Results of the 2013 National Resident Matching Program®: Family Medicine

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BACKGROUND: The percentage of US seniors who chose primary care careers remains well below the nation's future workforce needs. Entrants into family medicine residency programs, along with their colleagues entering other primary care-designated residencies, will compose the primary care workforce of the future.

METHODS: Data in this article are collected from the 2013 National Resident Matching Program® (NRMP) Main Residency Match and the 2013 American Academy of Family Physicians (AAFP) Medical Education Residency Census. The information provided includes the number of applicants to graduate medical education programs for the 2013–2014 academic year, specialty choice, and trends in specialty selection.

RESULTS: Family medicine residency programs experienced a modest increase in both the overall fill rate as well as the number of positions filled with US seniors through the NRMP in 2013 in comparison to 2012. Other primary care fields, primary care internal medicine positions, pediatrics-primary care, and internal medicine-pediatrics programs also experienced modest increases in 2013. The 2013 NRMP results show a small increase in medical students choosing primary care careers for the fourth year in a row.

CONCLUSIONS: Changes in the NRMP Match process in 2013 make a comparison to prior years' Match results difficult. Medical school admission changes, loan repayment, and improved primary care reimbursement may help increase the number of students pursuing family medicine.

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Each year, medical school graduates participate in the National Resident Matching Program® (NRMP). The American Academy of Family Physicians (AAFP) Medical Education Division annually acquires and analyzes the NRMP data for the number and percentages of US medical students and international graduates entering family medicine and other specialties. The information on the number of applicants to enter graduate medical education (GME) programs for the 2013–2014 academic year beginning July 1, 2013, the specialties the applicants chose, and the trends over time, especially in primary care, may prove useful for advocates of family medicine GME programs. Entrants into family medicine residency programs, along with their colleagues entering other primary care-designated residencies, will compose the primary care workforce of the future.

Methods

The AAFP Medical Education Division conducts a Residency Census (Census) annually by querying family medicine residency program directors through an online survey. AAFP staff contacted initial nonrespondents by telephone to ensure a 100% response rate. Program directors listed all first-year residents and their medical schools, including the month and year of graduation. The US allopathic (MD) graduates reported are verified by contacting the medical school registrars or by the American Medical Association (AMA) Physician Masterfile data for graduates with a graduation date between July 1, 2012, to June 30, 2013.[1] Residents reported in the Census who graduated outside July 1, 2012, to June 30, 2013, are not independently verified. The American Association of Colleges of Osteopathic Medicine provided the number of graduates from each college of osteopathic (DO) medicine.[2] Data reported in the Census includes the number of DO and internationally trained

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family medicine residents in Accreditation Council of Graduate Medical Education (ACGME) accredited residencies.[3] The AAFP Institutional Review Board deemed this analysis exempt.

2013 Family Medicine Match Results

Preliminary information available from the 2013 NRMP indicates that for family medicine residency programs, 2,938 positions filled out of 3,062 positions offered (96.0%). This represents an increase in the number of family medicine residency positions offered and filled through the NRMP compared with 2012. Included in this category are combined programs with an ACGME number for family medicine: family medicine-psychiatry, family medicine-emergency medicine, family medicine-preventive medicine, and family medicine-internal medicine programs. Since more US seniors participated in the NRMP in 2013 compared with 2012 (17,487 versus 16,527), the percentage of US seniors who chose family medicine decreased slightly (8.4% versus 8.5%).

Table 1 shows that the number of positions offered, filled, and filled with US seniors in the Match increased from 2012 to 2013. The percentage filled in the Match declined minimally. Two pediatric and internal medicine residencies are designated primary care. Since the matching students have selected the primary care-designated internal medicine or pediatric residency, they most likely will practice primary care rather than to subspecialize after residency. The majority of internal medicine-pediatric physicians practice primary care with 20%–25% entering a subspecialty fellowship after their initial residency.[4] Table 1 also shows the non-family medicine primary care positions also increased in the number of positions offered, filled, and filled with US seniors from 2012 to 2013. In aggregate, family medicine, internal medicine-primary care, pediatrics-primary care, and internal medicine-pediatrics offered 391 more positions compared to the 2012 Match and 92 more US seniors matched into primary care in 2013 than in 2012. Overall, 52% of positions in the primary care specialties filled with US seniors in the 2013 Match.

Figure 1 shows the percentages of US MD, DO students, international medical graduates (IMGs) who entered family medicine residencies in 2013. As the proportion of US MD, DO, and US-citizen international medical graduates increase, the percentage of non-US citizen IMGs decreases.

Discussion

The increase in the number of family medicine positions filled in the Match continues the trend of the last 4 years. The trend of positions offered and filled in the Match has followed a sine wave over the last 22 years (see "Family Medicine Residency Positions Offered in the Match, Positions Filled in the Match, and Positions Filled With US MD Seniors" at www.stfm.org/fammed_match.cfm). The highest number of offered family medicine residency positions in the Match occurred in 1998 during the growth of "managed care," peaking at 3,293 positions. Between 1998 and 2008, however, family medicine experienced a net loss of 390 residency positions with at least 40 family medicine residency programs closing.[5] By 2009, only 2,555 positions were offered in the Match. From 2008 to 2012, a small recovery in offered positions occurred, with an increase in 110 positions (2,654 to 2,764). The threefold higher increase in positions offered in the Match this year could be due to several factors discussed here.

New Family Medicine Residencies

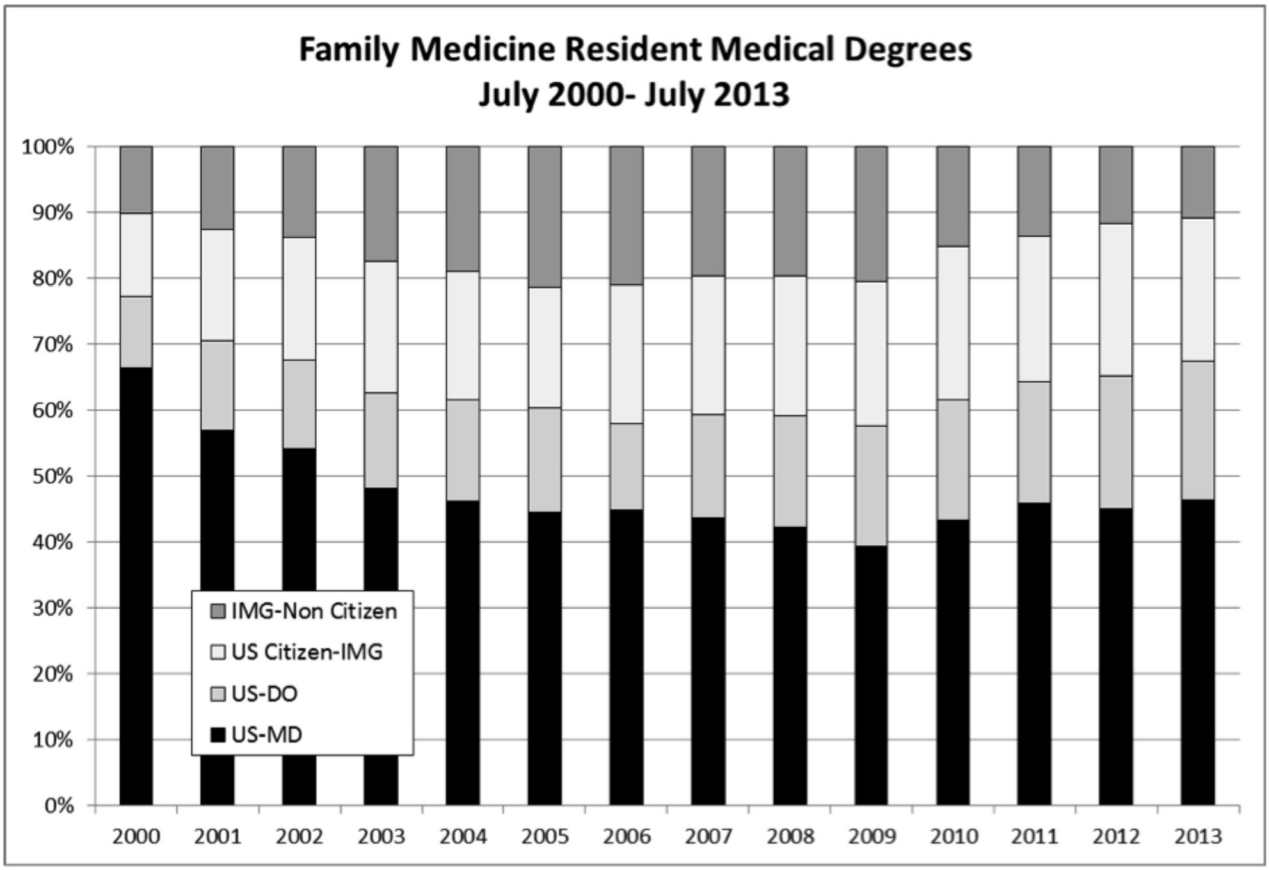
Between 2008 and 2011, only 10 new ACGME-accredited family medicine residencies were approved. Since 2011, the number of new programs has almost doubled over that previous 3-year total. Between January 2012 and March 2013, 18 new family medicine residencies have been approved by the ACGME (Figure 2). While an exact number of positions in these new programs is not

Table 1: Total Positions Offered in Primary Care Specialties and Filled With US Medical School Seniors in the 2012 and 2013 NRMP Matches

Year	Total Family Medicine	US Seniors	Total IM-PC	US Seniors	Total Pediatrics-PC	US Seniors	Total IM-Peds	US Seniors	Total	US Seniors
2012	2,611	1,335	300	286	64	27	349	276	3,324	1,924
2013	2,938	1,374	331	300	83	30	363	312	3,715	2,016
Change	327	39	31	14	19	3	14	36	391	92

IM—internal medicine
PC—primary care
Peds—pediatrics

Figure 1: Composition of Family Medicine Residency Classes, by Medical School Degree



yet known, estimating four to seven residents per first-year class would add only 72–126 new family medicine residents.

The "All-In" Policy[6]

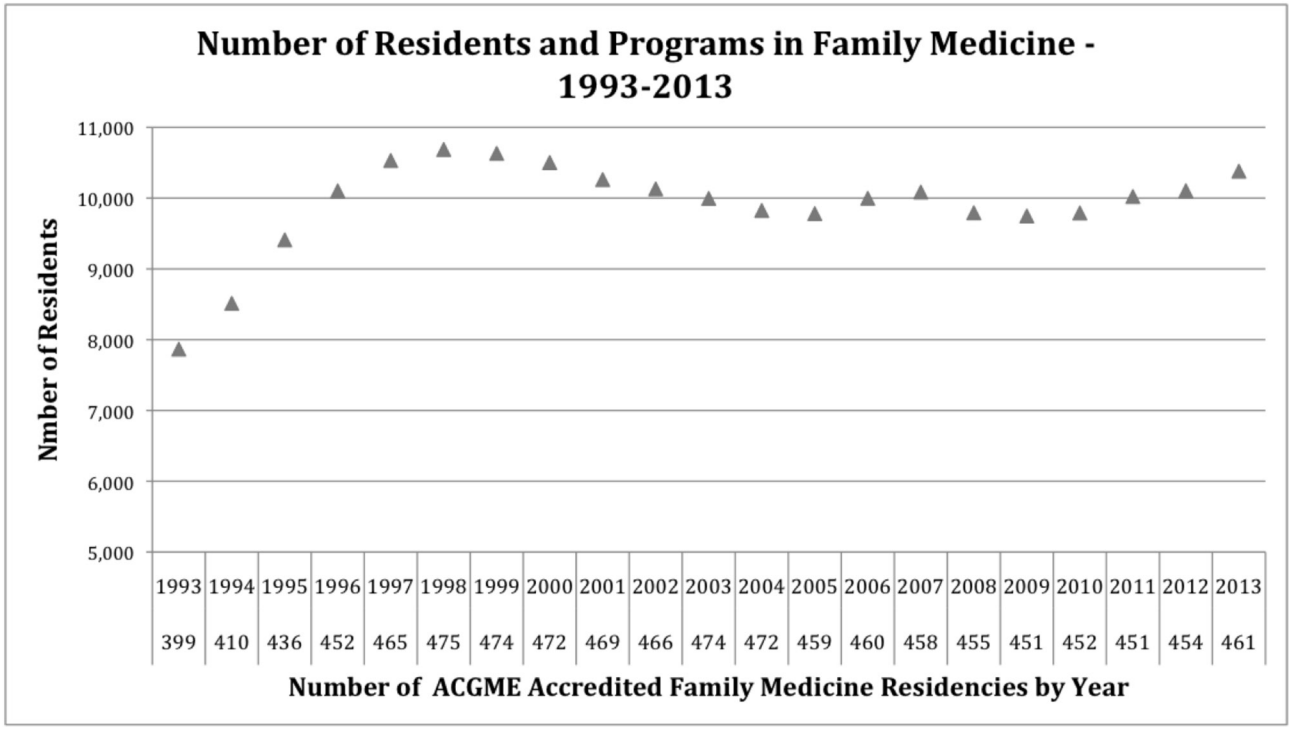
The increase in positions offered may also reflect a recent change in NRMP policy. 2013 is the first year of the "All-In" NRMP policy[6] that stipulates residencies participating in the 2013 Match cannot sign applicants who could start between February and July 2013 outside of the Match. Residencies that previously may have signed agreements with eligible applicants (DO or IMGs), such as family medicine and internal medicine and pediatric primary care residencies, may have entered all their positions in the 2013 Match in order to fill all available positions.

For graduating US MD medical students, the NRMP All-In policy may have had little effect. For DO and IMGs, the applicants who could sign with residencies outside of the Match, the All-In policy may have had significant impact. More DO and IMG applicants may have participated in the 2013 Match since the All-In policy restricted them signing agreements outside of the Match. The 2013 Match is the second year of the NRMP's Supplemental Offer and Acceptance Program® (SOAP)[7] that offered successive match cycles to non-matched applicants. The 2013 institution of the NRMP's All-In policy and SOAP affects the ability to accurately compare this year's Match fill rate to previous.

Increased Medical School Enrollment

MD-granting medical schools are projected to expand their enrollment by over 30% by 2017–2018.[8] Sixty-two percent of the increase is due to more students matriculating on original or new branch campuses of medical schools accredited before 2002.[8] The 16 new medical schools in the process of the Liaison Committee on Medical Education (LCME) accreditation will account for 31% of the enrollment growth by 2017, with enrollment at three schools in LCME applicant status accounting for the remainder of the increase.[8,9] The American Osteopathic Association (AOA) had its own matching program in February 2013. DO students matching into DO family medicine residencies increased 11%, from 433 to 472 students over

Figure 2: Number of Residents and ACGME-Accredited Family Medicine Residencies—1993–2013



2012.[10] The number of DO-granting medical schools expanded from 19 in 2002 to 37 in 2013, including branch campuses and satellites.[11] Osteopathic medical school first-year enrollment has approximately doubled from 2,968 in 2002 to 5,627 in 2012 and is projected to reach 6,699 by 2017.[12] DO medical school graduates can also participate in the NRMP Match. In 2013, 15.9% of DO graduates (711 of 4,458) entered ACGME-accredited family medicine residencies.[13] Many of the family medicine residency positions in the AOA match are in programs that train both MD and DO medical graduates. One quarter of allopathic family medicine residencies are accredited by both the ACGME and the AOA (117/461 residencies).[3]

Implications for the Primary Care Workforce

Medical schools typically report all students entering pediatrics, internal medicine, and family medicine as their primary care production, which substantially overestimates the number of physicians who will practice primary care because it does not accurately project future medical practice of these graduates. More than 80% of internal medicine-categorical residents will subspecialize.[14] A more accurate indicator of practicing primary care physicians is measuring primary care production 2 years after the completion of the initial residency.[15] All of the residencies whose graduates will provide primary care noted an increase in their fill rate in 2013. Of the four primary care specialties in the Match (family medicine, internal medicine-primary care, pediatrics-primary care, and internal medicine-pediatrics), family medicine has the largest number of offered and filled positions in 2013, filling eight-fold more positions than the next largest primary care specialties in the Match. Ninety percent of family medicine residents practice primary care 5 years after medical school graduation;[16] thus, it is the number of family physicians a medical school produces that more accurately reflects its primary care production.

The United States needs sufficient family physicians to be the foundation of a health care system that meets the triple aim: improved patient care, improved quality, and lower costs.[17] This year's increases in the number of new family medicine residencies and the number of US medical school graduates entering family medicine is encouraging. However, the increase is far from the number of graduates needed to move from the current 32% physicians practicing primary care to the reach the target of "at least 40% primary care physicians" needed to ensure the nation's health care access and improve the health care expenditures and outcomes for the future as recommended by the Council on Graduate Medical Education (COGME) 20th Annual Report "Advancing Primary Care."[14]

The dramatic increase in medical school enrollment, as championed by the American Association of Medical Colleges (AAMC)[17] has not yet translated into increased US seniors entering family medicine. To meet the nation's primary care needs, medical schools must increase efforts to matriculate and support medical students interested in primary care. Efforts to expand scholarships and loan assistance for students entering medical school interested in primary care is crucial to address the escalating educational debt that may negatively impact students' specialty choice in primary care.[19] Despite challenges, there is cause for hope. The accelerating changes in the health care system may improve primary care reimbursement, decreasing the specialty-to-primary care salary gap.[13] These systematic and environmental changes, coupled with the continued uptick in student interest in family medicine are a cause for optimism.

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