Studies reveal looming shortage of rheumatologists

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Two new articles provide insights on the outlook of rheumatology in the United States, noting that the need for rheumatologists will greatly exceed the projected growth of the rheumatology workforce over the next 15 years. As noted in Arthritis Care & Research, this is due to an increasing aging patient population, a wave of impending baby boomer rheumatologists retiring, and changing practice trends for new rheumatologists. In *Arthritis & Rheumatology*, experts note that there has been an increase in the number of rheumatology fellowship programs and an increase in the number of fellows being trained in these programs; however, even a doubling of the number of fellows being trained would not meet the projected rheumatology workforce needs in 2030.

In the Arthritis Care & Research study, investigators used a modeling approach incorporating primary and secondary data sources to project supply and demand of the rheumatology workforce—including physicians, nurse practitioners, and physician assistants who diagnose and treat conditions including osteoarthritis, gout, rheumatoid arthritis, lupus, vasculitis, and other autoimmune diseases—through 2030.

The 2015 adult workforce was estimated to be 6013 providers (5415 clinical full-time equivalent [FTE] providers). Estimating the clinical FTE of rheumatology providers is important to better reflect rheumatology providers working full-time seeing patients versus other rheumatology providers who may work as part-time clinicians in private practice or in an academic rheumatology teaching practice. Clinical FTE

describes the percentage of work effort devoted to clinical care to reflect a more realistic picture of patient access to care (e.g., two providers each caring for patients 50% of the time would together equate to 1.0 total clinical FTE). By 2030, the supply of rheumatology clinical providers is projected to fall to 4882 providers or 4051 clinical FTE, and demand is projected to exceed supply by 4133 clinical FTE.

The investigators also noted that there is a geographic maldistribution of adult rheumatologists across the United States, and this will worsen in the coming years. For example, 21% of adult rheumatologists were in the Northeast in 2015, compared with only 3.9% in the Southwest. In 2015, the ratio of rheumatology providers per 100,000 patients by region ranged from 3.07 in the Northeast to 1.28 in the Southwest. By 2025, there is an anticipated decrease in this ratio in all regions ranging from 1.61 in the Northeast to 0.50 in the Northwest.

"Decreasing insurance barriers and healthcare regulations may allow more rapid, timely, and creative solutions to offset the projected rheumatologist shortage and the maldistribution of rheumatologists in the United States," said senior author Seetha Monrad, MD, of the University of Michigan. "Based on our projected rheumatology workforce shortages, innovative strategies will be needed to address access to patient care, as it will not be possible to solve the supply-demand gap by training more rheumatologists alone."

In their *Arthritis & Rheumatology* study, the investigators applied similar modeling methods to adult rheumatology training programs and graduates entering the adult rheumatology workforce. "The supply of rheumatologists in the workforce is dependent upon the training of new rheumatologists to join our specialty," said lead author Marcy Bolster, MD, of Massachusetts General Hospital. "It is imperative to create innovative ways to expand the rheumatology workforce, and this will involve new ways to fund graduate medical education training."

The study found that in 2015, there were 113 adult rheumatology programs with 431 of 468 available positions filled. The projected clinical FTE number entering the workforce each year was 107; this number was impacted significantly by gender and generational trends. For example, men currently comprise 59% of the rheumatology workforce, but the proportion is expected to drop to 43% by 2030. Also, millennials comprise 6% of the current workforce but by 2030, the percentage will rise to 44%. Prior studies have demonstrated that women work 7 fewer hours per week and see 30% fewer patients than men, and both male and female millennials in 2015 saw fewer patients compared with their counterparts in 2005. The study also found that 17% of current fellows who are international medical graduates say they plan to practice outside the United States.

"It is apparent that the workforce expansion innovations will require resources devoted to education and training, and it may be helpful to consider incentives to attract new entrants in the workforce to areas in greatest need of rheumatologists," said senior author Daniel Battafarano, DO, MACP, of the San Antonio Military Medical Center. "Clearly other workforce expansion tactics such as care provided by nurse practitioners and physician assistants, telemedicine, and ensuring that current rheumatology care providers remain in the workforce will be needed as we create a multi-faceted approach to addressing rheumatology workforce needs over the next decade."

More information: Marcy B. Bolster et al, 2015 Rheumatology Workforce Study: The Role of Graduate Medical Education in Adult Rheumatology, *Arthritis & Rheumatology* (2018). DOI: 10.1002/art.40432

Daniel F. Battafarano et al. 2015 American College of Rheumatology Workforce Study: Supply and Demand Projections of Adult Rheumatology Workforce (2015-2030), *Arthritis Care & Research*

(2018). DOI: 10.1002/acr.23518

William F. Harvey et al. Ensuring the future of Rheumatology: A multi-dimensional challenge and call to action, *Arthritis & Rheumatology* (2018). DOI: 10.1002/art.40431