

Healthcare AI, Ambient clinical intelligence

Heading off the physician shortage: The role ambient clinical intelligence must play

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It's projected most states will face a shortage of primary care physicians within the next four years. Transformative new technologies like ambient clinical intelligence can—and must—help to mitigate those shortfalls and future-proof access to high quality care.

In its landmark [2016 study](#), the Health Resources and Services Administration estimated that, by 2025, 37 states wouldn't have sufficient physicians to meet demand for primary care. More recent projections show that, as a nation, we're still far from solving the problem; this summer, the Association of American Medical Colleges (AAMC) [projected](#) the United States could be short as many as 48,000 primary care physicians by 2034.

We know that the US has an aging population, with growing healthcare needs. We know that our primary care physicians are aging, too. The [AAMC](#) notes that more than 40% of our nation's active physicians (in all specialties) will be 65 or older within the next decade—and after the hardships of COVID-19, many in primary care may view retirement as an even more attractive prospect.

We must engage with this difficult reality, and ask: What can we do now, to prevent the shortages arriving over the horizon?

I believe technology can, and must, play a crucial role. And one genuinely transformative technology that's arrived at exactly the right moment is ambient clinical intelligence. Over the next few pivotal years, its impact should be threefold — helping improve access to care, reduce physician burnout, and attract a

whole new generation to this essential work.

Empowering physicians to see more patients

For every hour a physician spends with their patients, they spend [another two hours](#) documenting that care. Ambient clinical intelligence can [dramatically lighten this administrative burden](#). It listens unobtrusively to the physician's free-flowing conversation with their patient—whether they're talking in-person, or via telehealth—creates a clinical note, and automatically enters the relevant information into the EHR.

As you might expect, the time saving for the physician can be profound. [Our own studies](#), conducted across multiple medical specialties, put it at seven minutes per patient. This can give a physician the capacity to take on three to five additional appointments in any given day.

In this way, ambient clinical intelligence should help many primary care providers maintain patient throughput and access to care, even while demand grows, and the physician workforce shrinks. In addition to improving access to care, the time savings also has a direct impact on physician well-being helping to further tackle physician shortages at its roots.

Keeping our primary care physicians healthy and motivated

When primary care physicians spend hours documenting their patient encounters, it's often at the cost of their own, individual wellbeing.

[42% of the physicians](#) surveyed for Medscape's *National Physician Burnout & Suicide Report 2021* reported being burned out—a figure that rises to 46% and 47% respectively for those in internal and family medicine. The most common causes were “too many bureaucratic tasks” and “spending too many hours at work.” Burnout, of course, is a problem for physicians and their employers alike, especially with physicians in such short supply. (Other studies suggest that [the odds of physicians leaving an organization due to burnout is 2 to 1.](#))

By helping them to complete documentation much faster, ambient clinical intelligence can allow older physicians to stop working when they should, to be present with their families, and to enjoy a better work life balance. That new balance will help them to stay healthy, productive, and motivated to share their deep experience for many years to come. And what's more, it will help to attract the next generation to primary care.

Attracting the next generation of primary care physicians

How often do we hear physicians say, “I didn't go to medical school to enter data into an EHR”? People choose to work in primary care because they want to engage with—and improve—other people's lives.

[Targeted funding](#) for graduate medical education positions will help to bring young minds into the primary care workforce. But to effectively attract, inspire, and retain the physicians of tomorrow, providers will need to deliver the fulfilling, engaging career they have dreamed of—not days spent glued to a keyboard, navigating EHR fields, with their back to the person they're trying to help.

Here again, ambient clinical intelligence can make a real difference. Freed from the role of notetaker, physicians can give their undivided attention to the patient, parent, or caregiver in front of them. Even better, the conversation is captured in the moment—reducing the physician's cognitive load, helping to ensure no detail is overlooked or forgotten, and bolstering the quality of care. The result is a better experience for primary care physicians *and* for their patients.

The outcomes providers are already seeing

An integrated healthcare system that's already using ambient clinical intelligence surveyed its patients to better understand the technology's impact; [97% said it had made their physicians more focused, personable, and engaged](#). One family medicine specialist commented, “I know when I go home that my tasks are done. I can spend time with my family and not have the anxiety to come in early the next day to finish notes.”

University of Michigan Health West, which is [in the process of rolling out ambient clinical intelligence to](#)

every primary care provider in its community, is seeing similarly positive outcomes. Surveyed patients overwhelmingly agreed with the statements “My visit felt more like a personable conversation,” and “The provider seemed to be more focused on me during the visit.”

Ambient clinical intelligence: A key piece of the puzzle

Sometimes, a technological breakthrough arrives at the perfect time. AI-driven solutions like ambient clinical intelligence are ready to play a powerful part in addressing the projected shortage of primary care physicians and helping providers future-proof access to high quality care.

Tags: [Speech recognition](#), [Burnout](#), [Ambient clinical intelligence](#), [Dragon Ambient eXperience](#), [Electronic health record \(EHR\)](#)

More Information

Explore the technology

Find out more about ambient clinical intelligence, and how it's saving physicians time, while creating more personable, conversational primary care experiences.

[Learn more](#)



About Kenneth Harper

Kenneth Harper is the Vice President and General Manager of Nuance's Healthcare Virtual Assistants and Ambient Clinical Intelligence business. Kenn has been working in the conversational AI industry for 15+ years, helping to shape virtual assistant solutions across mobile phones, TV's, cars, wearables, robotics, and most recently healthcare systems. Kenneth leads Nuance's Healthcare Virtual Assistant business, which leverages an advanced suite of technologies combined with purpose-built hardware to streamline interactions with the EHR and creation of clinical documentation, allowing physicians to remain 100% focused on the patient without technology getting in the way. Kenn holds a B.S. in human factors engineering from Cornell University and a M.S. in human factors from Bentley University.



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