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Ensuring the future of Rheumatology: A multi-dimensional challenge and call to action

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Introduction

Two articles published in Arthritis and Rheumatism (1) and Arthritis Care and Research (2)this month project a startling picture of the future of the rheumatology workforce in the US. The Rheumatology Workforce study describes how, based on a variety of contributing factors, there will be inadequate numbers of practicing rheumatologists and rheumatology health professionals to care for patients with rheumatic and musculoskeletal diseases in the coming years. It further describes how limitations in our training pipeline may exacerbate this situation. These two important manuscripts serve as a call to action to understand and address the wide range of factors that contribute to these issues. This will require important strategic initiatives by professional societies, government, practice groups and

training programs in order to assure a healthy and vibrant rheumatology workforce. Indeed, the new strategic plan for the American College of Rheumatology represents an important starting point for this process. In this editorial, we will summarize some key findings in these two papers and highlight some of the key strategies to consider as we rise to meet these challenges.

Key factors affecting the rheumatology workforce

The Rheumatology Workforce study highlighted several factors that underlie the challenges ahead and can best be summarized as a monumental problem with both supply and demand. The demand for rheumatologists will be driven by the changing demographics of the United States. As described in Battafarano et. al., predictably, as our population ages and the prevalence of some rheumatic diseases increases, we will need more providers to care for these patients. More intriguing however are some heretofore un-described supply factors that will have a dramatic impact. The same aging demographic that will result in increasing the prevalence of rheumatic disease also pertains to the impending retirement of a significant portion of our workforce. The generation of baby-boomers and their children is proportionately larger than the generations that follow, resulting in a shrinking workforce.

Perhaps one of the most important contributions of this workforce study are the novel findings based on two other important demographic shifts. Our specialty is privileged to be an attractive one for women; this is to the betterment of our society and to the population of women who are often disproportionately affected by auto-immune diseases. Women in medicine tend to feel the responsibilities of maintaining a work-life balance more acutely than men do. As such, many women in medicine choose to work part-time. Factoring this reality into the data is a major methodologic advance represented in this study. There are also newly anticipated generational differences, with millennials of both sexes expected to place even greater value on work-life balance in a way that will also result in more providers choosing not to work full time. The answer to this is not to question their work ethic or dedication, but rather to embrace strategies that will welcome more millennials into the workforce. Necessarily, a wide array of actions will be needed and every rheumatologist and rheumatology health professional has a role to play in our future, as do our professional societies, our government and our patients. We will highlight some of the most important actions we can take to help avert the predictions in these two papers.

Improve Recruitment and Training

When we reflect on how we chose rheumatology, often we can point to an experience during our training. It was frequently a caring mentor, a challenging patient, an inspirational attending or early exposure to the intriguing nature of rheumatology that was most influential. Medical training necessarily focuses on the breadth of the field, but we must ensure that exposure to rheumatology happens in a meaningful way throughout the long journey of training. All medical school graduates should attain basic level of knowledge and skills about rheumatic and musculoskeletal diseases during undergraduate medical education. Further, fundamental musculoskeletal and rheumatology curricula should be included in primary care residency training programs. We need to elevate rheumatologists to positions of prominence in communities, hospitals, universities and departments of medicine. As medical school curriculums shift to earlier exposure to clinical experience, we need rheumatologists volunteering as small group preceptors, physical exam instructors and career mentors. We need rheumatology practitioners to reach out to local schools and communities and engage in the unique and invaluable mentorship and teaching that they can provide. We need curricula that highlight the depth and complexity of medicine embodied in our specialty. We need our women and men to support all students, trainees and faculty, but especially women and underrepresented minorities at each stage of their career so that they see our specialty as their natural home within medicine. There is need for rheumatology mentoring of medical students and residents. We challenge every rheumatologist, academic or private practice, to find a way to inspire a new trainee in our field. Further, when we are successful in our endeavors to inspire the next generation of rheumatology professionals, we need adequate numbers of and funding for training programs. While the number of students entering medical school has risen substantially, the number of residency and fellow training slots has not. There is need for increased GME funding to add more rheumatology fellowship training programs. That likely will require both new and larger programs and a renewed commitment from governments, universities and professional organizations such as the American College of Rheumatology (ACR), Rheumatology Research Foundation (RRF) and Arthritis Foundation (AF) to step up and provide funding.

Address Retention and Distribution

Less often discussed is the distribution of rheumatologists within the country and this is particularly evident in pediatrics. There are a significant number of states without a single pediatric rheumatologist and most are working in academic and urban settings. Even in states like Massachusetts with robust numbers of rheumatologists, there are localities across the state and in neighboring ones where "rheumatology deserts" exist. Encouraging qualified candidates from underserved areas to enter

rheumatology training may help mitigate shortages in those areas; as these new trainees will be more likely to go back to their native regions. Therefore, we must strive to create new rheumatology training programs in regions that do not have one while also creating more training positions nationally. In many specialties, including family medicine, data suggest that trainees are most likely to practice within 50-100 miles of their training program(3) , and so more training positions in Boston, New York and San Francisco cannot be the only approach. We also need to focus on creating incentives, government and otherwise, for rheumatology providers to choose to practice where they are most needed. There is need to enable international rheumatology trainees to stay in the US and not have to return to their home countries after training. Visa programs should be developed that will allow international trainees to stay here and encourage working in underserved areas. Finally, student loan forgiveness programs, especially for pediatric rheumatology, will help to attract bright young physicians into rheumatology.

Promote Scientific Discovery

Rheumatology saw a boom in interest following the advent of biologic therapies. The impact of these therapies on our patients and our specialty cannot be overstated; however, it is likely that some of the decreased interest in our specialty in recent years is due to two related factors(4). The first factor is the lack of new therapies in many disease areas. There were only one or two novel drugs approved each of the last three years in the rheumatology space. This is discussed in more detail below. Second, there is a marked slow-down in investment in research. The breakthrough therapies that will entice the next generation to enter our field are threatened by inadequate funding for biomedical research that fails to keep pace with general economic indices of growth. Decline in funding also threatens the pipeline of the next generation of rheumatology researchers who will make the discoveries and treat the patients who will desperately need our services. There seems to be a trend amongst academic rheumatologists to move into private practice for financial reasons and better job security. This is a challenge when we need to add to and develop new training programs. Thus, there is a critical need for increased funding for rheumatology research in order to realize the cures our patients envision and increase faculty retention to train future rheumatology professionals.

Tackle Reimbursement and Payment redesign

Rheumatologists earn less than many other specialists in medicine (5) and with the rising cost of medical training (6) many potential candidates choose more lucrative specialties. Therefore, our efforts to improve reimbursement for services not only affect the health of existing practices but incentivize

future generations. The ACR and many other organizations spend a great deal of time advocating for changes to provider reimbursement with this fact in mind. As the payment paradigm shifts from fee for service to value based payment we see both threats and opportunities. Current programs designed to create value based incentives such as PQRS, MIPS, and ACOs are wholly inadequate with respect to appropriate recognition of and reimbursement for the scope of services we provide. Because we believe unquestionably that rheumatologists provide the best value to patients with rheumatic diseases, the ACR seeks to develop payment models designed by, and intended for practicing rheumatologists. By shifting partially away from office-based encounters to supporting important activities such as care coordination, consultation expertise, telephone and telemedicine encounters, and multi-disciplinary care teams, physician-focused payment models could help us do more, with less. Leaders in government do not understand how best to care for patients with rheumatic disease, and so we must continue efforts in advocacy to educate them and provide solutions and a path forward. We should advocate to reduce administrative and practice hassles by reducing insurance barriers and health care regulations. A fair amount of time is spent every day in these unproductive activities by providers and their staff. If these could be eliminated, more time can be spent by rheumatologists and rheumatology health care providers in patient care. It may also encourage physicians considering retirement for these reasons to continue in the workforce. This may incentivize retired rheumatologists and care providers to consider returning to work in part time or locum positions.

Enhance Workforce Diversity

The stark numbers presented in both manuscripts require innovative solutions. Even doubling the number of trainees completing fellowship programs will be insufficient. Creating a new payment model that helps us keep patients who don't need it out of the hospital and, to some extent, out of our offices will likewise be insufficient. To meet the looming workforce shortage we will need to find new ways to work with other physicians and other health professionals to supplement the care we provide. The current state of education for nurse-practitioners (NPs) and physician assistants (PAs) largely misses rheumatology and this will have to change. Practices wishing to hire these individuals must often train them on the job with few resources. To promote the preparation of NPs and PAs for the care of our patients the Association of Rheumatology Health Professionals (ARHP) recently developed the NP/PA Rheumatology Curriculum Outline. To help support the costs of training, the Rheumatology Research Foundation will support Mentored NP/PA Education Awards to help onboard these high-value providers.

Yet, too few NPs and PAs are drawn to rheumatology – this is due in part to a lack of exposure and outreach to educational programs. Effective outreach and promotion of the benefits of the field are required. Revisiting practice models will be required to maximize the workforce. For example, physical and occupational therapists, nurses, behavioral scientists and practice managers trained in maximizing reimbursement and efficiency are poised to have an important impact, as well. Many of these efforts are well underway, but more must be done.

Conclusion

The American College of Rheumatology and the Association of Rheumatology Health Professionals have several key missions, among them education, research, advocacy and patient care. It is easy to see that meeting the projected workforce shortage requires activity from the full breadth of our efforts. The latest ACR strategic plan (7) challenges the entire College to understand how the work they do will benefit our workforce and increase the numbers of rheumatologists and rheumatology health professionals available to meet this need. We will likewise need training programs and their academic affiliates to work at local levels to bolster our numbers. And because the practice community represents the linchpin of our connection to patients and communities, we will need to find more ways to insure their survival and create opportunities for growth. The ACR and ARHP remain focused on ensuring a vibrant future for our providers and for the growing number of patients who will surely need us.

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