

Hospital Medicine and Fellowship Program in Rural North Dakota – A Multifaceted Success Story

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ABSTRACT

Introduction: Recruitment of hospitalists and primary care physicians for Critical Access Hospitals and tertiary care hospitals in North Dakota is difficult. To address this challenge, 2 programs were implemented in Bismarck, North Dakota.

Methods: St. Alexius Medical Center created a hospitalist fellowship training program in collaboration with the University of North Dakota School of Medicine & Health Sciences and physicians willing to work in Critical Access Hospitals were offered a joint appointment to teach hospitalist fellows and obtain a clinical academic appointment at the university.

Results: Since it was created in 2012, 84 physicians have applied for 13 fellowships. Of the 11 fellows who have completed the program, 64% (7/11) remained in North Dakota to practice.

Conclusions: Physicians are more likely to work in a rural Critical Access Hospital if they spend time working at a tertiary care center and have clinical academic appointments. Where recruitment is challenging, hospitalist fellowship programs are helpful in meeting the health care workforce demand.

the workforce crisis in primary care and conducted research to discover strategies to improve recruitment and retention of primary care physicians.³

Primary care physicians are always needed in Critical Access Hospitals,⁴ perhaps even more so in North Dakota due to its unique challenges in recruitment and retention. These Critical Access Hospitals, as defined by the Health Resources and Services Administration, have no more than 25 inpatient beds, an average length of stay of no more than 96 hours for acute inpatient care, offer 24 hour/7-day-a-week emergency care, and must be located in a rural area at least 35 miles from any other hospital. To help address the shortage of physicians, North Dakota Senator Kent Conrad introduced federal legislation in

INTRODUCTION

The Association of American Medical Colleges has studied the supply and demand of physicians in the United States and recently predicted a shortage of 46,000 to 90,000 physicians by 2025.¹ Physician recruitment remains a major challenge for health care facilities in North Dakota.² Other investigators have noted

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1994 to allow international medical graduates—students who have come to the United States for medical education on a J-1 visa—to be recruited to underserved areas throughout the country. Once medical education is completed, the physician either returns to their home country or obtains a waiver under the Conrad 30 Waiver program, which allows them to work in the United States under certain conditions that include working full-time (40 hours/week) in an underserved area or serving populations from designated shortage areas.

Not only is there a demand for traditional primary care physicians in North Dakota, but the need for inpatient care (hospitalists) at tertiary care hospitals is equally dire. There is a new need for hospitalist training programs to address the increasing trend for employing these providers, particularly in states where it is difficult to recruit.^{5,6} Henkel has shown how hospitalists demonstrate value through an expanded scope of care on inpatient services and

admitting patients to the hospital for the primary care providers.⁷ The role of hospitalists is evolving to admit a full range of hospital patients, provide physician leadership, and partner with hospital management to improve clinical quality, and patient and staff satisfaction.⁸

St. Alexius Medical Center (St. Alexius), located in Bismarck, North Dakota, is a 309-bed tertiary care Level II Trauma Center. As a teaching hospital, medical staff serve as mentors for family practice residents and medical students from the University of North Dakota School of Medicine & Health Sciences (UNDSMHS). As the state's only medical school, the primary purpose is to train health care providers for North Dakota. Working with the state legislature, the UNDSMHS implemented a Healthcare Workforce Initiative and put forth a request for proposals for graduate medical education programs to recruit and retain health care providers with appropriate training to meet the needs of North Dakota. The purpose of this brief report is to describe and discuss the outcomes of the hospitalist program.

METHODS

The need for a hospitalist fellowship program is supported in studies documenting the impact of increasing use of hospitalists in small rural hospitals.⁹ Recognizing the challenges in meeting full medical staffing needs, St. Alexius responded to the Healthcare Workforce Initiative led by University of North Dakota by submitting a proposal to train its own hospitalists through the development of a fellowship training program in collaboration with UNDSMHS. The proposal was accepted and this university/hospital collaboration resulted in the hospitalist training program launched in July 2012 with the recruitment of 2 fellows.

The hospitalist training program was structured using the Accreditation Council for Graduate Medical Education guidelines and with assistance from the UNDSMHS's Graduate Medical Education committee. The program objectives are as follows: (1) improve skills in the practice of hospital-based medicine including critical care skills (at least 2 months in intensive care unit training), (2) improve skills in procedures commonly performed in the practice of hospital medicine (central line, abdominal paracentesis, thoracentesis, lumbar puncture, etc), (3) increase knowledge base in the core competencies in hospital medicine (6 months on the medical floor and emergency department while participating in teaching rounds, grand rounds, didactic lectures and presentations), and (4) develop skills in medical management (participating in and getting exposure to organized medical staff activities such as quality/performance improvement, utilization review, bioethics, credentialing, peer review, regulatory compliance, and risk management). Fellows are invited to participate in physician leadership education and training opportunities such as those available through the

American College of Physician Executives. A full curriculum for the program is available from the authors on request. To be considered for the program, the physician must have successfully completed an Accreditation Council for Graduate Medical Education-approved internal medicine or family medicine residency program and be eligible for licensure in North Dakota. If the candidate is not a US citizen, they must have, or be eligible for, a visa waiver. Preference is given to applicants with ties to North Dakota or those willing to stay and work in this state.

RESULTS

An E*Value program is used to evaluate the program. The fellows are evaluated by the attending physician after their rotations. The fellows also evaluate their rotation and the attending physician. Evaluations completed by the fellows indicate that they appreciate learning from complex medical patients and feel even better prepared for becoming hospitalists when given limited autonomy to cover nights with attending backup. The hospitalist attending physicians also report that having a fellow take first call decreases their call burden and improves their work/life balance. This positive evaluation led the hospital administration to approve 2 additional fellows for the next 2 years with no program modifications needed at this time. The program so far has a success rate of retaining 64% (7/11) of the graduates in North Dakota following their training.

The Critical Access Hospital recruitment program is another example of collaboration in health care. It is structured as a partnership to facilitate international medical graduates requiring a visa waiver to work in federally designated Health Professional Shortage Areas or Medically Underserved Areas/Populations as primary care providers. The hospitalist training program provides an incentive for primary care physicians to consider North Dakota by providing services approximately 160 hours every 4 weeks to the Critical Access Hospitals that have not been able to successfully recruit primary care physicians. These physicians have the opportunity to work (over and beyond 40 hours/week) at St. Alexius. This elective rotation in a tertiary care facility allows physicians working in Critical Access Hospitals to maintain their skills in managing complex medical patients, interact with multiple specialists, and stay in touch academically through teaching fellows, residents, and medical students. They are also eligible to apply for clinical faculty status at the UNDSMHS with the opportunity to access the university's library and other resources.

Because of this collaboration between Critical Access Hospitals and St. Alexius, there has been a significant improvement in the provision of medical services in rural facilities as patients are now able to receive care for mild to moderately complex medical issues locally in the rural Critical Access Hospitals. Complex patients are transferred to the tertiary care center under

Table. Hospitalist Fellowship Training Program Population

Academic Year	No. of Applicants	No of Applicants Accepted	Practice Location	
			North Dakota	Other
2012-2013	25	2	1	1 (Illinois)
2013-2014	15	4	4	1 (initially went to Wisconsin but returned to ND)
2014-2015	13	4	1	3 (North Carolina, Nevada, New Hampshire)
2015-2016	18	1	1	
2016-2017	13	2		In Process
Total to Date	84	13	7	5

the care of specialists who are familiar with rural physicians as they have developed a relationship with the physicians during their rotation at the tertiary care hospital.

CONCLUSIONS

The hospitalist training program is part of the Healthcare Workforce Initiative at the UNDSMHS and is now in its fifth year. From 2012 to present, the program has received over 80 applications with funding opportunities for 13 fellows. All fellows who completed the program chose careers as hospitalists and more than 60% were retained in North Dakota (see Table).

This program also has helped bring physicians to Critical Access Hospitals, which fills a longstanding void for many rural communities and is an asset to the hospitalist training program because it helps cover time off needed by the core hospitalist faculty. Ranji et al have indicated a need to appropriately train hospitalists, not only to improve hospital care but to provide well-trained physicians for Critical Access Hospitals.¹⁰

The positive results described in this report offer a new approach, through partnerships with tertiary care urban hospitals and medical schools, to recruiting and retaining physicians for the benefit of both rural and urban institutions. Long-term studies will determine if this fellowship program results in retention of physicians in rural areas.

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