

White Paper: Training The Next Medical Workforce

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Overview	During a period of explosive growth in medical knowledge, physician residents need critical-thinking skills more than ever.
Client	The AHA's Center for Health Innovation, on behalf of Elsevier



How to Help Physicians-In-Training Develop Critical-Thinking Skills (copy excerpt)

" COVID-19 has disrupted health care delivery in profound ways, particularly for today's physician residents. They have been called upon to help treat rapid influxes of acutely ill patients. They're spending more time than their predecessors on documentation while learning the nuances of electronic health records. These and other demands also have impacted their available time for training.

At the same time, residents are overwhelmed by the sheer quantity of medical literature. With 7,500 randomized control trials and 11 systematic reviews¹ published daily, residents would

need to subscribe to 2,000 journals to stay current. Instead, millennial residents – the dominant cohort – increasingly turn to search engines, Wikipedia and podcasts for

information. A study indicated that up to 70% of medical students and physicians-in-training trust Wikipedia as a source of medical information.

All of these issues combined could contribute to the country’s growing rate of medical errors, health care leaders said in a recent Elsevier webinar. Indeed, it is estimated that more than 40,000 adult ICU patients die annually with the wrong diagnosis.

“In lieu of more standard resources, [I worry] that physicians-in-training are building a fund of knowledge the thickness of a slice of Swiss cheese – with as many holes in it,” said Todd Thomsen, an emergency medicine physician at Mount Auburn Hospital in Cambridge, Mass., and Boston’s Harvard Medical School.

Data over experience

Data and evidence already are eclipsing the role of empirical knowledge in clinical practice.

Residents must think critically and become accustomed to both analyzing and, where pertinent, applying new evolving information.

“We see physicians of tomorrow practicing more and more from the assimilation of new knowledge through critical-thinking skills, and less and less from their primary experience in residency training or their personal experience,” said Drew Furst, M.D., Vice President of Clinical Executives, Elsevier.

They will have to better integrate current, evidence- based knowledge into clinical decision-making.

For example, Mount Auburn Hospital leaders changed their approach to stroke care after a 2015 New England Journal of Medicine study presented cutting-edge information about how to treat stroke patients. Faculty had emergency medicine residents prepare and deliver lectures to paramedic training programs about the new care guidelines, which required the residents to internalize the medical literature.

“I witnessed first-hand how quickly medicine can change, and how practice patterns change,”

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Thomsen said.

