

Healthcare AI, Ambient clinical intelligence, Uncategorized

How University of Michigan Health-West improved clinician wellbeing

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Advisory Board conducted a study of the Nuance Dragon Ambient eXperience (DAX) at the University of Michigan Health-West (UMHW), which was sponsored by Nuance, a Microsoft company. The study revealed that not only did DAX decrease clinician burnout, but it also increased throughput and work Relative Value Units (wRVUs) and generated a significant return on investment.

The challenge

Healthcare is facing a mounting workforce crisis as administrative and cognitive burdens, physician burnout, and workforce shortages continue to rise.

Clinicians spend more time documenting care than delivering it, spending up to two hours on administrative tasks for each hour of care provided.¹ As the aging population grows, patients no longer present with one or two isolated issues. They have multiple interrelated problems, which require clinicians to remember complex details [that increase their cognitive burden](#). Clinicians simply don't have enough time in the day to provide and document care and are forced to disrupt their work-life balance by taking work home and completing it after hours.

These mounting pressures on clinicians have led to [higher rates of turnover and subsequent gaps](#) in care, which can have a negative impact on patient safety and the patient experience.

Through quarterly burnout surveys, University of Michigan Health-West (UMHW) leaders noticed that administrative burden and burnout were becoming more widespread among their clinicians. In post-

survey conversations, clinicians relayed that documentation and in-basket messaging were the primary drivers of burnout.

The approach

UMHW leaders knew that to improve clinician wellbeing and support a sustained and fulfilled workforce, they would need to address documentation burden, the chief complaint among their clinicians. As they sought a solution, they were intrigued by the promise of AI to address clinician satisfaction, work-life balance, and feelings of fulfillment, in addition to achieving a return on investment (ROI). The right solution would need to:

- Enhance the clinician experience by reducing administrative burden, cognitive load, and burnout
- Help clinicians better treat highly complex patients
- Improve clinician-patient relationships and patient care
- Reduce administrative costs through more efficient and effective documentation methods
- Increase revenue over time

Leadership at UMHW learned about [Nuance Dragon Ambient eXperience \(DAX\) at a conference](#) and selected it as their solution after confirming it met their requirements. [DAX is an AI-powered solution](#) that securely records patient-clinician conversations via a mobile application and automatically converts them into clinical documentation. The solution is available for ambulatory specialties, primary care, and urgent care in office and telehealth settings.

The result

UMHW measured the impact of DAX on its organization after using the solution for over a year. It conducted a study with 83 primary care clinicians that included both qualitative and quantitative research methodologies. The study revealed that clinicians who used DAX more than 60% of the time:

- Experienced less burnout, with lower rates of exhaustion and disengagement. The drop in burnout after using DAX is comparable to a clinician going from full-time work to part-time work.
- Saw an additional 12 patients per month on average and increased their wRVUs by 20 per month.
- Found that the revenue generated from the additional visits covered the cost of DAX with an additional 80% return on investment.

The impact of DAX on clinician wellbeing was substantial. It liberated their time and reduced cognitive load, allowing for more meaningful patient interactions. The detailed and structured notes generated by DAX not only improved patient care but also facilitated accurate billing. Furthermore, DAX strengthened patient relationships by allowing clinicians to be more present during visits.

UMHW achieved its goals, with improvements in clinician satisfaction, reduced burnout, and an impressive return on investment. UMHW's focus on clinician wellbeing as the primary goal paved the way for increased productivity, enhancing the overall quality of care while reaping financial benefits. DAX proved to be a game-changer, offering a glimpse into the future of healthcare where technology empowers clinicians and benefits both patients and healthcare organizations.

"We can't go at this with the mindset that providers can see more patients. They will be able to, but they just don't believe it before they use DAX. We must think in the way that we are improving the experience for both providers and patients. With this, the entire industry benefits. The soft ROIs are almost immediate, the hard ROI will come after the investment."

Dr. Lance Owens, CMIO University of Michigan Health-West

To learn more about this study and how DAX can benefit you, [download the report now](#).

Endnote

¹ Source: Sinsky, Christine; Colligan, Lacey; Li, Ling. Allocation of Physician Time in Ambulatory Practice: A Time and Motion Study in 4 Specialties. *Annals of Internal Medicine*, 6 Dec 2016.

Tags: [Burnout](#), [Dragon Ambient eXperience](#), [Customer success story](#), [Hey Epic!](#)



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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