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Adopting academic rank in a rural community practice affiliated with an academic medical center

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Abstract

Background United States rural community-based practices are increasingly participating in undergraduate and graduate medical education to train the workforce of the future, and are required or encouraged to provide academic appointments to physicians who have typically not held an academic appointment. Mechanisms to identify faculty and award academic appointments across an entire health system have not been reported.

Methods Our rural community regional practice identified academic appointments as important for participating in medical education. Over a three-year period, our regional leadership organized a formal education committee that led a variety of administrative changes to promote the adoption of academic rank. Data on attainment of academic appointments was obtained from our Academic Appointment and Promotion Committee, and cross referenced with data from our regional human resources department using self-reported demographic data.

Results We describe a successful adoption strategy for awarding academic rank in a rural regional practice in which the percentage of physician staff with academic rank increased from 41.1 to 92.8% over a 3-year period.

Conclusions Our experience shows that process changes can rapidly increase and then sustain academic appointments for physicians over time. More rural health systems may want to consider the use of academic rank to support educational programs while enhancing physician satisfaction, recruitment and retention.

Keywords Academic appointment, Promotion, Faculty development, Community practice

Introduction

Rural health systems in the United States, facing growing health disparities [1, 2] while simultaneously suffering physician workforce shortages, [3, 4] are increasingly turning to undergraduate [5, 6] and graduate medical education [7] to train, recruit, and retain the workforce of the future [8–11]. Medical schools are trying to address the rural healthcare shortage [12] through rural undergraduate medical education tracks [13] and pathways, [14, 15] while more residencies offer graduate medical education with a rural focus [7]. Additional partnerships are being formed through Area Health Education

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Centers in which communities are connected with academic institutions which seek to provide a diverse workforce through academic-community partnerships [16].

Physicians participating in undergraduate medical education in the United States are required to hold a formal academic appointment, [17] and those supervising medical residents and fellows are encouraged to pursue academic rank and may be required by their program to hold a faculty appointment [18]. Within university-based medical education programs, the use of academic appointments and rank has evolved as these practices now rely on clinical work for financial success in ways that potentially de-emphasize their traditional academic activities [19, 20]. Furthermore, since the 1990s there has been a push for expanded recognition of scholarship beyond traditional knowledge generation and funded scholarship [21, 22]. The majority of physicians in academic medical centers (AMCs) are now classified as scholarly clinicians or clinician educators [23–25]. As a consequence, large groups of US physicians who are primarily in clinical practice are now required or encouraged to hold academic rank, [17, 18] but systems for doing so have not been described. At the same time, large numbers of physicians practicing outside of a university setting, who typically have not held an academic appointment, are now participating in undergraduate and graduate medical education as a result of partnerships with medical schools and academic health centers [26, 27] through mergers, affiliations, and acquisitions [28]. More than half of community physicians partnering with an AMC report the option of receiving a faculty title [29]. Awarding an introductory academic title is primarily an administrative process within a traditional academic medical system where employment is directly linked to academic rank. However, the process for deciding which physicians in large and complex community-based systems should be considered to be medical school faculty and hold academic rank is challenging [30] and may be influenced by local need balanced against institutional and accreditation requirements.

Methods

This case report is based in part on the observations and experiences of the authors who have served in regional educational leadership (ADC, DD, JB), senior regional leadership (RAH), enterprise-level educational leadership (SNH), and important academic community collaborator leadership roles (CM) during the time period described. Additional data comes from the reports from our Academic Appointment and Promotion Committee, and our regional human resources department using self-reported data. Differences in attaining rank by sex and self-reported race were assessed by chi-square analysis for the year 2023 using a cutoff for statistical significance of $P<0.05$.

Setting

The Northwest Wisconsin region of Mayo Clinic Health System is a distinct part of Mayo Clinic that initially evolved as a relatively separate entity; it was created as a result of the merger first between Midelfort Clinic and Luther Hospital, and then with Mayo Clinic in 1992. The Northwest Wisconsin region now consists of over 300 physicians employed by Mayo Clinic and 4000 staff in a 200-bed hub hospital in Eau Claire, Wisconsin and four 25-bed critical access hospitals, with over 68,000 emergency department visits, 12,000 hospital admissions and 11,000 surgeries per year. These hospitals are all surrounded by outpatient clinics offering both primary care and specialty services [31]. Mayo Clinic Health System provides community care to patients from 15 counties of northwest Wisconsin, United States, all of which have sizable areas defined by the US Department of Agriculture as being "rural" based on Rural-Urban Commuting Area Codes using population density, urbanization, and daily commuting [32].

Physician leaders from the region around the time of the merger describe that the initial focus for the first 15 years was on learning how to deliver excellent integrated multispecialty community care in association with a tertiary referral center, with scholarly work explicitly set aside as a later priority [33]. As our region continued to mature into the 2000's, our faculty was engaged in some educational programming with affiliated educational partners, although the use of academic appointments and awarding of academic rank remained rare and underutilized.

Starting around 2015, Mayo Clinic Health System – Northwest Wisconsin leadership placed increased emphasis on training physicians to serve our rural communities, starting with the creation of a family medicine residency program and expanding to include participation in other graduate and undergraduate medical education programs within the broader Mayo Clinic system. To support our educational efforts, and to promote staff satisfaction, there was a growing expectation by leadership that nearly all physicians should be voluntarily engaged in scholarship in some form, and it is now expected that nearly all staff hold an academic appointment. When our group began tracking academic appointments in 2019, we noted that only about 40% of our staff held academic rank, and improving this number was identified as an educational priority. Here we describe our efforts to promote attainment of academic rank and our lessons learned. This study was carried out in accordance with the declaration of Helsinki, and the need for informed

consent was waived by the Mayo Clinic Institutional Review Board.

Interventions to promote the use of academic appointments

Experience directly with the academic appointment and promotion committee

The Mayo Clinic Academic Appointment and Promotion Committee serves as a single central body for all parts of Mayo Clinic that makes academic appointment and promotion recommendations based on set criteria, with the main committee reviewing proposals for Associate Professor and Professor, and a subcommittee reviewing proposals for Instructor and Assistant Professor. There is a single promotion track utilizing the same standards across all 50 recognized fields and across all Mayo Clinic campuses including Mayo Clinic Health System [29]. Mayo Clinic defines scholarship as involving the domains of research, education, and clinical or administrative innovation and the application for an academic appointment speaks to these domains. As academic rank at Mayo Clinic is not linked to salary nor tenure, the motivation to advance in academic rank may more clearly reflect an individual's commitment to excellence and to further the institutional mission. Access to Mayo Clinic resources, including clinical, educational and research support, is generally not linked to academic rank. Services provided by faculty with and without academic appointments do not differ, although faculty participating in medical education are expected to hold academic rank.

In January 2020, a physician from our region for the first time was appointed to the Academic Appointment and Promotion Committee. This first-hand experience provided important insights to regional leadership about the process and expectations around academic rank [34] that were subsequently leveraged to enhance adoption of academic rank. Furthermore, having a regional leader involved in the committee allowed for important regional input as processes were streamlined.

Leadership structure

Our regional educational leadership was given a more formal structure in 2018 with the formation of a standing education committee with a Chair and Vice Chair. It was charged with promoting education in our region, including the use of academic appointments, to facilitate our undergraduate and graduate medical education efforts. This committee meets quarterly supplemented by ad hoc meetings of subgroups. In 2019 we formed an awards subcommittee and created a distinguished educator award to recognize outstanding contributions to education in the region. In January 2021 we formed a Scholarly Activities Subcommittee to link our growing number of medical students and residents with departments interested in pursuing scholarly work. Furthermore, we sought to place our regional educational leaders into education-related Mayo Clinic enterprise-wide committees, including the medical school curriculum committee, academic affairs committee, graduate medical education committee, and the library advisory committee.

Streamlined review process

The burden of preparing a full application for new faculty for the entry-level appointment to instructor was widely perceived as a barrier to academic appointment. In August 2021, our enterprise-wide Academic Appointment and Promotion Committee adopted a streamlined process to apply for the rank of instructor. Using this new pathway, proponents only need to enter administrative details about the applicant along with the *curriculum vitae* that was used during the hiring process which is now provided directly by our human resources group. This application is reviewed by the Chair of the Instructor/Assistant Professor Subcommittee, and if acceptable, is then be endorsed at the monthly meeting of the Academic Appointment and Promotion Committee.

Dissemination to departments and physicians

To enhance familiarity with academic rank and build the value placed on scholarship within our region, we communicated with physicians and physician leaders in a variety of ways. Formal presentations and meetings with entire departments and department chairs occurred throughout 2020 ($n=10$), starting with departments with the largest number of physicians without academic rank. This was supplemented with presentations at a meeting of all Department Chairs in June 2021 and presentations at the newly created Academic Grand Rounds in July 2020 and again in August 2022. Our long-term goal was to create a culture shift in which department chairs and other physician leaders would eventually take the lead on encouraging faculty to obtain academic rank and promotion.

Enhanced regional onboarding processes

Beginning in early 2020, our regional human resources staff began sharing the *curriculum vitae* of new staff, obtained during the recruiting and hiring phase, with our education assistant to facilitate uploading to our centralized system immediately upon onboarding. In July 2020, our regional personnel committee endorsed a new process in which all newly hired physician staff would meet with a member of our education committee to review our region's academic opportunities and the individual's accomplishments. This meeting would culminate in an email to the new staff member's department chair, indicating a suggested a level of academic appointment

(generally Instructor or Assistant) along with an offer of further support and guidance. These meetings occurred 5 times in 2020, 28 times in 2021, and 21 times from January to August 2022. A summary of the changes to promote adoption of academic rank over time is summarized is Fig. 1.

Enhanced mentoring efforts

To promote scholarship, academic recognition, and leadership development, our region strengthened mentoring of faculty in a number of ways. Based on nominations from department chairs, our regional vice president and chair of the physician personnel committee formed an early-career leadership group, followed by formation of a mid-career leadership group, both of which meet quarterly. These groups have focused on leadership development and pitfalls, using popular books on leadership as tools to spark discussion. Our region also joined Mayo Clinic enterprise-wide mentoring efforts, including those that specifically seek to support women and minority leaders and emerging senior leadership.

Results

The earliest available data regarding academic rank for physicians within our region dates to February 2019, when 41.1% held rank, including 28.0% as instructor, 13.1% as assistant professor, and no associate professors or professors; 2.1% had an application submitted and pending, and 198 of 336 (58.9%) physician staff had no rank. In the first quarter of 2022, >90% of physicians had achieved an academic appointment, during which we continued our maintenance activities around academic rank but did not initiate new activities. As of July 2023, among 362 physicians, 92.8% held rank including 55.2% as instructor, 36.2% as assistant professor, 0.8% as associate professor, and 0.5% full professor; 3.0% had an application submitted and pending; only 15 physicians (4.1%) had no rank (Fig. 2).

We compared our data on academic appointments to data available from our human resources department which collected similar data on an annual basis along with self-reported sex (male/female) and race (white/all other races [35]) when available. There were no statistical differences in percentage of physicians attaining academic rank by sex (Fig. 3 panel A, $P=0.58$) or race (Fig. 3 panel B, $P=0.38$).

Discussion

Provision of academic appointments is required for faculty of graduate and undergraduate educational programs that are increasingly being used to train the workforce of the future and recruit and retain current staff. The use of scholarship supported by academic appointments and promotion may further assist in faculty recruitment and retention. To our knowledge, this is the first description of a strategic plan to promote the adoption of academic rank in an entire rural community-based clinical practice in the United States to support scholarship in general and graduate and undergraduate medical education in particular. Rather than selectively focus on key teaching faculty, we sought to provide an academic appointment for all physicians in our region who met our institutional criteria. We saw no statistical differences in success in attaining academic rank between men and women nor between racial groups, although our ability to identify important differences is limited by the nature of our data. We believe that three factors were primarily responsible for the rapid adoption of academic rank: first, recognition of the role of academic rank in our system; second, a large cadre of faculty who already had evidence of scholarship and met criteria for academic appointment; and third, a streamlined process for applying for academic rank. By focusing on these three aspects concurrently, we were able to increase the proportion of faculty with academic rank from 41% to >90% over a period of 3 years. It is also notable that these gains were achieved in the midst of the COVID-19 pandemic, when additional administrative time was limited, suggesting that other health systems may be able to implement similar changes with minimal effort. Furthermore, the percent of faculty with academic rank remained steady from 2022 to 2023 when we ceased new efforts but continued our sustainment

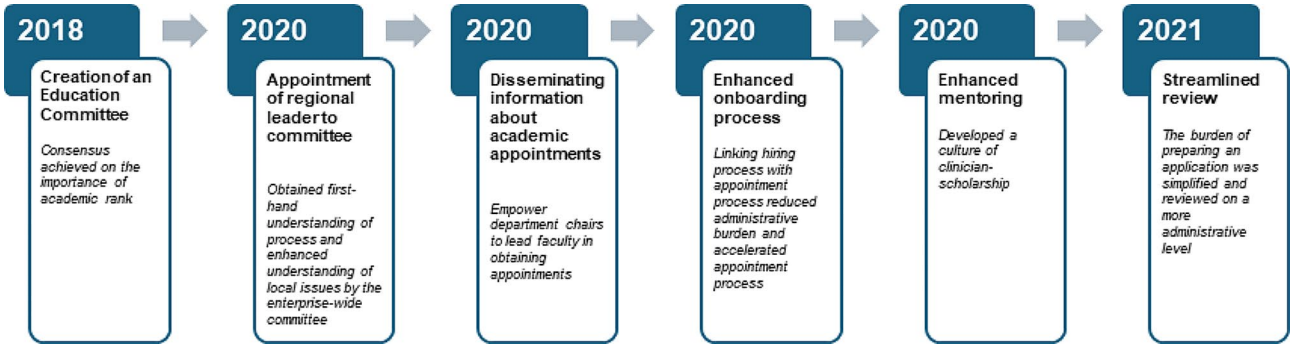


Fig. 1 Summary of Administrative Change to Promote the Adoption of Academic Rank over time

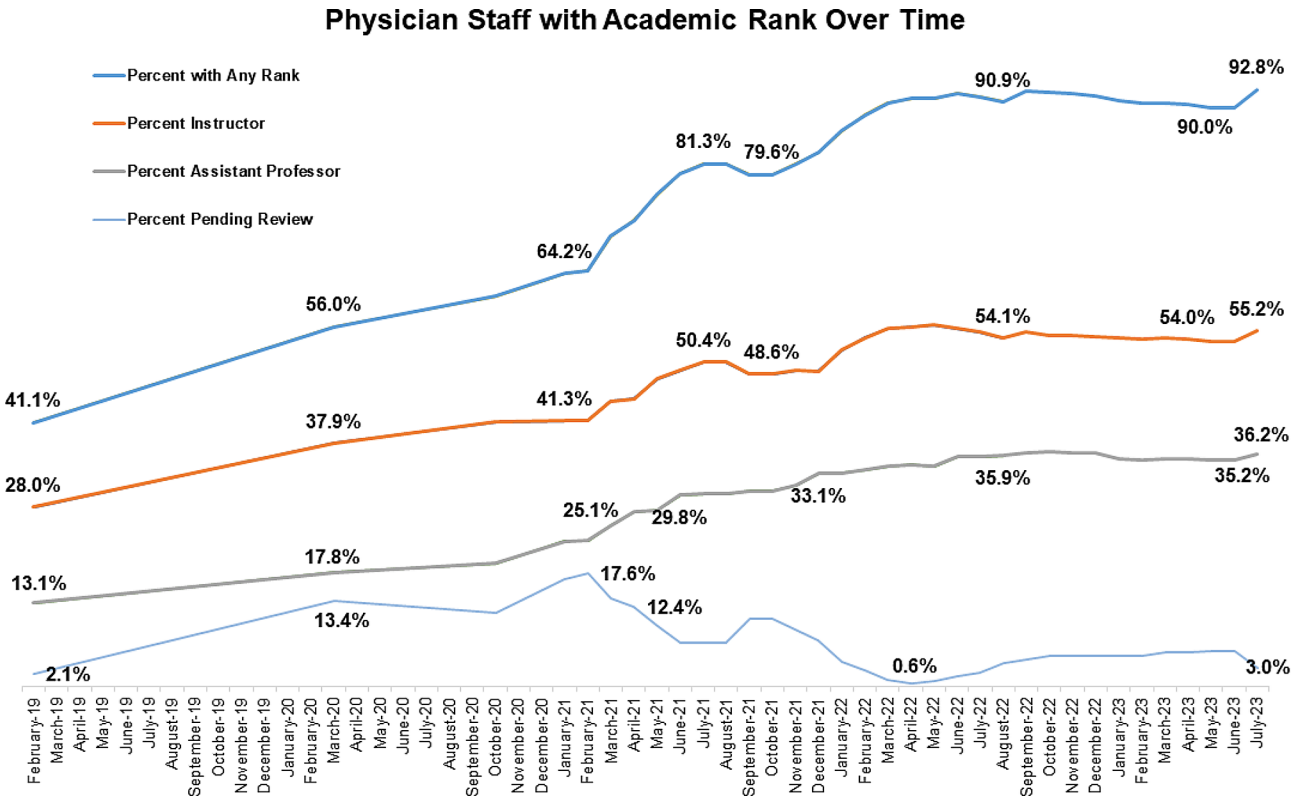
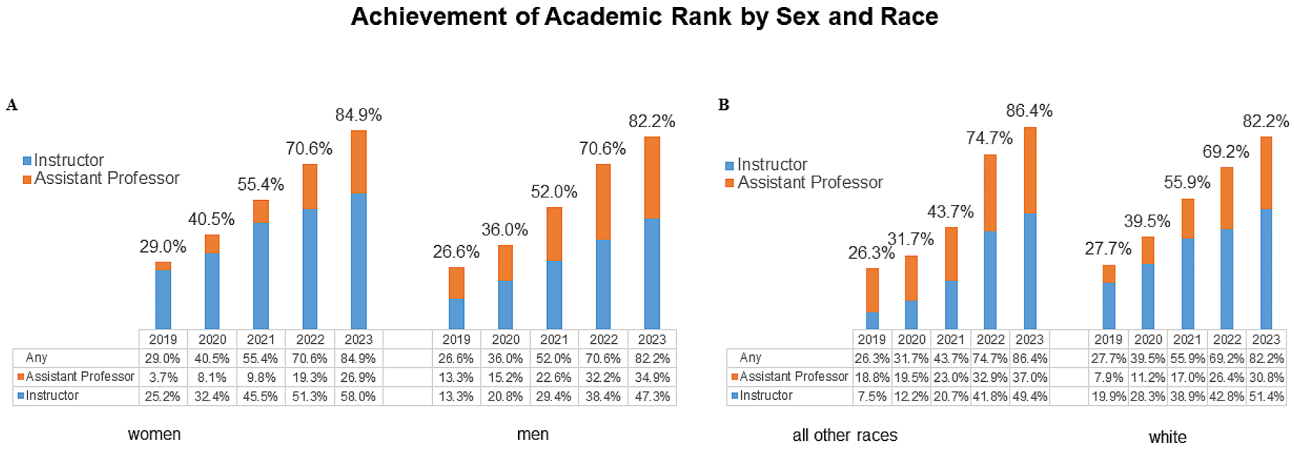


Fig. 2 Percentage of physician staff holding academic rank over time



	women 2019	women 2020	women 2021	women 2022	women 2023	men 2019	men 2020	men 2021	men 2022	men 2023
Any	29.0%	40.5%	55.4%	70.6%	84.9%	26.6%	36.0%	52.0%	70.6%	82.2%
Assistant Professor	3.7%	8.1%	9.8%	19.3%	26.9%	13.3%	15.2%	22.6%	32.2%	34.9%
Instructor	25.2%	32.4%	45.5%	51.3%	58.0%	13.3%	20.8%	29.4%	38.4%	47.3%

	all other races 2019	all other races 2020	all other races 2021	all other races 2022	all other races 2023	white 2019	white 2020	white 2021	white 2022	white 2023
Any	26.3%	31.7%	43.7%	74.7%	86.4%	27.7%	39.5%	55.9%	69.2%	82.2%
Assistant Professor	18.8%	19.5%	23.0%	32.9%	37.0%	7.9%	11.2%	17.0%	26.4%	30.8%
Instructor	7.5%	12.2%	20.7%	41.8%	49.4%	19.9%	28.3%	38.9%	42.8%	51.4%

Fig. 3 Academic rank over time among self-reported women and men (Panel **A**) and race (Panel **B**) defined as white/all other races

activities. Given the feasibility of adopting the use of academic appointments broadly across an entire rural health system, we suggest that other systems consider the use of academic appointments to support medical education while enhancing physician satisfaction, recruitment, and retention. Below we explore these three factors for academic rank that are likely common to other health systems and some potential approaches for success, along with Figure 1 which outlined our strategic activities, purpose, and application to other health systems.

Recognition of the importance of academic rank

Perhaps most important to the rapid and near universal achievement of academic rank among physicians who traditionally would not hold an academic appointment was the recognition of the importance of an academic appointment to the individual, the learners, and the organization. To go beyond the requirement that all faculty that supervise medical students and trainees have a faculty appointment, [17] our regional leadership team placed significant value in achieving academic rank for all physicians in our region involved in any form

of scholarship. By incorporating processes specific for awarding academic rank into the onboarding process, meeting with and presenting to departmental chairs, and through creation of teaching awards, we believe that attainment of academic rank is now viewed as feasible and an important component of the work of being a physician in our system. Due to this cultural shift in which achievement of academic rank is expected by faculty and department chairs, we've been able to re-allocate regional-level resources to other needs. We hope that appreciation of academic rank will further success in teaching, research, and innovation, that combined with our clinical focus, will form what has been termed "the virtuous cycle" [36].

While academic rank historically has not been a feature of community-based medical systems in the US, and financial success largely depends on clinical work in ways that may compete with time for scholarly activities [19, 20], there is growing evidence that rank may serve as an important tool for staff recruitment, retention, and professional development. The use of academic rank may help combat burnout and promote staff retention. Burnout is increasingly recognized as a problem among US physicians, [37, 38] with calls to regularly assess and address burnout [39, 40]. In general, physicians with an academic affiliation report less burnout, [41–43] and in some settings there is graded relationship between higher academic rank and protection from emotional exhaustion [41]. Recognition of scholarly contributions among clinically-oriented faculty could conceivably attenuate factors promoting professional dissatisfaction [44] and abandonment of academic practice, [45–47] which comes at great cost to the institution [48, 49]. At the same time, the factor that appears most protective against burnout is the ability to focus on the aspect of work that is most meaningful, which among physicians has most commonly been reported as patient care (68%) [50]. Thus, working in a hybrid academic-community practice that emphasizes clinical work may be powerfully protective against burnout it if it aligns a strong desire to provide patient care with aspects of an academic practice that are also protective, supported by the awarding of honorific titles [51].

In addition to potentially enhancing physician career satisfaction, academic rank can be used as a useful marker of scholarly accomplishment, and is often seen as a requirement for ascending into more senior leadership roles in academic settings [52]. Whether academic rank is important in community or hybrid practice has rarely been reported in the medical literature, [53] but could become important as community practices embrace an academic mission.

Lack of attainment of academic rank, and the senior academic ranks in particular, may lead to fewer leadership opportunities, a finding that has been demonstrated most strongly in women [52, 54]. Concern has previously been raised about the lack of women and minorities [55, 56] in academic leadership positions which may impair role modeling and mentoring of junior colleagues [57, 58]. As academic rank may be increasingly important in identifying mentors for junior faculty, [59] our regional leadership continue to actively pursue faculty development initiatives, including those that support women and minorities and explicitly address academic rank among both mentees and mentors. So far, we have seen no differences in rates of attainment of academic rank between men and women, and we continue to monitor these metrics. Mentorship and sponsorship has not been systematically studied outside of academic settings, [60] but there is reason to believe that distance mentoring, using expertise from outside the region, [61] may be effective and promote staff retention [62] and is something our regional leadership has discussed.

Finally, academic rank may be uniquely valuable for the individual faculty member looking to advance his or her academic career in a different institution. As a relatively universal metric, academic rank can serve as a marker of achievement that is recognized outside the institution.

Faculty with pre-existing evidence of scholarship

We were able to rapidly increase the percentage of faculty with academic rank because, like many other academic-community centers, [23–25] our physician faculty have had opportunities in medical education and research for many years, which generated a large cadre of staff who already met the requirements for academic rank at the level of instructor or assistant professor. A challenge for the next era of our evolution is in generating faculty who meet criteria for academic rank at the senior levels (associate professor and professor). This will require efforts to address many of the same barriers encountered at traditional academic health centers, which can include inadequate faculty preparation, difficulty in obtaining research support, and clinical demands [63] and among women and minorities, fewer resources at the beginning of the career, lack of mentoring, a less supportive academic environment, and family responsibilities [57, 64–67]. To address these larger issues, our region is working to forge and strengthen regional educational affiliations, leverage the resources across all our campuses, and grow a culture of scholarship.

Enhanced process for applying for academic rank

A final factor to our region's success in embracing academic rank was an enhanced academic rank application process. We identified a number of logistical barriers in the application process that are likely common in other health systems. While our data do not explicitly indicate

which efforts were most helpful, subjectively it seemed that a formalized process for onboarding new faculty and transferring their information into our faculty scholarship database was most helpful. By standardizing the process for transferring the *curriculum vitae* used during the hiring process into our database that records scholarly activities, updating it by dedicated staff, and reviewing it during a one-on-one meeting with an experienced member of our educational team, we were able to quickly and efficiently generate high-quality applications for rank for new faculty. This system seemed particularly efficient as the vast majority of the applications from our region were approved without needing to seek additional information. This, together with new processes that streamlined the review by the Academic Appointment and Promotion Committee, seemed important in preventing a backlog of applications; the number of pending applications fell from a maximum of 17.6% in February 2021 to a low of 0.6% in April 2022 (Fig. 2). After obtaining rank for the majority of our current physicians, we now anticipate that the effort to obtain rank will be relatively narrowly focused on new physician hires and during periodic reviews by department chairs.

Sustainment

An important component of our experience is the sustained success in achieving academic appointments for our faculty. After the first quarter of 2022, when >90% of physician faculty attained rank, we re-allocated resources away from new activities around academic rank to other educational priorities. We have continued to utilize a formal leadership structure with an education committee and scholarly activities sub-committee, continued to offer a distinguished educator award, and physicians from our region continued to serve on enterprise-wide educational committees. Through July 2023 we have not seen a decrement in physicians achieving academic rank. We hypothesize that this is because we have achieved a form of culture shift in which regional leaders now view attainment of academic rank among their faculty as part of their role, they understand the resources available to assist them, and feel empowered to advocate for academic appointments for their faculty.

Limitations

Our study has several limitations. Our data collection systems allowed examination of only a small segment of relatively recent history, and data had to be retrieved from two different sources to examine sex and race allowing for only very basic analysis that may fail to detect important differences. Furthermore, our data is cross sectional and group-level, allowing for only tenuous individual-level conclusions, and minimal inference into the trajectory of academic progress over time and differences between specialties or field of rank. And finally, as a single-system study, our experience may not apply to healthcare systems with different characteristics. On the other hand, since our system does not strictly link employment with an academic appointment, our experience may be insightful to other rural-based health systems which also do not link employment with an academic title nor provide tenure.

Future directions and application to other medical systems

The practice of academic medicine in the US is increasingly spreading beyond the traditional university-based medical center and into integrated clinical practices, [19] including rural and community-based medical centers and private practice settings [68, 69]. These practices may be affiliated with traditional AMCs in a variety of ways, leading to a multitude of blended models [29]. Rural and community-based physicians in these academic medical system increasingly have a scholarly role, [29] particularly as rural US health systems turn to undergraduate [5, 6] and graduate medical education [7] to train, recruit, and retain the workforce of the future [8–11]. Similarly, there are a growing number of regional medical campuses for undergraduate medical education, [70] with no one standard approach to academic rank. How these academically-affiliated medical systems handle academic appointments and promotion, and how they integrate the academic appointment process with the use of academies [71–73] has not been reported and is likely evolving over time. Our institutional leadership has taken the view that nearly all physicians involved in scholarship should hold academic rank, which is more inclusive than accreditation requirements [17, 18] and may promote staff satisfaction, recruitment, and retention. We have outlined a series of changes that we have enacted, with minimal cost, that facilitated the rapid adoption of academic appointments, and believe that many of these can be applied to other systems as well. We anticipate continued evolution and a diversity in approaches to rural medical education across the globe, and the use of academic appointments as local patient, learner, and faculty needs are harmonized with broader institutional and national accreditation requirements. Supported by a broad definition of scholarship, [21, 22] and aligned with clinical responsibilities, physicians have reported increased job satisfaction and less burnout when engaged in academic activities. Embracing academic rank, in parallel with efforts to provide scholarly opportunities, may be the challenge for medical systems in the next decade. Tracking burnout [39, 40] using the best available evidence [41, 42, 44] while also seeking to link academic appointments with career satisfaction [41, 42] and meaning in work [50] may provide leaders with additional support for

embracing academic appointments beyond the accreditation and institutional requirements for hosting training programs.

Like many integrated community practices, our region's initial priority was in the delivery efficient multispecialty community care and not scholarship, and thus academic rank was not emphasized until recently. As our region has developed its academic mission, we are now attracting faculty who wish to provide excellent community care in a scholarly context. How our rural system balances the need to provide clinical services to our communities while spending more time on scholarship will remain an ongoing challenge with some parallels and differences from traditional University-based systems. We anticipate that over time this changing physician workforce will further enhance the use of academic rank and attainment of the senior academic ranks.

Conclusions

Rural community-based practices in the United States are increasingly participating in undergraduate and graduate medical education to train the workforce of the future, which requires provision of academic appointments to participating faculty. Our experience shows that process changes can rapidly increase and then sustain academic appointments for physicians over time across an entire rural region. Other rural health systems may want to consider the use of academic appointments to support education and to enhance staff satisfaction recruitment, and retention.

Author contributions

AC helped conceptualize the manuscript, manage, analyze, interpret the data, and draft the manuscript. DD helped conceptualize the manuscript, interpret the data, and draft the manuscript. JB helped conceptualize the manuscript, manage, analyze, and interpret the data, and draft the manuscript. SH helped conceptualize the manuscript, interpret the data, and draft the manuscript. CM helped conceptualize the manuscript, interpret the data, and draft the manuscript. RH helped conceptualize the manuscript, manage, analyze, interpret the data, and draft the manuscript.

Funding

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Data availability

The datasets can be made available from the Corresponding Author on reasonable requests.

Declarations

Ethics approval and consent to participate

The above referenced application was reviewed and determined to be exempt from the requirement for IRB approval (45 CFR 46.104d, Category 4(ii)) by the Mayo Clinic Institutional Review Board and the need for informed consent was waived. This study was carried out in accordance with the declaration of Helsinki.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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