It may also explore the potential for development of a common practice economics dataset that could be routinely collected by practices participating in research and quality improvement activities.

James W. Mold, MD, MPH Chair of the Committee for the Advancement of the Science of Family Medicine



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### FAMILY MEDICINE MATCH RATE INCREASES SLIGHTLY

### Number Still Insufficient to Meet US Demand for Primary Care

First, the good news. For the 3rd straight year, family medicine attracted more graduating medical students, according to preliminary figures released by the National Resident Matching Program (NRMP), also known as the Match. The gains made, however, were smaller than in the past 2 years.

This year, family medicine residency programs filled 2,611 positions out of 2,764 positions offered, for a fill rate of 94.5%. That's only a slight improvement on last year's record-high fill rate of 94.4%.

In addition, 34 more family medicine positions were offered in 2012 compared with 2011, and 35 more positions were filled in 2012 compared with 2011.

A total of 1,335 US seniors matched to family medicine in 2012—an increase of 18 seniors compared with 2011. But for the first time since 2002, fewer US seniors participated in the NRMP than in the preceding year: 16,527 in 2012 vs 16,559 in 2011.

Stan Kozakowski, MD, director of the AAFP Division of Medical Education, told *AAFP News Now* that because of a rule change, 2012 was the last year that any graduate medical education positions could be partially filled outside of the Match. "Next year, programs must have their positions 'all in' or 'all out' of the Match," he said.

Kozakowski also noted that the AAFP does not yet have all the critical statistics in hand. "A more complete picture of the state of family medicine residency programs will be known when an annual census is completed prior to the start of the academic year on July 1," he said.

AAFP Match data include family medicine, family medicine-psychiatry, family medicine-emergency med-

icine, family medicine-preventive medicine, and family medicine-internal medicine programs.

#### Keep the Ball Rolling

Despite the fact that the 2012 numbers stayed in the positive column, AAFP President Glen Stream, MD, MBI, of Spokane, Washington, expressed concern.

Family medicine's 2012 Match numbers barely increased from 2011 numbers and certainly did not indicate enough growth in the specialty to keep up with America's increasing demand for family physicians, he told *AAFP News Now*.

"Family medicine is the foundation of improved health care in this country," said Stream. "We must continue to promote programs that generate and sustain student interest in the specialty."

Stream noted that health system reform is under way, and initiatives such as CMS' Primary Care Incentive Program and private payer pilot projects were designed to increase payment to primary care physicians in general—and family physicians in particular for delivering high-quality care in a patient-centered medical home environment.

However, that work is far from finished.

According to a preliminary 2012 Match report prepared by the AAFP Division of Medical Education, the earning power of physicians who choose medical specialties other than primary care continues to overshadow primary care physician incomes.

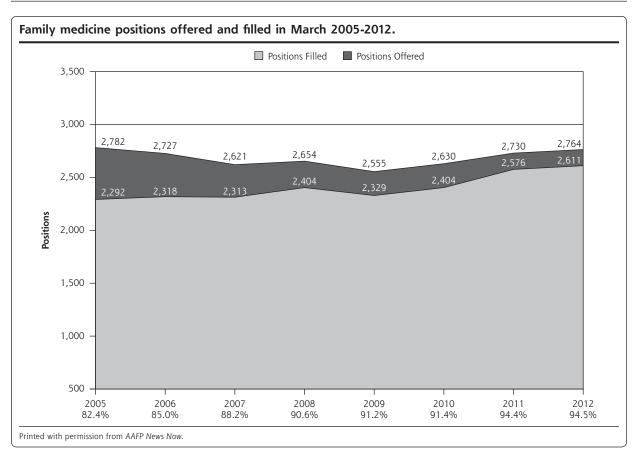
"An analysis of the relationship between physician salaries and specialty choice found that US seniors are predominantly choosing the more highly compensated specialties," said the report, adding that "the dramatic increase in the income gap between primary care and other specialties" must be appropriately addressed.

"Americans need access to primary care doctors, and the path to filling that pipeline with future family physicians is clear," said Stream. "Several things need to happen, including narrowing the income gap between primary care and other physician specialists, reforming the medical education infrastructure, changing the system that funds graduate medical education, and increasing support for programs such as the National Health Service Corps and health professions training programs."

The AAFP report suggests that a vibrant family medicine workforce depends on multiple factors, including the ability to

- recruit students to the specialty
- train family medicine residents to provide health care within the framework of a patient-centered medical home and
- sustain family physicians in practice

Family physicians "provide the kind of care the nation says it wants and needs," said the AAFP report.



"The challenge for the future is to clearly communicate with policymakers, educators, medical students, and the public that a well-trained, adequately equipped and equitably distributed family physician workforce is key to health care in the United States."

#### Newly Matched Students Embrace Family Medicine

Those challenges, however, were not necessarily top of mind for at least 4 students at the University of Missouri-Kansas City (UMKC) School of Medicine.

UMKC confirmed that this year, 40% of its graduating class of 86 matched to primary care programs, including family medicine, internal medicine, pediatrics, and ob-gyn. Four students matched into family medicine.

George Harris, MD, UMKC's assistant dean for years 1 and 2 medicine and a professor of community and family medicine, admitted that he initially was disappointed that only 4 students chose family medicine in 2012, down from 7 in 2011. But he spoke highly of those future family physicians.

"Even though the number is small, I know the quality and caliber of the individuals who matched, and they will represent our specialty well," he said. One of those students is Dylan Werth, of Lee's Summit, Missouri. Werth will be joining Truman Medical Center-Lakewood Family Medicine Residency Program in Lee's Summit.

According to Werth, he knew midway through UMKC's 6-year medical school program that family medicine was for him. "I enjoy getting to know patients and developing long-standing relationships with them," said Werth. "I also like being able to diagnose problems and treat them without having to send patients to outside specialists."

Another student, Ruth Pitts, of Bolivar, Missouri, will join the Cox Family Medicine Residency in Springfield, Missouri. Pitts discovered her enthusiasm for family medicine in high school when she shadowed a local family physician in the summer leading up to and then throughout—her senior year.

"I love the continuity of care and that I can offer a wide range of services for patients," said Pitts. She's also learned that patients trust their family physicians and respect their treatment recommendations in a way that positively affects care and outcomes. "Patients feel like you have their best interests in mind," said Pitts, adding that she will enjoy the years of continuous learning that family medicine requires. Allison Klapetzky, of Okawville, Illinois, soon will be on her way to the St. Francis Hospital System Family Medicine Residency in Indianapolis.

"In the 8th grade, I knew I wanted to be a family doctor," said Klapetzky, president of the family medicine interest group at UMKC. "I embrace the wombto-tomb philosophy of family medicine."

> Sheri Porter AAFP News Now



From the American Board of Family Medicine

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# CHEATING: ITS IMPLICATIONS FOR ABFM EXAMINEES

Cheating is undesirable and unethical, but unfortunately, sometimes it does occur. Recent events at 2 ABMS specialty boards<sup>1,2</sup> have illustrated the fact that the medical certification industry is not immune from this phenomenon either. Although there are numerous moral and professional implications involved with cheating, we wish to address the implications of cheating from a psychometric perspective. Our intent is to highlight some of the less obvious ways in which all ABFM diplomates could possibly be impacted should its diplomates and candidates resort to cheating on our examinations.

So, what is cheating? Cizek<sup>3</sup> defines it as "any action that violates the rules for administering a test, any behavior that gives an examinee an unfair advantage over other examinees, or any action on the part of an examinee or test administrator that decreases the accuracy of the intended inferences arising from the examinee's test score or performance." The ABFM goes to great length to ensure a fair test for all examinees. When examinees register for ABFM exams, they make a promise to adhere to both the ethical and legal standards associated with the administration of the examination. This compact between the ABFM and the candidates minimizes the risk of a compromised examination score(s). Unfortunately, however, when members of either party fail to adhere to the agreed upon standards problems can arise.

## Cheating as a Threat to the Validity of Examination Scores

Validity is perhaps the most important aspect of any test.<sup>4</sup> The concept of validity refers to the extent to

which interpretations and inferences gleaned from a score are accurate. When cheating occurs, estimates of an examinee's performance are no longer accurate. Perhaps the most obvious example of cheating as a threat to validity occurs when an individual is unduly advantaged and receives a score that is higher than his or her true estimate. The inflated score would essentially be a misrepresentation of that individual's performance, thus yielding an inaccurate estimate of performance. More subtle ways in which cheating can affect validity exist as well.

The most overt threat to examination validity would be associated with the leakage of exam items. Most testing organizations, the ABFM included, possess item banks with a large pool of items readily available for appearance on an examination. Items often vary with regard to how many times they may be used; some items are only used once, whereas others may be used perpetually provided they remain valid from a content perspective and continue to function in a psychometrically sound manner. Some overlap of items across administrations almost always exists, although the amount of overlap varies considerably across testing organizations. In any instance, exam items that are leaked from the item bank could give those with access a significant advantage. Regardless of how the test is constructed, if a single item has been compromised it could result in some examinees receiving a score that misrepresents their actual estimates of performance. Of course, the more items that are leaked, the greater the threat to the validity of the examination

Because most high-stakes examinations are scored with some form of item response theory (IRT) methodology, the difficulty of the items plays an important role in discerning a measure of the examinee's performance. As such, cheaters have the ability to impact the accuracy of item calibrations by making items appear easier than they actually are. Although isolated incidents of cheating would have negligible effects on these calibrations, wide-scale cheating, on the other hand, would severely affect these calibrations. In fact, the more rampant the cheating, the greater the negative consequences for all other examinees, as they would in turn need to get more items correct in order to pass the exam. Thus, one could surmise that anyone who cheats on a high-stakes exam is not only selfishly influencing his or her own score, but doing so at the expense of others as well.

The notion of item difficulty calibrations becoming altered can lead to other adverse effects. For instance, exams are typically equated, or brought onto the same scale, by using a number of common items across the exams. These common items are referred to as item anchors. If the items used in the anchoring process