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How talent and technology can help solve the nursing shortage



The nursing shortage is a global health emergency threatening patient access and outcomes

This crisis will worsen as more clinical workers retire and demand from an aging population rises. The industry may need to replace up to 13 million nurses globally in the coming years.¹ Without enough capacity to meet patient demand, today's nurses are experiencing emotional distress and burnout, pushing many to leave the profession.

Healthcare organizations are turning to quick fixes, including costly temporary staff, flexible work schedules and telemedicine. When these short-term solutions don't work, healthcare providers are forced to shut down units, reduce hours and eliminate clinical programs. These moves limit patient access to care.

The healthcare workforce has reached a breaking point. We must release the pressure on nurses, improve the nurse and patient experience and get people the care they deserve. With a reinvention strategy, we can continuously innovate to solve these issues today, and for the future.



Ready for reinvention

In our first paper about care delivery reinvention, we first highlighted the opportunity for healthcare leaders to be “Reinventors” that reimagine work models, empower their workforce with tools to increase capacity and use technology to free clinicians to do what they are trained to do.

Now, we turn the lens to illustrate with examples, how the reinvention capability can be continuously tapped by nurses and healthcare executives alike to maximize the collective power of people and technology to solve this critical challenge.

Throughout this paper, we bring to bear research findings from the Accenture Technology Vision 2023 among 4,777 C-level executives, including 300 from health providers, and the HIMSS State and Future of Healthcare; Clinician Findings from a survey of 309 clinicians in the US.

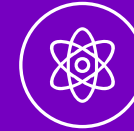


Reinventing care through technology

The nursing shortage requires a critical look into how care is delivered. One study found that only 21% of nurse time is spent on direct patient care.² Valuable nurse time is wasted on inefficient workflows, clinical documentation and administrative tasks. This is not the meaningful work they signed up to do. Most clinicians surveyed (92%) agree that too much time spent on administrative tasks is a major contributor to burnout.³

Understanding the potential of new technologies that are built on a digital core and applying them in novel ways can enable breakthrough innovation across clinical tasks. Time-saving technologies, such as ambient listening and generative AI, can reduce inefficiencies and improve nursing work. Research shows that 30% of administrative tasks for nurses can be automated or reassigned.⁴

A strong digital core is fundamental to the strategic needs of a healthcare enterprise. Amplifying the role of technology in reinvention means shifting from a technology landscape of static, standalone parts to interoperable pieces that leverage cloud, data and AI.



AI-powered supply-demand matching

Rather than clinical staff rushing to keep up with an overbooked operating room (OR) schedule, they are turning to AI. A large healthcare provider is able to do 7% more surgical cases despite having to close 20% of its ORs at times thanks to AI-powered solutions integrated with electronic health records (EHRs) that predict OR availability, automate operating room scheduling requests and use machine learning models to predict staffing needs.



Digital and AI solutions: Nurses need them, patients want them

Nurses are open to using digital solutions to enhance their work and improve care delivery. Most clinicians (93%) agree that applying automation to remedy time-intensive documentation processes will be beneficial.⁵ [Automating strategically doesn't just minimize tasks and boost productivity, it can be a springboard to more meaningful work that taps into nurses' most valuable skills.](#)

More than half (52%) of clinicians we surveyed believe that AI can improve diagnosis, while 32% think it can enhance procedural accuracy, and 31% noted that it can increase their time with patients.⁶

Healthcare executives also feel AI models enable better customer experiences (61%), faster decision-making (55%) and enhanced employee capabilities (46%).⁷

Our research also shows that patients and caregivers are interested in digital health tools. This reveals an opportunity to reinvent the tasks of nurses, shifting them to patients through self-service and collaborative solutions.

What's getting in the way of implementing these tools and accelerating reinvention?

Although nurses and patients are open to digital and AI solutions, technological, experiential and financial barriers prevent or slow adoption.

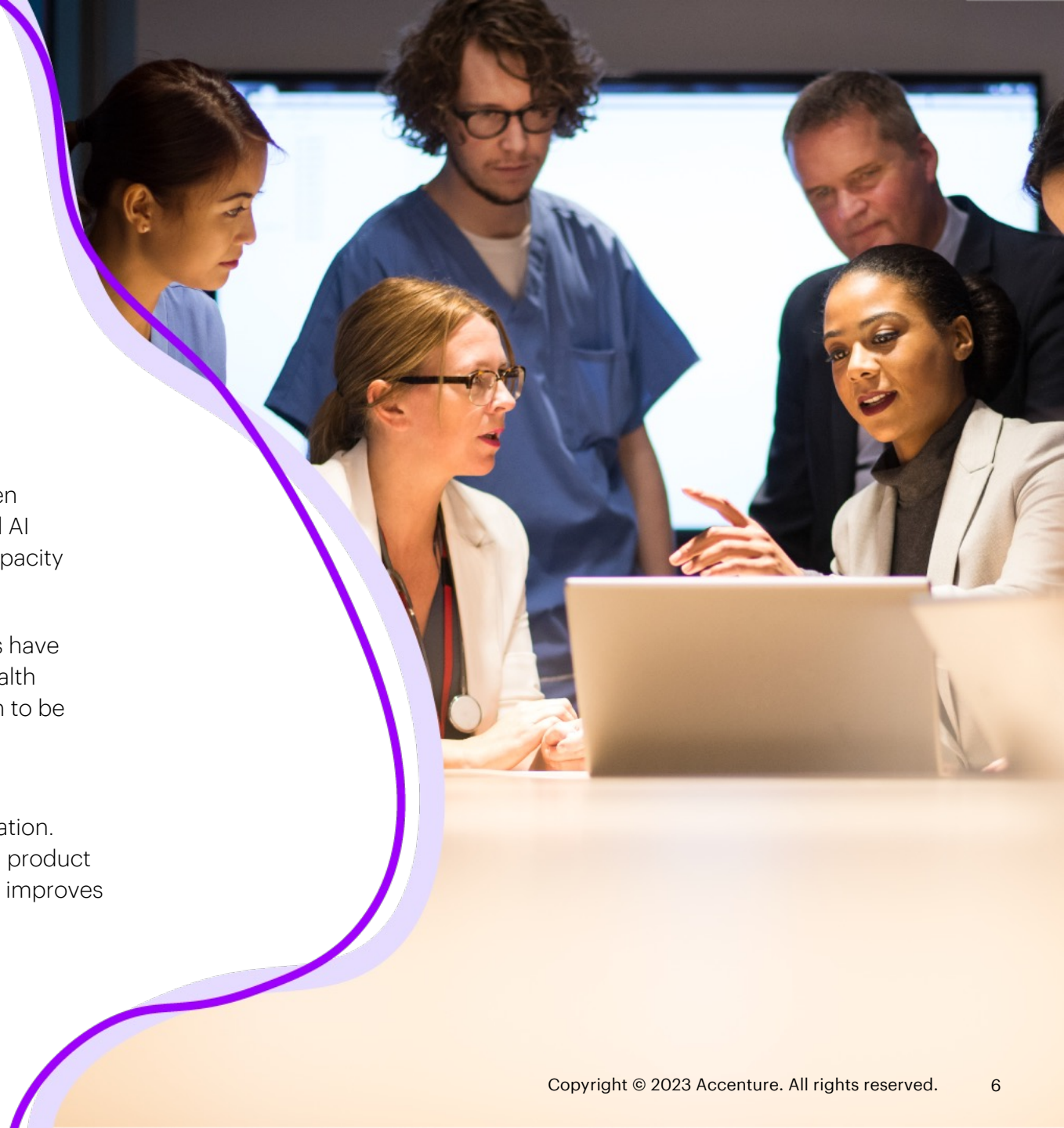


Technology barriers

Our research found 61% of clinicians cite lack of interoperability between different IT systems as a key barrier to digital tool adoption.⁸ Digital and AI solutions that create more technology and data silos exacerbate the capacity problem by creating duplicative administrative and clinical tasks.

Nurses need trusted information sharing, but 41% of surveyed clinicians have concerns about the security of patient data when it comes to digital health tools.⁹ Additionally, 38% of clinicians found security and data protection to be the most important factors when recommending digital health tools to patients.¹⁰

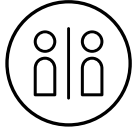
These barriers are often rooted in technology selection and implementation. Healthcare organizations that include clinicians in vendor selection and product design are more likely to choose a solution that meets clinical priorities, improves daily work and reduces frustration.





Virtual nursing assistants

Nurses complete numerous tasks during a 12-hour shift. AI-enabled robots can relieve some of this burden. They help patients with their daily routines, remind them to take medications and help answer medical questions.



Experience barriers

Although nurses are generally inclined to use digital and AI tools, healthcare organizations should not take their adoption for granted. As found in our latest Accenture Technology Vision 2023 survey, healthcare executives see stakeholder pushback as a top implementation risk.

In our experience, healthcare organizations can expect higher adoption if technology fits into workflows and gives nurses time back to do the work they enjoy, such as direct patient care.

Our research revealed that 39% of clinicians didn't believe digital health tools are effectively integrated into their workflows.¹¹

Healthcare organizations should find technology solutions that replace routine administrative tasks. These solutions should be intuitive, fit into daily workflows and not require frequent training that pulls nurses away from their busy schedules.



Financial barriers

Healthcare organizations can invest in technology and new ways of working that improve nursing work and reduce the financial strain the shortage has put on operations. However, this financial strain prevents them from making the investments they need. Clinicians recognize this problem and 60% say that a high up-front investment is a barrier for their organizations in the adoption of digital health tools.¹²

The risks of inaction and the costs of continuing to operate as usual show why these investments are so critical today. It is not sustainable to endure the burden of higher labor expenses from hiring temporary staff and paying higher salaries/retention bonuses to existing staff. And when healthcare providers are forced to reduce or cut clinical programs and services due to the nursing shortage, they lose revenue.

Organizations must look for ways to reinvent processes and work more efficiently to unlock funds that can then be invested in technologies to help solve the nursing shortage. Making strategic investments will help drive growth and lay the foundation for ongoing reinvention and continuous improvement that supports the bottom line.



Inpatient monitoring with AI

Technology can prevent overburdened clinical staff from having to check on patients around the clock. A large healthcare provider has set up a virtual command center to support bedside teams by using advanced computer vision and AI technology to continuously monitor patients throughout their hospital stay.



Igniting continuous reinvention to solve the nursing shortage

While healthcare organizations cannot solve the entire nursing shortage problem at once, Accenture has identified four critical success factors to help accelerate reinvention:



1 | Adopt a strong, modern digital core

Health systems should first establish a strong technology core (data integration, increasing interoperability, ensuring information security and integrating clinical workflows) on which to build digital and AI solutions.

An AI-powered, cloud-based digital core is the foundation for reinvention. Healthcare organizations can first shift from a technology landscape of static, standalone parts to interoperable pieces that are intentionally integrated and leverage the power of cloud, data and AI.

To account for financial barriers, health systems should sequence investments to unlock value quickly now and over time. For instance, investing in software as a service capabilities to lower the upfront cost of cloud-based technologies. Some or all this value could be invested in additional capabilities. This is when input from those using the solutions is critical to informing the level of disruption and impact on workflow experienced as a result of the technology implementation.

Technology + talent improves nurse experiences

Accenture delivered data-driven scheduling tools, increased automation and standardized scheduling processes to improve the workforce experience for 18,000+ nursing and support services staff at one of the largest health systems in the US.

We established trust early on through the early engagement of leaders at all levels to ensure alignment and buy-in, helping to clearly communicate value, expectations and milestones. Overtime costs were reduced and patient experience improved.



2 | **Involve nurses in care reinvention from the start**

Successfully introducing new technology into healthcare settings requires strong partnerships with nurses to drive adoption and deliver value. Those who will be using the technology in their daily work should be involved from the onset as the people impact is central to reinvention. Early on, identify the right clinical stakeholders whom the solution will impact: nurses, physicians or both. Then intentionally build relationships between these clinical stakeholders and IT.

For example, involve clinician stakeholders in the pre-sales process for technology purchases. After selecting the technology, they could advise on how it can be integrated into workflows to best amplify the power of people and technology. In some cases, this may require changing the work of the person whose tasks have been shifted to increase productivity and maximize their unique skill set.

Buy-in and commitment from nurses are critical to the adoption of new technology solutions. Clinicians will resist implementation if they feel forced to make changes or if the solution does not address their challenges. Help stakeholders to understand how the technology can support the way they interact with patients. Strive to understand clinician motivations and how technology enables those motivations. Establish a continual feedback loop and open communication so that nurses feel that they have a place to voice concerns over what is not working. Heed feedback and if necessary, remodel work so that technology becomes part of the workforce, not just a tool.

Virtual nursing program to improve healthcare access

Accenture designed a virtual nursing program that reduced the tasks of floor/unit nurses while enabling virtual and remote nurses to participate in huddles across multiple units and rapidly respond to situations on the floor.

Nurses collaborated closely with Accenture on the program's design, which considered clinical processes. The program led to 30-38% of nursing tasks being reassigned, allowing nurses to operate at the “top of licensure” and focus on patients.



3 | Use data to inform investment decisions

In addition to nurse insights, use operational and population health data to find solutions that are affordable, impactful and will save time for nurses.

Healthcare organizations use data insights to inform other areas, such as process improvements, market opportunities and organizational model changes, so why not use analytics to find what solutions will transform clinical work? For instance, a large children's hospital in the US uses a predictive analytics strategy known as digital twin simulations—which are digital representations of real-world systems and processes—to test new ideas for streamlining hospital operations in a risk-free environment.¹⁴

[Using AI-enabled applications and platforms to generate insights](#) can help to enhance operational efficiency, improve accuracy and decision making, streamline processes and empower workers by changing how work is done.



Automating clinical notes documentation

Primary care teams using AI-powered, voice-enabled solution that automatically document clinician-patient conversations for at least 60% of their patient visits can see about nine more patients per month than those without.



4 | Revolutionize operating models

Unfortunately, deploying new digital core to increase nursing capacity isn't straightforward. Accountability and ownership for choosing and implementing technology doesn't usually sit squarely with one or even two leaders in a medium or large healthcare organization. Making the kinds of changes we need in healthcare today requires boundaryless collaboration to enable successful execution across the enterprise. Reinventors strengthen connections across their organizations.

To do this, every healthcare organization must clearly identify who owns the process for pursuing and adopting solutions to help address the nursing shortage. It will be important to consider the operating model and break down organizational silos. Responsibility will need to extend across multiple stakeholders in various departments to unlock the full value of reinvented processes and new technologies. Clear responsibilities and coordination across several C-suite stakeholders will be essential to drive reinvention.





Robotic nursing support

With the help of technology, nurses don't have to get their own supplies amid a busy shift. One hospital is using robots to deliver supplies, including medicine and lab samples to the floor, so nurses and other colleagues can focus on patient care.

People-first, data-driven, pragmatic technology deployment

The nursing shortage problem did not appear overnight, nor will its solution. Technology offers tremendous potential to solve many issues burdening the workforce. However, for adoption to be successful, a strong digital core must be in place, nurses must be involved in every step of the process, data must inform decisions, process ownership must be clear, and change should happen at a pace that allows nurses to do their most important work: deliver the access, experience and outcomes that patients deserve.

Accenture is working with leaders across the healthcare ecosystem globally to address the nursing shortage through human ingenuity and technology solutions such as generative AI, automation, analytics and more. Please contact our authors to learn how your organization can begin to tackle this urgent issue.



Authors



Kaveh Safavi

Senior Managing Director – Consulting,
Global Health
kaveh.t.safavi@accenture.com



Tejash Shah

Managing Director – Health
tej.shah@accenture.com



Shelley Simkins

Management Consulting Senior
Manager
shelley.s.simkins@accenture.com



Ashish Goel

Accenture Europe Health Lead
ashish.b.goel@accenture.com



Travis Grant

Managing Director, Health ANZ
travis.h.grant@accenture.com

Contributors

Ana Matan

Management Consulting Manager
ana.m.matan@accenture.com

Daniel Owczarski

Thought Leadership Research Senior Principal
daniel.owczarski@accenture.com

Bracken Flynn

Strategy Senior Manager
bracken.flynn@accenture.com

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