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Healthcare AI moves from theoretical promise to tangible impact, bringing challenges to navigate

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The Buzz This Week

Incorporating artificial intelligence (AI) in healthcare delivery has moved from theoretical to reality as a growing number of applications are implemented in healthcare organizations. Recent initiatives by health systems such as Atrium Health and University of North Carolina (UNC) Health, as well as a landmark study on breast cancer screening, exemplify this transition and signal a paradigm shift in how healthcare can be delivered and how healthcare provider organizations can operate.

Atrium Health recently deployed an AI tool that automates clinical documentation via a voice-enabled platform. The initiative is already producing positive results. Atrium's primary care physicians report saving up to 40 minutes per day in documentation activities. In addition, a survey conducted among clinicians revealed a high level of satisfaction: 92% find the technology easy to use, 85% would be disappointed if they no longer had access to it, and 68% report that it has improved their experience in providing clinical care.

UNC Health recently began to utilize an AI platform that automates administrative tasks for front-line nurse managers, including patient rounding, schedule creation, and quality and patient safety checks. It also helps nurse managers better communicate with their staff. UNC implemented this technology in response to a 30% annual turnover rate among its nursing staff, driven in large part by the large number of daily administrative tasks that contribute to burnout.

By automating some of those tasks, nurses can reclaim some of their time, and spend time on more complex tasks that allow them to operate at the top of their license. According to UNC, the system saved \$5.4 million between 2021 and 2022 through improved nurse retention and reduced recruitment costs. UNC has also seen its nursing staff turnover rate decrease from 30% to 24%.

Beyond administrative and workload solutions—where it's widely adopted in revenue cycle management for tasks like claim adjudication and denial management—AI is also being used for clinical decision support. A comprehensive trial in Sweden that included more than 80,000 patients found that incorporating an AI-powered tool in breast cancer screening can almost halve the workload of radiologists without compromising accuracy.

Published in the *Lancet Oncology* journal, the trial compared AI-supported screening with traditional screening methods. The AI intervention not only produced a similar cancer detection rate but also reduced the screen-reading workload of radiologists by 44%. The study further reported that AI did not increase the rate of false positives, maintaining a 1.5% rate for the control and intervention groups.

Why It Matters

While the recent AI success stories underscore the transformative potential of the technology, the journey has only begun. Certain AI solutions are reducing the administrative burden for providers, improving efficiencies and lowering burnout rates. The radiological application is arguably the most prevalent AI-powered tool for clinical decision support. Healthcare organizations have been slower to pursue AI-powered tools in other more complex areas of direct patient care, partly because those applications are not as mature and clinical studies on their efficacy (and risks) are still few in number. In addition, concerns about data privacy, safety, and algorithmic bias that could inadvertently introduce disparities in healthcare are far from resolved.

For example, because AI tools function based on the data they are “trained” on, an unrepresentative dataset could inadvertently introduce bias and other types of errors into clinical decision-making—potentially exacerbating existing healthcare inequities. Combined with a general unfamiliarity with these types of AI solutions, many clinicians and administrators have a nascent level of trust in these tools, retaining hesitancy around implementing AI-powered tools into a broader set of direct patient care activities.

Patients also are not entirely ready to embrace AI solutions in medical care. In a [Pew Research Center study from earlier this year](#), 6 in 10 adults said they would be “uncomfortable if their own health care provider relied on artificial intelligence to do things like diagnose disease and recommend treatments.”

The key takeaway is that AI has moved from the realm of hypothetical solutions to a growing number of applications that have real impact in the healthcare industry. But this transition comes with its own set of challenges that require diligent oversight and ethical considerations. As healthcare systems across the nation look to AI as a solution that can automate administrative tasks and augment direct patient care, finding the balance between innovation and safety will be crucial. It will be important to proceed with a healthy level of caution, finding safe and effective tools as nuanced as the practice of medicine itself and the challenges healthcare organizations face.

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