CAHs indicated that excessive workload and call schedule was the primary concern; the tertiary centers did not identify a prominent issue.

Emergency Department Staffing

Emergency department staffing results are shown in Figure 14. Among CAHs, 12 (33.3%) indicated that they employed a hospital physician as the physician on staff. Eleven (30.6%) employed an outside contracting physician, and 10 (27.8%) utilized local physicians. Approximately 58% of CAH respondents also provided additional information regarding how they staffed their emergency department. These included several different responses, with the most common being mid-level providers such as NPs, PAs, and FNPs, locum tenens, and other advance practice clinicians. Four of the responding tertiary centers indicated that they employed a hospital physician as the physician on staff (66.7%). Two (33.3%) also utilized local physicians, and one (16.7%) also employed outside contracting physicians in addition to the hospital physicians in their emergency department. In 2014, all six tertiary centers indicated that they employed a hospital physician, with one PPS hospital also employing contracting physicians. Results among CAHs in 2014 were more variable, with 50% employing hospital physicians, 41% utilizing outside contracting physicians, and 29% using local physicians.

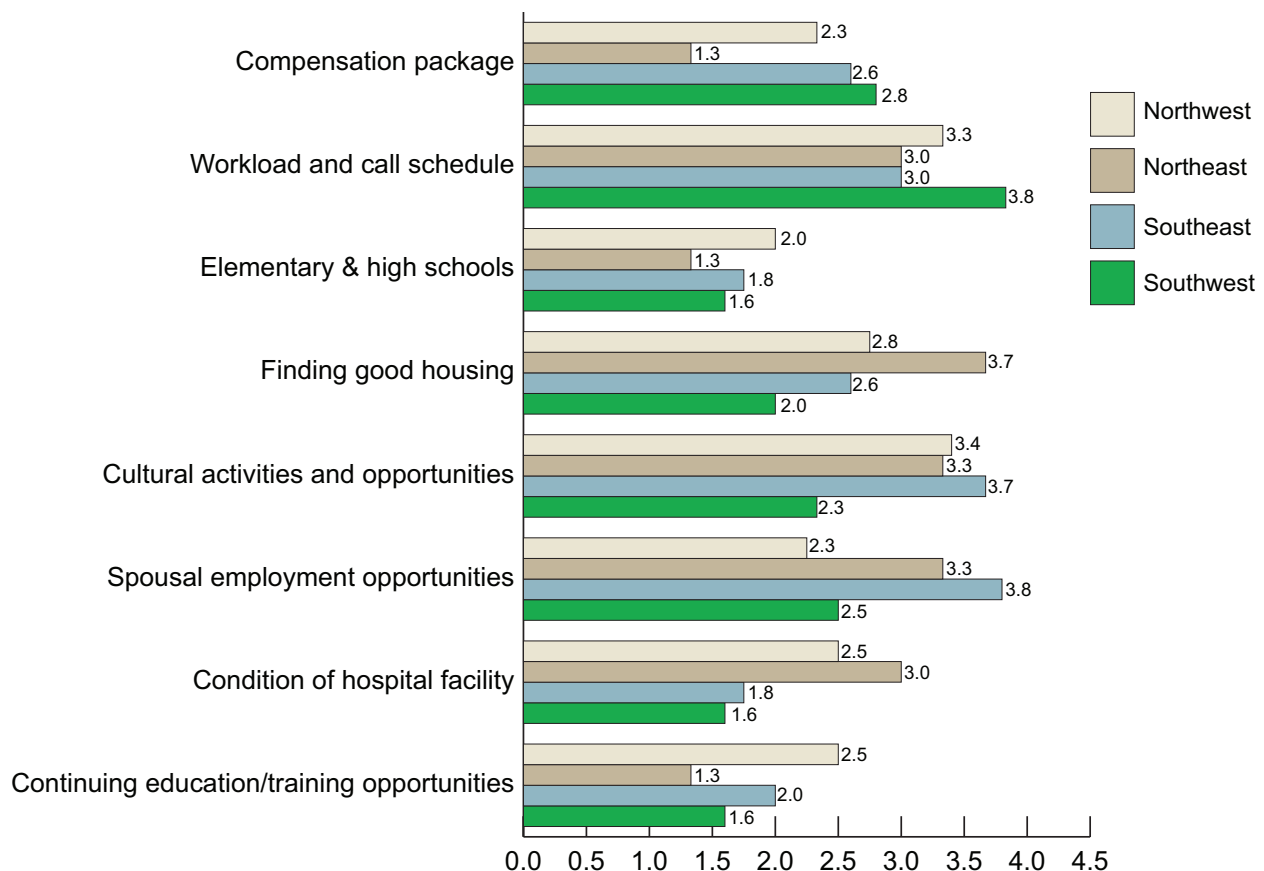


Figure 11. Importance of Various Barriers to Physician Recruitment in CAHs by Region (n = 24/26).

OTHER HOSPITAL WORKFORCE DATA

Provider Types and Contracted Employees

Hospitals were asked how many positions were regularly staffed by contract employees. Among CAHs (n = 35/36), the number of positions ranged from 0 (6 facilities) to 21 (1 facility), with a total of 142.7 positions. The average number of contracted positions for CAHs was 4.1. In PPS hospitals (n = 4/6), the number of positions ranged from 5 (1 facility) to 122 (1 facility) with a total of 176 positions. The average number of contracted positions was 44.0.

Using an open-ended question, Hospitals were also asked to identify the provider types that were most numerous in their facility; some facilities listed more than one type. Respondents listed a wide variety of provider types. Among CAHs (n = 27/36), registered nurses (9), billing/business office (4), CNAs (4), and nurses (4) were listed as being the most numerous. Other common responses included occupational therapists (3), physicians (3), physical therapy (3), and laboratory (MLT) (2). Tertiary facilities (n = 3/6) indicated RNs (1), hospitalists and family medicine (1), and advance practice clinicians (1). The personnel types that were most numerous among CAHs in 2014 included RNs, nursing assistants, and mid-level providers; PPS hospitals listed neurosurgery, RNs, hospitalists, family medicine, and physician locums as most numerous.

Professions Most Difficult to Recruit

The positions listed as the most difficult to recruit for among tertiary centers (n = 3/6) were RNs (3); one PPS hospital also indicated that

psychiatry was also especially difficult to hire. The professional positions that were second-most difficult to recruit for among tertiary facilities included medical technologist lab personnel, ultrasound techs, and one facility that listed both neurology and surgical techs. Finally, listed as the third leading professional most difficult to recruit among urban hospitals was physical therapists, specialized NPs, as well as a response of rheumatology and MT/CLS.

Among CAHs, physicians were by far the leading position for which it was most difficult to recruit (16). This was followed by the responses of lab techs (3), as well as nurses (3), and RNs (2). The top positions that were second-most difficult to recruit among CAHs included RNs (8), laboratory positions (4), and physicians (4). Finally, RNs (6) and lab techs (3) were listed as the third leading professions most difficult to recruit.

In 2014, tertiary centers listed psychiatry, RNs, CLS/CLT and primary care physicians as the most difficult to recruit. The second-most difficult positions included emergency medicine, surgical techs, and speech language pathologists. Among CAHs, physicians were commonly rated as being most difficult to recruit, followed by RNs and speech therapists, among others. Personnel types listed as second-most difficult to recruit included RNs, mid-level providers, lab techs, and entry-level positions.

Visiting Specialists

The number of days that visiting specialists saw patients in the hospital was also assessed. Only one tertiary center responded to this question, listing an average of 6 days per month. Among CAHs

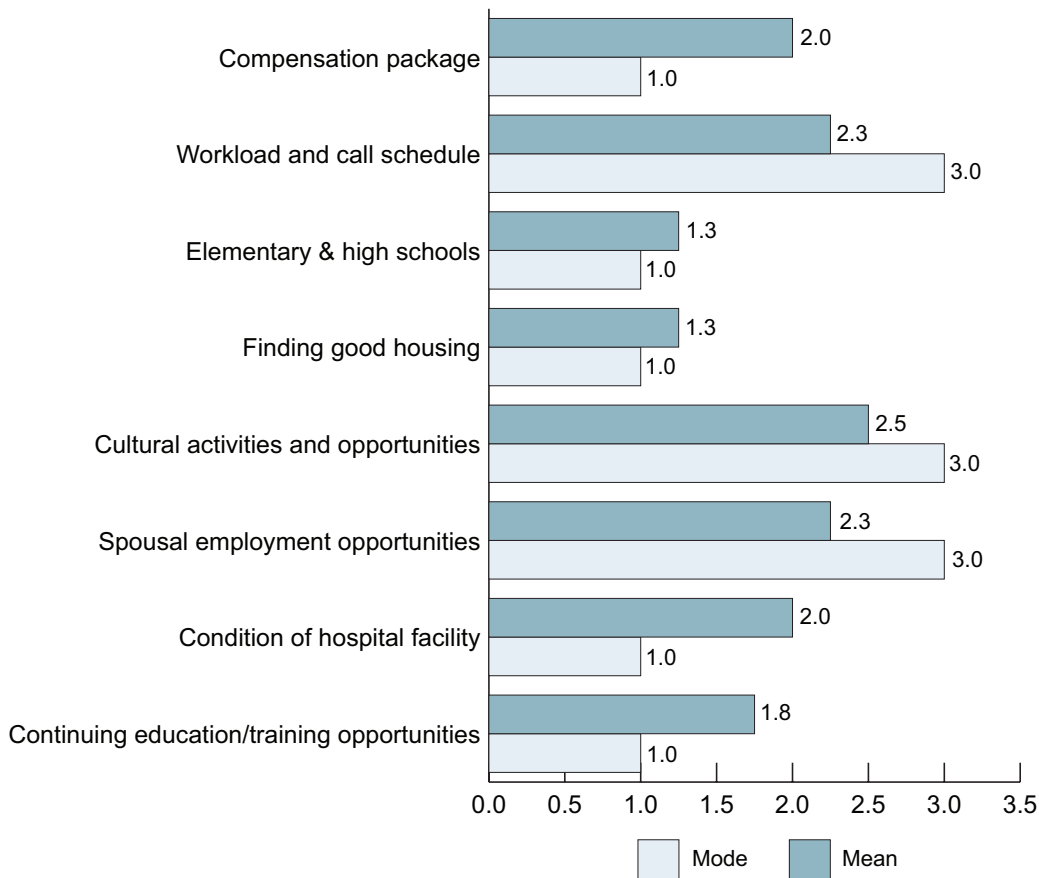


Figure 12. Importance of Various Barriers to Physician Recruitment in PPS Hospitals (n = 4/6).

(n = 36/36), days ranged from 0 (17 facilities) to 15 (1 facility) for a total of 107 days. CAHs that did utilize visiting specialists were most prevalent in the northeast, with an average of 6.3 visiting specialists per month. Remaining regions and averages included the Northwest (5.8), Southwest (5.4), and Southeast (3.5). Across the state, the average number of days visiting specialists saw patients in CAH facilities was 3.0. In 2014, visiting specialists in PPS hospitals saw patients in the hospital between two and ten days a month; among CAHs this ranged from 0 to 20 days a month.

Divert Status

Divert status refers to a temporary position for a healthcare facility in which local emergency medical services are notified that the respective hospital's beds are full and are unable to accept new patients. In the last year, no urban hospital (n = 4/6) had gone on "divert status" because of RN shortages. Among CAHs (n = 35/36), only two had to go on "divert status," with one facility reporting 2 days, and the other 25 days. This was similar to the 2014 findings, where no PPS hospital had to go on "divert status." Among the two CAHs that did go on divert status, one reported five times, while the other reported six.

Administrative Vacancies

Hospitals in North Dakota also struggled with filling administrator vacancies in both rural and urban communities. Of the CAHs that

responded to this question (35), only two (5.7%) indicated that it was very easy to recruit for administrator vacancies. Among those remaining, 13 (37.1%) indicated it was somewhat easy, 14 (40%) stated it was somewhat difficult, and 6 (17.1%) reported it as being very difficult. All four of the PPS hospital respondents reported that it was somewhat difficult to fill such vacancies. The average difficulty for filling administrator vacancies was 2.69 among CAHs, on a scale of 1 (very easy) to 4 (very difficult). Similarly, in 2014, none of the hospitals (PPS or CAH) indicated that it was very easy to recruit for administrator vacancies. Approximately 58% of CAHs reported it was somewhat difficult, and 13% stated it was very difficult. Among PPS hospitals, 40% indicated that it was somewhat easy, and 60% reported it as being somewhat difficult.

Hospital Size: Licensed Swing Beds and Census

The number of swing beds in hospital facilities was also assessed. Among CAHs that answered this question (32), the number of swing beds ranged from 0 (2 CAHs) to 30 beds (1 CAH). The average across each facility was 15.9 beds. Three tertiary hospitals responded to this question, with two facilities reporting 0 beds, and the other reporting 104.

Hospitals were also asked to report their daily average census. Responses among CAHs ranged from 0.78 (1 facility) to 26 (1 facility); the average across the 36 hospitals was 6.5. Only one PPS hospital completed this question, yielding a value of 110.

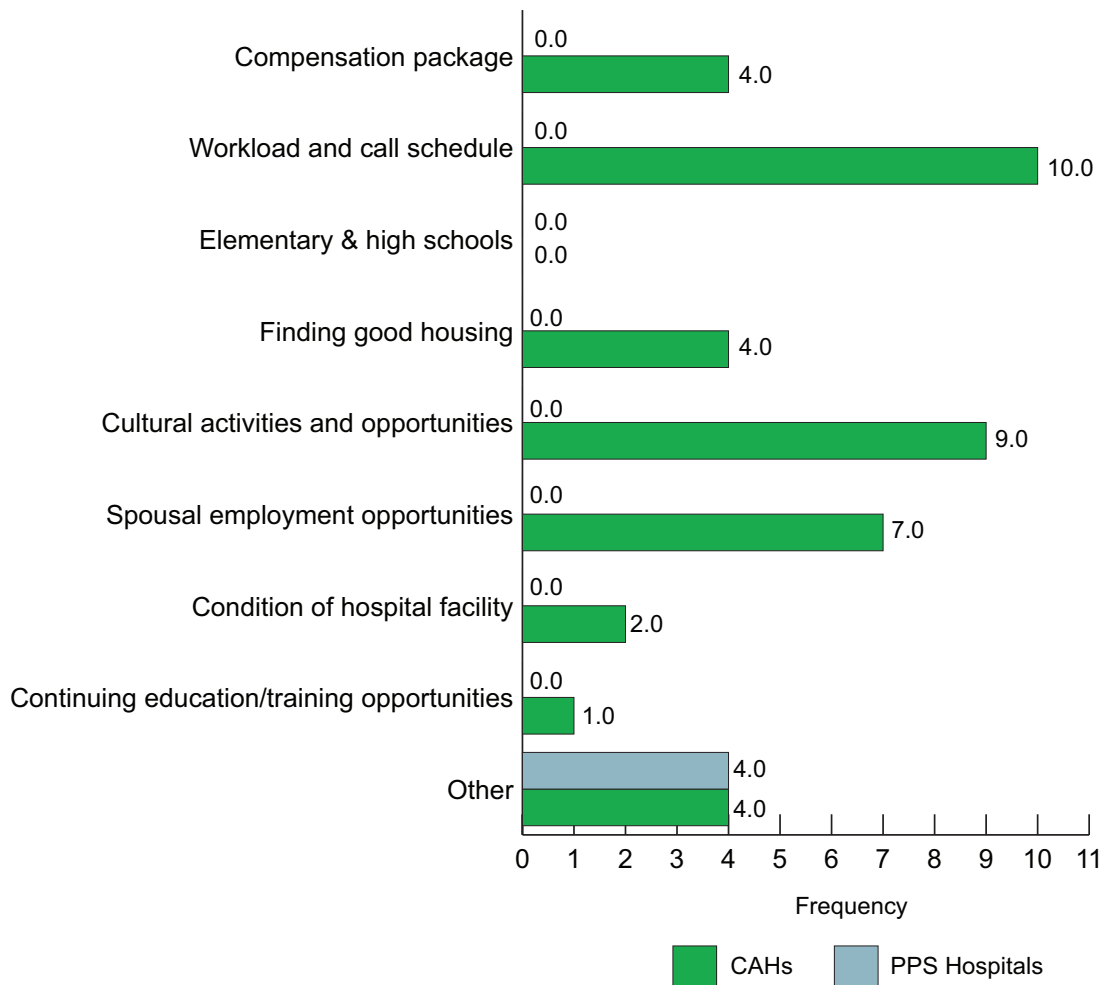


Figure 13. Frequency by Which Each Barrier to Physician Recruitment was Identified as the Primary Concern for CAH and PPS Hospitals (n = 21/26 CAHs; n = 4/6 PPS Hospitals).

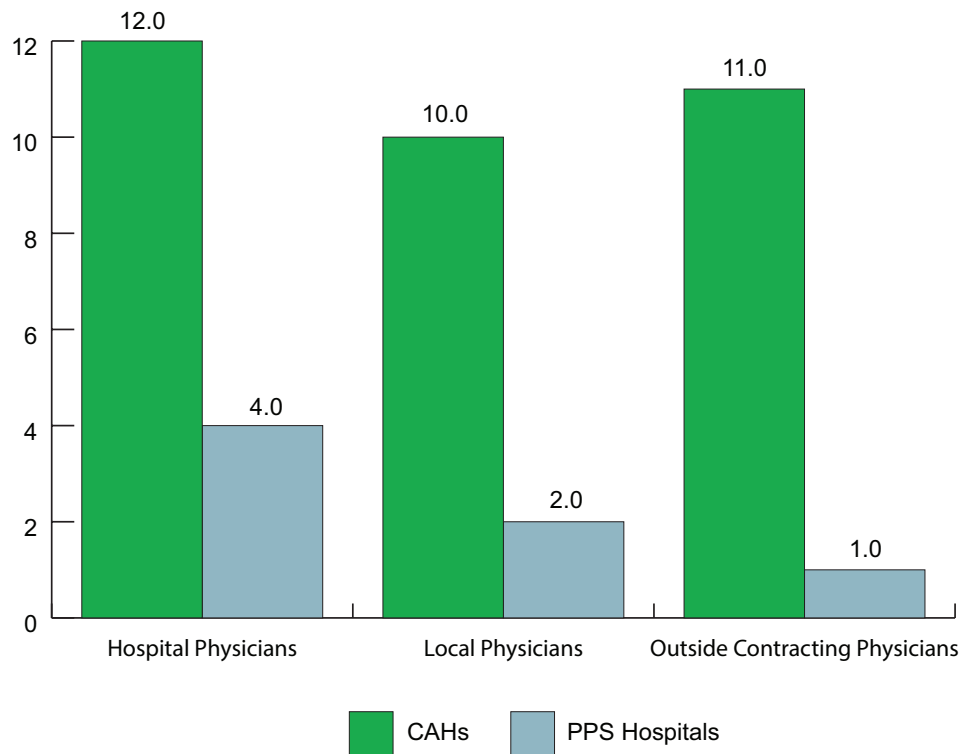


Figure 14. Number of CAHs that Employ Each Physician Type to Staff the Emergency Department (n = 36/36 CAHs; n = 4/6 PPS Hospitals).

APPENDIX A: TERMS & DEFINITIONS

Business Personnel Individuals who work in fields such as marketing, finances and accounting, administration and human resources.

Certified Nurse Assistant (CNA) Helps patients or clients with healthcare needs under the supervision of a registered nurse or licensed practical nurse.

Dietitian An expert on diet and nutrition.

Entry-Level Jobs A position in a specific field that typically does not require prior experience in the profession.

Health Information Management (HIM) Manager/Supervisor An individual who manages daily operations of a Health Information Management Department. They are responsible for quality and protection of a patient's health information.

Licensed Pharmacist An individual licensed to prepare, compound, and dispense drugs upon written order (prescription) from a licensed practitioner such as a physician, dentist, or advanced practice nurse.

Licensed Practical Nurse (LPN) A nurse who works under the direction of a physician or a registered nurse and cares for people who are sick, injured, convalescent, or disabled.

Medical Laboratory Technician/Clinical Laboratory Technician (MLT/CLT) A laboratory professional that analyzes body fluids and tissues, examines blood samples, and calibrates and sterilizes medical lab equipment, typically under the direction of a MT/CLS.

Medical Technologist/Clinical Laboratory Scientist (MT/CLS) A laboratory professional that analyzes body fluids and tissues, performs complex analyses, and establishes and monitors quality control.

Nuclear Medicine Technologist A health care professional that utilizes radioactive materials (radiopharmaceuticals) to acquire images of organs, which are used to determine the progression of certain diseases or illnesses.

Nurse Managers/Clinical Director A nurse who manages the nursing staff at a particular facility. They are responsible for recruitment and retention of nursing staff, and overseeing them. They occasionally collaborate with doctors on patient care, and help assist patients and their families when needed.

Nurse Practitioner (NP) A nurse who is qualified to treat certain medical conditions without the direct supervision of a physician.

Occupational Therapist (OT) A healthcare professional who utilizes assessment and intervention to develop, recover or maintain meaningful activities of individuals.

Occupational Therapy Assistant Individuals that are directly involved in providing therapy to patients under the direction of an occupational therapist. They are involved in helping patients develop, recover, improve, as well as maintain the skills needed for daily living and working.

Pharmacy Technician A health care provider who performs pharmacy-related functions, generally working under the direct supervision of a licensed pharmacist.

Physician A person qualified to practice medicine.

Physician Assistant (PA) A medical professional who can diagnose illness, develop and manage treatment plans, prescribe medications, and often serve as a patient's primary healthcare provider, usually under the supervision of a licensed physician.

Physical Therapist (PT) A healthcare professional who aids in helping patients with health-related conditions that limit their ability to move and perform functional activities in their day-to-day lives. They may work to regain or improve physical disabilities, as well as decrease discomfort and prevent disability.

Physical Therapy Assistant Individuals who work under the direction and supervision of physical therapists. They help patients who are recovering from injuries and illnesses regain movement and manage pain.

Privacy/Security Officer An individual who is responsible for developing or ensuring that privacy and security policies are in place to safeguard protected health information.

Radiation Therapy Technician A health professional who administers radiation treatments to patients who have diseases such as cancer.

Radiographer/Radiology Technologist A health professional who specializes in X-rays, computed tomography (CT) scans, magnetic resonance imaging (MRI) scans and other imaging techniques which aid in diagnosing, monitoring, or treating a patient's injury or illness.

Registered Nurse (RN) A graduate trained nurse who has been licensed by a state authority after qualifying for registration.

Respiratory Therapist A health professional who assesses and treats patients with both acute and chronic dysfunction of the pulmonary system.

Surgical Technologist Individuals who assist with surgical operations. They prepare the operating room and set up equipment and supplies, pass surgical tools to the surgeon during surgery, as well as help to prep, monitor vitals, and transfer patients.

Ultrasound Technologist Individuals who use high-frequency sound waves to create images of soft tissue in a patient's body that are subsequently used to diagnoses abnormalities and diseases in a patient.

APPENDIX B: NORTH DAKOTA HOSPITAL WORKFORCE SURVEY

Instructions: Please answer the following questions regarding only your hospital operations. In your answers, do not include parts of your overall operation (e.g., long-term care, hospice, ambulance service, and outsourced services) or out of state care/services.

Hospital name: _____

1. Using the grid below, please answer the following questions (do not include contract employees).

Position Types	How many full time employees are currently working in this category?	How many vacant funded FTEs are you actively recruiting for in this category (in FTEs)?	If you have a vacancy, how many months have you been recruiting for the position that has been vacant longest?	How difficult is it to fill a vacancy in this category? (Please answer even if you haven't had a recent vacancy)			
				Very Easy	Somewhat Easy	Somewhat Difficult	Very Difficult
Physicians				1	2	3	4
Nursing Staff:							
RNs				1	2	3	4
NPs				1	2	3	4
LPNs				1	2	3	4
CNAs				1	2	3	4
Laboratory Staff:							
MT/CLS				1	2	3	4
MLT/CLT				1	2	3	4
Radiology Staff:							
Radiographer/radiology tech				1	2	3	4
Specialized radiology techs (e.g., MRI, CT)				1	2	3	4
Ultrasound technologist				1	2	3	4
Nuclear medicine techs				1	2	3	4
Radiation therapy techs				1	2	3	4
Health Information Mgmt:							
HIM Manager/Supervisor				1	2	3	4
Privacy/Security Officer				1	2	3	4
Pharmacy:							
Licensed pharmacists				1	2	3	4
Pharmacy technicians				1	2	3	4
Others:							
Physician Assistants				1	2	3	4
Dietitians				1	2	3	4
Physical therapists				1	2	3	4
Physical therapy assistants				1	2	3	4
Occupational therapists				1	2	3	4
Occupational therapy assistants				1	2	3	4
Respiratory therapists				1	2	3	4
Surgical technologists				1	2	3	4
Entry-level jobs (e.g., housekeepers)				1	2	3	4
Management:							
Nurse managers/clinical directors				1	2	3	4
Business personnel				1	2	3	4
Important Others (Write-in):							
				1	2	3	4
				1	2	3	4
				1	2	3	4

2. How many primary care and specialty care physicians do you employ?

____ primary care physicians (PC = FP/GP, Gen Int Med, & Gen Ped), ____ specialty care physicians

3. How difficult is it to fill primary care physician vacancies? (PC = FP/GP, Gen Int Med, & Gen Ped)

____ Very easy ____ Somewhat easy ____ Somewhat difficult ____ Very difficult

4. How much is each of these factors a problem in recruiting physicians? Please rate each problem and check the problem that most impedes your center's ability to recruit.

	Not an Important Problem			Important Problem
____ Compensation package (\$\$\$)	1	2	3	4
____ Workload and call schedule	1	2	3	4
____ Elementary & high schools	1	2	3	4
____ Finding good housing	1	2	3	4
____ Cultural activities & opportunities	1	2	3	4
____ Spousal employment opportunities	1	2	3	4
____ Condition of Hospital facility	1	2	3	4
____ Continuing education/training opportunities	1	2	3	4
____ Other: _____	1	2	3	4
____ Other: _____	1	2	3	4

5. Please list in rank order the professionals that you have the most difficulty recruiting (1 = the most difficult, 2 = next most difficult, 3 = next most difficult).

(1) _____

(2) _____

(3) _____

6. How easy/difficult is it for you to fill hospital administrator vacancies?

____ Very easy ____ Somewhat easy ____ Somewhat difficult ____ Very difficult

7. During the past year, how many days did your hospital go on "divert status" because of RN shortages?

____ Days

8. How is your emergency department staffed with physicians on weekends? *Check all that apply.*

____ Hospital physicians ____ Local physicians ____ Outside contracting physicians _____ Other

9. How many days per month do visiting specialists see patients in your hospital?
 ____ physician days
10. a) How many of your positions are regularly staffed by contract employees (i.e., outsourced services)?
 ____ contract employees
- b) Which provider types are most numerous? _____
11. In addition to your acute care beds, how many licensed swing beds are in your hospital? ____
12. What is your average daily census? ____

Hospital Characteristics

13. Does your hospital operate clinics? If yes, please indicate the number of clinics.
 ____ # RHC ____ # non-RHC
14. Is your hospital part of an ACO? If yes, please provide the name of the ACO. If not, do you intend to join an ACO within the next 1-2 years?
 ____ Yes (Name of ACO): _____
 ____ No ____ Not interested
 ____ Intend to explore in 1-2 years
 ____ Intend to join in 1-2 years
15. a. Does your hospital receive county and/or city tax support? ____ Yes ____ No ____ Unsure
 b. If yes, how much money is received on an annual basis? (Estimated amount) \$ _____
 c. What is the rate? (sales tax percent or mill levy) _____
16. If your hospital does not receive local tax support, how likely is this to occur in the next five years?
 ____ Very likely ____ Likely ____ Not Likely ____ Will not happen ____ Unsure
17. Does your hospital operate a hospital foundation to provide additional support to the facility?
 ____ Yes (skip to question 19) ____ No ____ Unsure
18. If you do not operate a hospital foundation, how likely are you to create one in the next two years?
 ____ Very likely ____ Likely ____ Not Likely ____ Will not happen ____ Unsure

Hospital Issues and Relationships

19. Please select the degree to which each of the following is a problem for your hospital.

	No Problem	Minor Problem	Problem	Moderate Problem	Severe Problem
a) Hospital reimbursement (Medicare)	1	2	3	4	5
b) Hospital reimbursement (Medicaid)	1	2	3	4	5
c) Hospital reimbursement (third party payer)	1	2	3	4	5
d) Meeting Medicare Conditions of Participation	1	2	3	4	5
e) Access to substance use disorder inpatient treatment services	1	2	3	4	5
f) Access to substance use disorder outpatient treatment services	1	2	3	4	5
g) Access to mental health inpatient services	1	2	3	4	5
h) Access to mental health outpatient services	1	2	3	4	5
i) Impact of uninsured	1	2	3	4	5
j) Impact of under-insured	1	2	3	4	5
k) Providing 24/7 pharmacy coverage	1	2	3	4	5
l) Community support for the hospital	1	2	3	4	5
m) Providing 24 hour emergency coverage	1	2	3	4	5
n) Service area economic change	1	2	3	4	5
o) Service area population change	1	2	3	4	5
p) Maintaining Updated EHR	1	2	3	4	5
q) Optimizing the capacity of the EHR	1	2	3	4	5
r) Addressing community health and wellness	1	2	3	4	5
s) Understanding and addressing population health	1	2	3	4	5
t) Understanding and transitioning to value based care	1	2	3	4	5
u) Transport of patients with mental health/substance use disorders to treatment services	1	2	3	4	5
v) Transport of patients from tertiary facility back to CAH	1	2	3	4	5

20. What one issue are you most concerned about? Your answer can be from the above list or you can expand on a new issue. Please explain why you feel this is an issue.

21. Please review the list of local/area community organizations and select the choice that best represents your view on the quality of the relationship between your hospital and the other organizations.

	Poor	Below Average	Average	Above Average	Excellent	NA - We operate this organization
a) Public health	1	2	3	4	5	
b) Clinic (non-affiliate)	1	2	3	4	5	
c) Long term care	1	2	3	4	5	
d) Ambulance	1	2	3	4	5	
e) Pharmacy	1	2	3	4	5	
f) Dental provider(s)	1	2	3	4	5	
g) Home health	1	2	3	4	5	
h) Hospice	1	2	3	4	5	
i) Economic development or Job Development Authority	1	2	3	4	5	
j) Providers of mental health/substance abuse disorders	1	2	3	4	5	
k) Human service centers	1	2	3	4	5	
l) Social services	1	2	3	4	5	
m) Local government	1	2	3	4	5	
n) School system	1	2	3	4	5	
o) Faith based organizations	1	2	3	4	5	
p) Local law enforcement	1	2	3	4	5	
q) IHS/Tribal health	1	2	3	4	5	
r) Other health organizations	1	2	3	4	5	
s) Other community organizations	1	2	3	4	5	

22. We understand that CAHs may have agreements with more than one tertiary facility. Please review each statement below regarding your relationship with your ONE primary tertiary facility and indicate the degree to which you agree or disagree with each.

Please state the tertiary hospital you will be referring to: _____

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a) The CAH/tertiary relationship is strong	1	2	3	4	5
b) The CAH/tertiary relationship is flexible	1	2	3	4	5
c) The CAH/tertiary relationship is comprehensive in terms of services provided	1	2	3	4	5
d) The CAH/tertiary relationship fosters a sense of trust between providers	1	2	3	4	5
e) I am optimistic that this relationship will grow and positively impact my hospital	1	2	3	4	5

23. In thinking about your hospital and tertiary network, what issues or subjects would you like to see the Flex program address and how so?

Medicare Rural Hospital Flexibility Program Impact

24. Please indicate the impact each Flex program service has had on your hospital. If you did not utilize a particular service, please do not answer the question items below pertaining to that service.

	Don't Know	No Benefit	Limited Impact	Moderate Impact	Substantial Impact
a) CAH Quality Network	0	1	2	3	4
b) Conditions of Participation	0	1	2	3	4
c) CAH virtual library of shared tools	0	1	2	3	4
d) CAH Pre-Conf. at Dakota Conference	0	1	2	3	4
e) Flex subaward for Comprehensive Revenue Cycle Management Analysis	0	1	2	3	4
f) Flex subaward for Chart Audits	0	1	2	3	4
g) Flex subaward for collaborative population health activities	0	1	2	3	4
h) Peer Exchange Program	0	1	2	3	4
i) Funding support to attend in state meetings and/or national conferences	0	1	2	3	4
j) Strategic planning	0	1	2	3	4
k) Community health needs assessments	0	1	2	3	4
l) Economic impact study-related products	0	1	2	3	4
m) Staff surveys (internal personnel audits)	0	1	2	3	4
n) Presentations (Boards, community groups)	0	1	2	3	4
o) Grant Writing Workshops	0	1	2	3	4
p) CAH profiles	0	1	2	3	4
q) Flex CAH governance education and resources (i.e., Board Boot Camp training, online resources, etc.)	0	1	2	3	4
r) Flex financial and operational improvement education (i.e., CAH, RHC webinar series and coding webinars, etc.)	0	1	2	3	4

25. In an effort to reduce the credentialing burden for providers, would you be willing to use a mutually agreed upon Credentialing Verification Organization (CVO) for provider credentialing applications?

Yes No

26. The Flex program is responsible for the following core focus areas to support CAHs. What future Flex activities would you suggest the Flex program consider implementing to address each of the service areas below?

a. Supporting CAHs with quality improvement: _____

b. Improving CAH financial and operational performance: _____

c. Supporting Population Health Management: _____

d. Supporting Emergency Medical Services (EMS) Integration: _____

e. Supporting community engagement: _____

27. Additional Comments to the Flex Steering Committee:

28. Please indicate your current telehealth status for the following services:

Telehealth Services	Already in place	Will start within 1 year	Will start within 2-3 years	Interested in exploring	Not interested	Main provider of telehealth services (i.e. Altru, Sanford, CHI, Avera, etc.)
Tele-dermatology (i.e. wound care)						
Tele-Dialysis (consult)						
Tele-Emergency						
Tele-Intensive Care						
Tele-Oncology						
Tele-Radiology						
Tele-Stroke						
Tele-Asthma services						
Tele-Audiology services						
Tele-Speech Therapy services						
Tele-School Nurse program						
Patient-provider consultation						
Provider-Provider consultation						
Provider Education						
Patient Education						
Other (Write In)						

29. Please indicate potential challenges or barriers in utilizing telehealth for services (please check all that apply):

- Staff costs
- Equipment costs
- Lack of clear, standardized regulatory guidelines
- Our organization is able to meet needs with in-house providers
- Difficult to implement and sustain
- Privacy and security concerns
- Providers and other health professional staff learning, utilizing, and keeping current on the equipment/technology
- Patient/client acceptance of receiving services through telehealth
- Provider acceptance, still considered experimental
- Telehealth services are reimbursed at a lower rate than in-person or not at all
- IT staff not familiar with telehealth technology
- Inadequate technology
- Connectivity (broadband) issues
- Other challenges or barriers: _____

*PPS hospitals were only asked to complete the first 12 questions of the survey

