ily physicians' practices to make certain that our examination is relevant and accurately assesses the core competencies required of the contemporary practicing family physician.[2] A detailed description of the blueprint can be reviewed on the ABFM Web site by all examination candidates.

It is important to emphasize that the examination measures the minimum level of practice-based knowledge necessary to become certified or to recertify. Convincing evidence exists that the accurate assessment of this minimum level of knowledge matters. An excellent recent review of this subject by Holmboe substantiates the importance of a sufficient knowledge base to inform sound clinical judgment, make evidence-based decisions, and deal with uncertainty.[3] Earlier work by Brennan further provides evidence that certification examination results correlate with supervisor assessment of clinical skills and that recertification examination results correlate with the complexity and volume of patients seen by practicing physicians.[4]

With that having been said, let me acknowledge and agree with one of his major premises; namely, we recognize that assessment of clinical knowledge is but one of the important competencies that a board-certified family physician must possess. As a result, the ABFM has shifted to a new recertification paradigm, and family physicians that successfully certify or recertify now enter the Maintenance of Certification for Family Physicians (MC-FP) process. MC-FP is a continuous, ongoing process that embraces assessment of the six general ACGME/ABMS competencies that have been deemed essential in defining the competent physician.

Loxterkamp writes, "And really, who cares if we know the right answer but fail to deliver it and fail again to ask ourselves why not?" The ABFM does care. That is why so much has been invested with great effort into creating the MC-FP Performance in Practice Modules, designed to help physicians assess how well they deliver high-quality care so that they can deliver it consistently at the right time, every time, to their patients.

The ABFM is in the process of developing additional tools that will assess family physicians' professionalism, the ability to communicate effectively with patients, and the ability to treat patients safely. Beginning in 2013, the ABFM will use simulation technology in the certification and recertification examination for purposes of assessing the clinical knowledge of family physicians. I believe that this technology will allow the ABFM to more accurately assess how physicians gather, process, synthesize, and use information in their evaluation and management of patients. While not quite meeting Dr Loxterkamp's ideal solution of an "open access" examination, I believe that this technology will allow the ABFM to assess clinically important behaviors as accurately as is currently possible in the testing environment.

I appreciate the spirit in which Dr Loxterkamp penned his provocative article. I hope that he and your readers appreciate how diligently the ABFM is working to remain on the cutting edge of physician assessment to more accurately determine who deserves to be a board-certified family physician.

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To the Editor:

Dr Loxterkamp asks a number of serious and important questions in his article. As members of the test development staff of ABFM, we wish to address the following:

(1) "Does taking a Board exam makes us better clinicians?" No. It is not intended to do so. Measurement is intended to quantify the amount of the characteristic of interest, not to improve it. Exam questions are for measurement, not for education. From the perspective of the ABFM, the key question is, "Does a potential patient or provider have a useful piece of information if they know a physician passed a 6-hour knowledge examination in their specialty area and that he or she is ABFM certified?" The purpose of ABFM certification is to publicly ensure that a physician has adequate professional standing, a high level of knowledge, and an ongoing commitment to lifelong learning and performance improvement, so that the potential patient or provider can make a judgement whether to trust the knowledge of a particular physician.

(2) "Does the rank and file find it useful?" Based on their entry into it, at least 85% of family physicians appear to find this voluntary process useful. The intention of the ABFM is to make certification increasingly beneficial. For example, some pay-for-performance initiatives can be met by elements of the certification process, consistent with one of the suggestions made. By this metric, the overwhelming answer is "yes," family physicians find it useful. Additionally, one post-examination survey question is, "Do examination questions reflect the knowledge family physicians need every day in practice?" The responses have been a 3:1 ratio of positive to negative replies.

(3) "Is it a valid measure of the way we approach problems in clinical practice?" It is not especially valid for that measurement target, nor is it intended to be. The examination is about what one knows about family medicine, rather than how one would behave at work with multiple demands on time simultaneously pulling in several directions. The certification examination is not a "cognitive exam" in the sense of psychological measurement, in which the quality of cognitions, handling of stress, and mental status may all be measurement targets. These issues are crucial to patient care at the moment of service delivery. The point of confluence of "circumstance, temperament, and emotional reserve" can be assessed by professional observation, in the context of a nationwide training apparatus over the course of years, just as in residency.

(4) "If clinical performance is the real target, why not examine it instead of our skill in taking a cognitive exam?" Clinical performance is not currently the real target, simply because it does not exist as a single, coherent measurement construct. In contrast, medical knowledge is well defined and measured by the ABFM exam. It is incorrect to suppose that the certification exam can stand as a global measure of physician quality. It should instead be viewed as a measure of knowledge, which is one universally agreed upon and absolutely essential characteristic of a highly competent physician.

Dr Loxterkamp questions the utility of the ABFM examination of family medicine knowledge in its present state. However, the null hypothesis, that there is no relationship between knowing medicine and effective medical practice, is simply not tenable. This is why there is relatively little literature on the topic. Medical education consists largely of imparting a tremendous amount of information into the heads of physicians-to-be. Medical education takes for granted that knowing this information is important to effective practice.

Many of the points Dr Loxterkamp brings up clearly bear upon the quality of care provided. They are system-level problems, not individual-level problems. Certification of a physician does not guarantee one works in a well-organized, well-managed environment in which they can employ their knowledge effectively. Instead, Board certification follows the individual physician and offers strong testimony about the qualifications of that individual.

Dr Loxterkamp comments, "I know the argument: 'Even though it's a bad test, it's all we've got.'" We object. The exam is quite good at separating those who carry around and can quickly access important and relevant medical information from those who cannot. It is not a measure of test-taking ability. We have tested this hypothesis. Excellent test takers cannot outperform any one of the 70,000 certified family physicians, and they do not even come remotely close. Extensive data has shown that knowledge, training, study, and practice experience elevate test scores. Movement away from family medicine practice lowers test scores. This is irrefutable evidence that the exam measures medical knowledge, as intended.

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Author's Reply:

I am grateful to Drs Manahan, Puffer, Rinaldo, and O'Neill for thoughtfully reading and responding to my essay. The dialogue is not for us alone but for all those who have dedicated themselves to quality care and the survival of family medicine.

(1) The Maintenance of Certification (MOC) cognitive exam is a costly, time-consuming, and highly visible stamp of approval for family physicians. It should be held to high standards. The American Board of Family Medicine and I share that conviction.

(2) Measurement is never neutral. It draws attention to certain things and ignores others, and it changes the very thing being measured (see the Heisenburg Uncertainty Principle). Thus, we must be willing to examine both the tools and their impact and set them aside when they no longer serve our purposes.

(3) I disagree with Rinaldo and O'Neill that "medical education consists largely of imparting a tremendous amount of information into the heads of physicians-to-be." How students frame questions, access and apply knowledge, evaluate outcomes, and engage their patients are far more important, though less easily measured, qualities.

(4) I also disagree that "based on their entry into it, at least 85% of family physicians appear to find this voluntary process useful." Physicians maintain board certification because it is expected and/or required of them. Patients are largely unaware of our status. They are more concerned about how they are treated when they're sick. And increasingly, they are treated by physician assistants, nurse practitioners, and specialists because so few American medical graduates are going into family medicine. The "other" purpose of board certification (besides reassuring the public) was to prove the legitimacy of family medicine to a specialty-domintated medical system. This goal has not been realized.

(5) The purpose of medical education is to produce good doctors, not by our own standards but according to the public need. If we have forgotten the Hippocratic Oath to "enter every house only for the good of our patients," we are often reminded that our license to practice is state-issued. The patient's needs—discerned through careful listening—should direct every as-