

# Trends in Geriatrics Graduate Medical Education Programs and Positions, 2001 to 2018

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## Abstract

It is no secret that the average age of the U.S. population is increasing, and this has special significance for the U.S. health care system. The number of individuals above 65 years old is predicted to increase 55% by 2030, and all the while, there is a looming physician shortage, one especially relevant for Geriatricians. Therefore, current Geriatricians must have objective information to assess the past, present, and future state of this important specialty. However, little literature exists regarding the recent changes in Geriatrics-related graduate medical education programs. In the present study, we use data from the Accreditation Council of Graduate Medical Education, to characterize quantitative trends in Geriatrics graduate medical education between academic years 2001-2002 and 2017-2018. We find that, when Hospice/Palliative Care is excluded, Geriatrics-related graduate medical education programs have grown by just 1.1% when adjusting for population growth. There are 58 fewer total filled Geriatrics and Geriatric Psychiatry positions in 2017-2018 than there were in 2001-2002, a population-adjusted decline of 23.3%. Our results confirm the growing notion that the Geriatrics specialty may need to alter its approach toward professional supply, if it is to meet the growing health care demands of an aging U.S. population.

## Keywords

education, labor force, graduate medical education, fellowship

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## Introduction

The growing demand for U.S. physicians is primarily driven by a growing U.S. population (Association of American Medical Colleges [AAMC], 2015). In particular, an increased population of older persons: according to the AAMC, the number of individuals above 65 is expected to grow 55% by 2030. This will, of course, create a significant demand for physicians well-versed in treating older adults. Geriatrics professionals have long been aware of this growing need, and continue to outline important skills and outcomes for the future of geriatric care. Despite this demand and awareness, however, future physicians have comparatively little interest in Geriatrics (Kane, 2002). While the principles which guide Geriatrics—patient-centered care, management of chronic illness, and attention to a patient's goals and functioning—are highly valued, the specialty has yet to grow its numbers to meet current and future demands (Tinetti, 2016).

But the importance of caring for older adults remains, and its relevance is steadily increasing. As such, health care professionals must understand current and future

outlooks for the Geriatrics subspecialties. One way to do so is by examining demand-side predictions, such as future needs for inpatient services. Another approach is to examine the past and present trends in Geriatrics education, and characterize how this specialty has evolved its training over time. Graduate medical education (GME) is a particularly important factor. However, few studies have evaluated recent quantitative trends in Geriatrics GME. The purpose of this study was to fill this knowledge gap, and characterize overall trends in U.S. Geriatrics GME programs and positions, between 2001-2002 and 2017-2018. Using such insight, Geriatricians and other medical professionals may better understand their current state as it pertains to a growing U.S. population of older persons.

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## Method

To analyze the past and present state of Geriatrics-related GME, we utilized the Accreditation Council of Graduate Medical Education (ACGME; 2017) Data Resource Book. The number of ACGME-accredited Geriatrics-related subspecialty programs were recorded for each academic year, from 2001-2002 to 2017-2018. The following subspecialties were included in this analysis: Geriatrics (Family), Geriatrics (Internal), Geriatric Psychiatry, and Hospice/Palliative Care. Although Hospice/Palliative Care was listed by the ACGME as “Multidisciplinary,” we chose to include this subspecialty because of its relevance for late-in-life health care. The number of on-duty fellows (labeled “Filled Positions” for simplicity) was also analyzed for each academic year.

Population data from the U.S. Census Bureau was used to account for population growth. When making such adjustments, we took the percent population growth between 2001 and 2018, and multiplied this by a given 2001-2002 GME quantity (e.g., number of Geriatric Psychiatry programs). This product was then added to the original 2001-2002 quantity, giving the Expected 2017-2018 quantity (in this case, expected number of Geriatric Psychiatry programs). The Expected quantity was then subtracted from the corresponding Actual 2017-2018 quantity (from ACGME). Finally, the Actual-Expected difference was divided by the Actual quantity, and this quotient was multiplied by 100 to yield the population-adjusted percent change from 2001 to 2018. When discussing our results, we presented quantities for both the actual number of GME programs and positions, and the percentage growth relative to the U.S. population. All data were organized and analyzed in Microsoft Excel (Microsoft Excel for Office365, Version 1711, Microsoft Corporation, Redmond, WA). This study was not required for review by the Stanford University Institutional Review Board.

## Results

Between the 2001-2002 and 2017-2018 academic years, total GME rose from 7,838 to 10,799 programs. The U.S. population grew by 14% over the same period, yielding an increase of 21% (population-adjusted) in GME programs. The Geriatrics specialty (taking Hospice/Palliative Care into account) had even greater relative growth, from 182 to 342 programs (64.6%; Figure 1a). However, when Hospice/Palliative Care was not included, this increase was much lower, from 182 to 210 programs (1.1%). Only two subspecialties, Geriatrics (Family) and Hospice/Palliative Care, demonstrated both actual and population-adjusted program growth. Geriatrics (Family) increased from 23 to 46 programs (75.2%), while the ACGME gave accreditation to 63 Hospice/Palliative Care programs in 2009-2010, increasing to 132 programs by 2017-2018 (92.3%; Figure 1a).

In contrast, Geriatrics (Internal) added just nine programs between 2001-2002 and 2017-2018 (−4.3%). Geriatric Psychiatry declined in both actual and population-adjusted program levels, from 62 to 58 programs (−18%).

The trend in total GME filled positions mirrored that of GME programs, rising from 96,416 to 135,608 filled positions (23.2%; Figure 1b). Filled Geriatric GME positions increased from 463 to 760 (43.8%) when Hospice/Palliative Care was included. However, the Geriatric specialty declined in actual and population-adjusted (−58 positions, −23.3%) filled positions when this subspecialty was omitted (Figure 1b). This was due to a large Hospice/Palliative Care growth between 2009-2010 and 2017-2018, from 120 to 355 ACGME-accredited filled positions (171.5%). Geriatrics (Family) was the only subspecialty to gain filled positions from 2001-2002 to 2017-2018 (38 to 53 positions, 22.2%). Geriatrics (Internal) declined from 325 to 291 filled positions (−21.6%), while Geriatric Psychiatry declined from 100 to 61 filled positions (−46.6%).

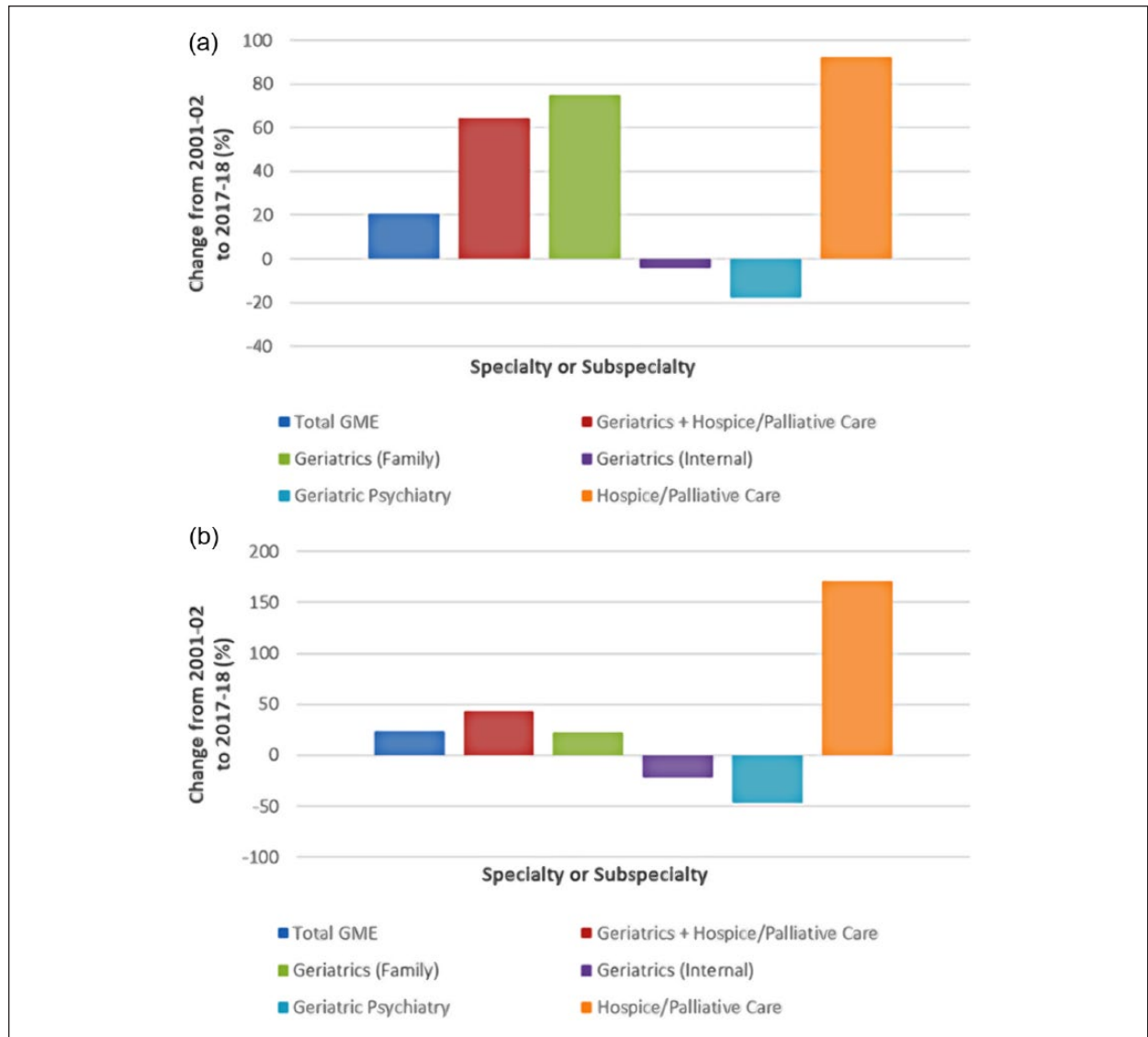
## Discussion

Our results have several key implications, as the growing U.S. population of older persons has long been of public health significance (AAMC, 2015). Namely, that if supply has not risen to meet demand, Geriatricians may need to alter their approach to ensure high-quality care for the rising population of older adults.

For example, one recent commentary suggested that “the right metric for success [in Geriatrics] should not be the number of fellowship slots filled, but rather. . . the number of older adults that clinicians care for using geriatric principles” (p. 1401) (Tinetti, 2016). Some professionals believe that the specialty will not meet demands by recruiting more young Geriatricians; rather, they believe Geriatricians should ensure that primary care, specialty care, and surgical professionals are equipped to treat older adults as well (Callahan, Tumosa, & Leipzig, 2017). In this paradigm, specialty Geriatricians would be responsible for the most complex and frail patients.

One might ask whether such a strategy would be sufficient to bear the full breadth of an aging U.S. population. We believe the answer is Yes—if implemented properly through systemic, methodical, multidisciplinary efforts. These efforts would require a wide host of physicians to embrace continuing medical education (CME) initiatives. Such endeavors would not be easy—no doubt requiring time and money. Still, more patients might benefit from this approach of multidisciplinary Geriatrics training, than from even a marked increase in Geriatrics fellows.

But even more so—what if both are done? What if innovative recruitment methods led to more Geriatrics fellows, while integrated training led to a health care



**Figure 1.** Percent change in ACGME-accredited geriatrics-related subspecialty (a) programs and (b) positions, 2001-2002 to 2017-2018.

Note. Data were sourced from the ACGME Data Resource Book. Data organization and analysis was done in Microsoft Excel, Version 1711. ACCGME = Accreditation Council of Graduate Medical Education; GME = Graduate Medical Education.

system well-versed in basic Geriatrics principles? In that case, the aging U.S. population would be met with a diverse, much-expanded caregiving resource: the health care system itself. This is far from a perfect approach, of course, and could still allow for shortage of care. But such strategies may provide the greatest level of high-quality geriatric care, to the greatest number of older patients.

Indeed, this paradigm has already been implemented in parts of the U.S. health care system. In 2009, a diverse group of physicians developed 26 Geriatrics-specific competencies for U.S. medical students (Leipzig et al., 2009). In 2015, the U.S. Department of Health and Human Services allotted over US\$35 million to the Geriatrics Workforce Enhancement Program (GWEP), for the purpose of interprofessional Geriatrics CME and

community-based geriatric health care initiatives (Swantek, Boyle, Santos, & Streim, 2016). These initiatives give hope for an aging U.S. population, even as high-volume and procedure-based specialties continue to receive greater reimbursement than Geriatrics. At the same time, an increase in older adults does suggest related increases in especially complex patients. Therefore, more Geriatrics fellows will still be needed in the future. We cannot postulate which approaches might best address this need, but it may—like Hospice and Palliative Care—involve physicians, writers, and public speakers who can bring Geriatrics into the public imagination. Books, articles, and podcasts on the practice and importance of this specialty could, for example, leverage the popularity of narrative medicine—which has become increasingly prominent among the general public.

However, the drop in Geriatric Psychiatry positions does pose a particular challenge, given the importance of later-in-life psychiatric care. Indeed, older patients often struggle to find and maintain adequate mental health care (Unützer et al., 1999). However, collaborative and integrative geriatric care might still benefit older individuals. In the past, groups have used multidisciplinary, interwoven caregiving approaches to successfully treat older adults with depression (Unützer et al., 2002). For example, consider this hypothetical scenario: a licensed case manager (a nurse or psychologist) tracks and directs the treatment of an older patient with depression; this patient is seen regularly by her primary care physician, who is also supported by a supervising psychiatrist, specialized nurses, a psychologist, and a social worker; the team meets once each week, discussing the patient's illness and treatment developments. This strategy has already been used to treat older persons with depression, and similar methods could address a wide range of psychiatric conditions. Of course, such an approach requires significant effort and contribution from non-Geriatrics professionals. The necessary integration and coordination would not be trivial, either. Nonetheless, health care teams united under Geriatrics principles might lighten the indicated load on Geriatric Psychiatry GME.

One limitation of our study was the exclusive consideration of ACGME-accredited programs and positions. Certain Geriatrics programs may not be ACGME-accredited, and we were unable to include them for analysis. Another limitation existed in the scope of this study: because we only examined trends in Geriatrics GME, we did not consider aging or retiring Geriatricians. As such, this study does not address any net flux within Geriatrics. Future studies might evaluate the quantity of retiring Geriatricians over the same period our study, to characterize this flux. In addition, researchers could survey medical students, as well as resident and experienced Geriatricians, to compare their perspectives and ideas for treating an aging U.S. population. Finally, future studies might examine the number of filled versus vacant Geriatrics fellowship positions, among the subspecialties described in this study. This would promote more-nuanced discussion of the relevant findings. Such work might also survey U.S. geriatrics fellowship program directors, probing their perspectives on the supply-demand dichotomy among prospective Geriatricians.

Taken together, our results quantitatively demonstrate that the Geriatrics specialty has stagnated in ACGME-accredited programs, and declined in positions since 2001-2002. This is despite a well-publicized aging of the U.S. population. Our analysis provides objective information for Geriatrics professionals, who are equipping the health care system to meet demand from older adults. Recent policies and strategies have already risen

to begin this process; it is up to current and future professionals to ensure an effective continuation.

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