Recognizing societal demands for improved patient safety, the task force that developed the standards has embraced stricter duty-hour limits and greater supervision for trainees in the first postgraduate year (PGY-1). The new standards reflect many of the recommendations made by the Institute of Medicine (IOM) in a 2008 report but differ from them on one critical issue — how graduate medical education (GME) programs can best prevent harmful medical errors committed by sleep-deprived residents. The IOM recommended that resident shifts longer than 16 hours include an uninterrupted 5-hour sleep period. The ACGME task force concluded that such a long sleep period was unworkable, instead recommending “strategic napping” during long shifts.

As the accrediting body for advanced training programs, the ACGME sets and enforces standards related to residents’ learning and working environments. It reviews and updates its standards periodically, taking into consideration the scientific literature; the views of consumer, medical, and patient-safety organizations; and related government activity. Though compliance with the standards is voluntary, non-adherence would jeopardize hospitals’ ability to sponsor GME programs and place at risk annual support from Medicare of about $100,000 per resident (a national total of $9.5 billion a year).

The ACGME issued preliminary duty-hour standards in June — updating those adopted in 2003 — and invited comments from interested parties. The largest proportion of the hundreds of comments it received focused on the limits for PGY-1 residents. Whereas the current standards are generally one size fits all (an 80-hour week on average, with the average calculated over a period of 4 weeks, with a maximum on-site duty period of 24 hours, plus 6 hours for transferring patients and learning), the new directives tailor duty hours to...
trainees’ level of experience and demonstrated competence.

Under the new standards, continuous duty hours for PGY-1 residents must not exceed 16 hours per shift or 80 hours per week, averaged over 4 weeks. More senior trainees may be scheduled for a maximum of 24 hours of continuous work in the teaching setting, with an additional 4 hours permitted for handing off patients to another practitioner or, in unusual circumstances, remaining with an acutely ill patient.

The majority of comments concerning the PGY-1 duty-hour limits were negative: some commentators asserted that 16 hours are insufficient for education; far fewer said this limit should be applied to all residents. Most major medical organizations supported the more restrictive PGY-1 standard. Given the diversity of opinion, the task force chose to reaffirm its initial decision, citing surveys showing that PGY-1 residents have longer work hours than other trainees, evidence that fatigue increases the frequency of errors committed by PGY-1 residents, and their belief that the clinical environment’s growing complexity requires direct supervision of new trainees.

Among the dissenters, the American College of Surgeons (ACS) expressed “very grave concerns” regarding the PGY-1 limits, predicting “a negative impact to patient safety and continuity of care unless there is a substantial increase in human resources to replace the residents.” The ACS argued that any reductions beyond an 80-hour workweek “would undoubtedly result in far-reaching negative consequences currently being experienced in European countries” and proposed that the ACGME establish specific competencies for residents to master before being granted the “right” to work for 24 consecutive hours. The task force responded that this approach should be considered in the next revision of duty-hour standards, after research determines its probable feasibility and efficacy.

Beyond establishing new duty-hour limits, the standards emphasize the importance of faculty supervision and teaching, improvement of the patient-handover process, and education of residents about ways of maintaining alertness while on duty. In recognition of the effect of outside activities on residents’ level of alertness, they include a ban on moonlighting by PGY-1 residents and a requirement that more senior trainees’ moonlighting hours be counted as part of the maximal work time in a given duty period.

Studies have not shown that duty-hour limits have affected the quality and safety of inpatient care either positively or negatively, according to the ACGME. Nevertheless, when a medical error involving a resident leads to a serious injury or death that is reported in the media, the public and policymakers are sensitized to the precarious balance that GME programs must maintain between patient safety and the need to train new doctors to become independent practitioners while providing them with adequate supervision. Respondents to a recent public opinion survey overwhelmingly opposed 30-hour shifts and generally believed that shortening shifts would help to avert medical errors. By contrast, attendees at a Duty Hours Congress convened by the ACGME in 2009 voiced considerable opposition to the IOM’s recommendations for extended sleep periods, and the American Medical Association adopted a policy opposing it.

As a private organization accrediting programs that derive substantial support from Medicare, the ACGME closely tracks developments that could expand government’s role in GME accreditation. In 2001, Public Citizen, a consumer-advocacy organization, and others petitioned the Occupational Safety and Health Administration (OSHA) to establish and enforce a federal work standard of a maximum of 80 hours per week for residents, with no averaging of hours over weeks — a request that the agency rejected. In 2003, partly to forestall federal regulations, the ACGME adopted a standard of 80 duty hours per week averaged over 4 weeks. The IOM concluded in 2008 that it would be most expeditious to implement its duty-hour recommendations through the ACGME, but that “the Centers for Medicare and Medicaid Services should assess [the] reliability of ACGME procedures and ... sponsor periodic independent reviews of ACGME’s duty hour monitoring.”

The ACGME paid particular attention to the IOM’s recommendations because the report, requested by members of Congress, reflects society’s concerns about sleep-deprived residents’ role in patient safety. The legislators who requested the research said their interest had been “recently heightened” by a study that “found medical errors resulting in adverse events, including death, due to sleep-deprived and over-extended medical residents and interns.”

In an interview, Dr. Thomas Nasca, the ACGME’s chief executive, acknowledged the important
role of the IOM report in “solidifying the ground on which GME programs will move forward to adjust duty hours, provide closer supervision to residents, and improve the quality of care by making it safer. But we also believe it is important that further study be conducted on the relationship between sleep and performance and that increasing attention be paid to safety as a systems issue.”

Clearly, the last word has not been spoken on balancing GME’s conflicting imperatives. On September 2, Public Citizen and others again petitioned OSHA to issue regulations limiting residents’ work hours to 16 per shift and 80 per week without averaging, arguing that “research has connected the typical resident work schedule to harm in four specific areas: motor vehicle accidents, mental health, pregnancy, and percutaneous injuries.”

A statement issued by David Michaels, assistant secretary of labor for occupational safety and health, suggested that OSHA may be more sympathetic to the petition now than it was in 2001, when it was under a Republican regime. Michaels wrote, “We are very concerned about medical residents working extremely long hours, and we know of evidence linking sleep deprivation with an increased risk of needle sticks, puncture wounds, lacerations, medical errors and motor vehicle accidents. We will review and consider the petition.”

The ACGME initially said its “enhanced standards” would take effect in July 2011, but it has come under pressure to delay the effective date until July 2012 because of the complexities of implementation. The council is considering this possibility — but recognizes that such a delay might not be well received by the public and could influence OSHA’s consideration of the petition.

The IOM recommendations have so far spurred no action in Congress, where residency issues were placed on a back burner during the health care reform debate. If Democrats retain control of the House, its Energy and Commerce Committee, whose leadership requested the IOM study, might take testimony on residency hours in the context of Medicare funding of GME. If Republicans take control of one or both congressional houses, they may reexamine the rationale for Medicare’s investment in GME as part of efforts to pare the federal deficit. Regardless of the election results or OSHA’s decision on the petition, residents’ duty issues will remain part of the ongoing private–public dialogue, given the interest of the populace, the concerns of policymakers, and emerging worries that too few doctors are being trained to treat the millions of people who will receive new health coverage under the Affordable Care Act.

Disclosure forms provided by the author are available with the full text of this article at NEJM.org.

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5. Public Citizen. Petition to reduce medical resident work hours. September 2, 2010. (http://www.citizen.org/hr1917.)

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