

Limiting work hours of medical residents could cost \$1.6 billion annually, study finds

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New recommendations to limit the work hours of medical residents could cost the nation's teaching hospitals about \$1.6 billion annually to hire substitute workers, according to a new report from the RAND Corporation and UCLA.

While society may benefit if such changes reduce [medical errors](#) as intended, limiting trainee workloads would create a substantial new expense for academic medical centers, according to the study published in the May 21 edition of the [New England Journal of Medicine](#).

"Adopting new restrictions on the work hours of physicians in training would impose a substantial new cost on the nation's 8,500 physician training programs," said lead author Dr. Teryl K. Nuckols, an internist at the David Geffen School of Medicine at UCLA and a researcher at RAND, a nonprofit research organization. "There is no obvious way to pay for these changes so that's one major issue that must be addressed."

In December, the Institute of Medicine released a report calling for revisions to medical residents' workloads to decrease the chances of fatigue-related medical errors and to enhance the learning environment. Recommendations include requiring prolonged shifts to include protected time for sleep, reducing to 16 hours the duration of time residents can work without protected time for sleep, reducing residents' workload, and increasing the number of days residents must have off.

Graduate medical education programs traditionally have required

residents to work long hours, often more than 100 hours per week. Such training programs generally run three to seven years following medical school.

The study from RAND Health and UCLA provides new details about the potential costs and clinical implications of the Institute of Medicine recommendations, expanding upon a cost analysis described in the original report.

Should the recommendations be adopted, researchers say teaching hospitals would need to make up for residents' shorter work hours by either hiring other providers such as physician assistants to do the work or by expanding the number of residency positions.

While adding residency slots could help ease physician shortages in some specialties, it also could lead to oversupply in others, according to the study. Researchers estimate that residency positions would need to grow by about 8 percent overall to meet staffing needs under the IOM recommendations.

"The trainees who are working more than the proposed limits would allow are not necessarily in the specialties where more physicians are needed," Nuckols said. "For example, pediatric residents work a lot of hours, but there is no evidence that there are too few pediatricians."

Researchers estimate that adopting the Institute of Medicine's recommendations would cost each major teaching hospital about \$3.2 million annually on average. That is higher than other proven quality improvement efforts for hospitals such as computerized physician order entry and medication bar-coding systems. But it would be less expensive than other proposals, such as requiring that there be one nurse for every four patients.

One study of shorter work shifts suggests that reducing resident work hours could cut serious medical errors by 25 percent in medical intensive care units. But few errors cause injury and the effects could be different in other clinical settings, according to the study. In addition, revising work rules could prompt other types of medical errors as the care of hospitalized patients is more-frequently handed from one provider to another.

Researchers say adopting the recommendations of the IOM report would be more expensive for teaching hospitals than a major revision of resident work hours adopted by training programs five years ago. Those rules say that residents should not work more than an average of 80 hours per week, among other limits.

"Residency programs already have picked much of the low-hanging fruit by reducing the non-educational duties placed on residents," Nuckols said. "Further changes will require that hospitals hire professionals with high levels of training, such as nurse practitioners and physicians, and that will be expensive."

Source: RAND Corporation

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