ISTOCK

WINNING AT
THE SPEED OF CHANGE

A.I. at the Bedside

OutcomesAI's Chief Clinical Officer **Sarah Bell** on reshaping nursing care via end-to-end AI, reducing burnout, and building workforce sustainability in a strained healthcare system.

By Ryan Jones

What happens when the glue holding together the global healthcare apparatus decides it's had enough? Nurses are the backbone of the system, yet a 2024 study by the National Council of State Boards of Nursing found that as many as 40% of nurses in the U.S. alone are eyeing the exit. Globally, that number balloons to 45%, says BMC Nursing. Retirements, post-COVID distress, and a relentless grind have created a workforce on the edge—and a system that demands more while offering less. For hospitals, the math doesn't work. For patients, the stakes are life and death.

Sarah Bell refuses to accept that as the future. After 20 years in scrubs—including 18 at the Mayo Clinic—she has seen the collapse of old models up close. Now, as Chief Clinical Officer at OutcomesAI, she is rewriting the playbook. Her mission: use end-to-end artificial intelligence to give nurses back what burnout has stolen—the time, focus, and human connection that define real care.

A New Model for Care
OutcomesAI's Glia® is an ensemble of Large Language Models (LLMs) and Large Multi-Modal Models (LMMs) for healthcare. Unlike singular data type models, OutcomesAI is focused on building a multi-modal foundation model (using text, audio, images, sensor signals) for healthcare applications—ensuring safety and clinical performance by pre-training on trusted clinical data and fine-tuning using human feedback.

***IQ*: Tell us about your background and why this issue has become so central to your work.**

Ms. Bell: I've been a nurse for 20 years, with the first 18 spent at the Mayo Clinic. My passion for virtual care began in 2013 when we opened our Electronic Intensive Care Unit (eICU), where I witnessed firsthand how deploying new care models could transform practices, support teams, and drive meaningful change management.

Over the past two years, I've focused on designing and deploying virtual care solutions, and now serve as Chief Clinical Officer at OutcomesAI. In this role, I am building end-to-end AI for nursing care teams, working to make an impact on the troubling statistic of nurses rapidly leaving the bedside. Burnout is prevalent, it's strong, and it's widespread—and I believe our profession urgently needs support. I feel both blessed and energized to be in a position where I can help build solutions that positively impact my colleagues and, ultimately, the future of nursing.

***IQ*: How has the nursing profession evolved over the past two decades, and how do you see AI playing a role in addressing today's challenges?**

Ms. Bell: When I began my career, there was no shortage of nurses. In every setting—whether an ambulatory clinic or a hospital unit—you had a mix of very experienced nurses who had been there for decades and new nurses who were well supported by mentorship. The result was strong cohesion, manageable stress, and enough time and resources to care for patients well. That brought real joy to the workforce.

By the 2010s, the landscape shifted. Baby boomers began retiring, and then COVID supercharged the shortage. The unexpected wave of burnout and fatigue led to an exodus from the profession, creating an untenable, exhausted workforce across nearly every care setting.

I have family members who are nurses, and within their first year on the job many say, "I'm not sure I want to be a nurse anymore." The job has always been challenging, but the combination of chronic short staffing, increasingly complex patients, and overfilled hospitals has created a level of moral distress that feels unsustainable.

At the same time, nursing remains an incredibly resilient profession, and we've seen the rise of nurse innovators. There are more of us now in leadership positions, helping lead the design and future of technology and AI in ways that are built around the realities of nursing care. Tech and AI should work for the person. We shouldn't be making people work for it. Virtual care was new to us just a decade ago, yet, today it is everywhere, with nurses often at the forefront. That same mentality—seeing a problem and fixing it—will carry us into the AI era. If we continue putting nurses in positions to succeed and lead, AI can be a critical part of reshaping and ultimately strengthening the healthcare system.

IMAGE COURTESY OF OUTCOMES AI

"We need to shift the conversation from 'AI will replace nurses' to 'How can AI help nurses and care-teams deliver safer, more efficient care?' **That distinction is essential."**

—Sarah Bell
Chief Clinical Officer at OutcomesAI

***IQ*: What do you say to nurses or healthcare leaders fearful of AI replacing their jobs?**

Ms. Bell: That's been a hot question: will AI replace nurses? The answer is no—it can't. Technology and AI are here to serve people, not replace them. Certainly, there are tasks I have taken on as a nurse that I will no longer need to do because AI can handle them, but always under my supervision as a licensed nurse.

It's also critical to have nurses at the table when these tools are developed so that AI is created thoughtfully and designed to support nurses in an efficient, end-to-end way. Right now, there are many point solutions that address only one part of the workflow: some might write a note, others may act as a voice to call patients, or help with certain documentation. But when we design solutions that support the entire workflow, that's when you create real relief, take a true burden off care-teams, and help sustain the workforce moving forward while keeping patients flowing in a meaningful way.

We need to shift the conversation from "AI will replace nurses" to "How can AI help nurses and care-teams deliver safer, more efficient care?" That distinction is essential.

***IQ*: Can you share examples of how AI makes that possible in practice?**

Ms. Bell: Absolutely. For perspective, when electronic health records (EHR) came into use in the early 2000s, they put a computer directly between the nurse, the physician, and the patient.You can see it today—whether it's a nurse, physician, or advanced practice provider, so much of the interaction is spent looking at a screen, documenting in the EHR, while only partially engaging with the patient.

Yet, healthcare is *human*. What AI makes possible is restoring that human connection—the ability for nurses to focus fully on caring for the person in front of them. That's why many of us entered the profession, and what gives us joy in the work.

For example, nurses often arrive early and spend 20 to 30 minutes preparing for their shift— reviewing charts, reading notes, gathering information. AI can pull that data from the EHR and deliver it within seconds. It eliminates the prep burden, ensures that the information is presented in the correct sequence, and gives nurses confidence they're not missing critical details.

During patient care, AI can listen to the conversation, record and transcribe it, and tee up documentation. Instead of staring at a computer screen and clicking through flowsheets, the nurse is present with the patient. AI handles the note taking, with the nurse reviewing and signing off at the end.

And when issues arise in the moment—whether a patient problem or a clinical decision—AI can surface guidelines and protocols in real time. That reduces the time spent searching, ensures accuracy, and helps nurses deliver timely, appropriate care.

Often, our assessments draw heavily on experience. AI can serve as that added layer of expertise, supporting us in real time. At OutcomesAI, we've also developed patient navigators—AI voice agents that nurses can deploy to call patients, gather information, and return it directly to the care team. This empowers nurses to work at the top of their license and scope.

Instead of being limited to "the doer," the nurse now has tools to extend their reach and keep patient care moving in ways only humans can.

***IQ*: You've painted a picture of what the hospital of the future could look like with end-to-end AI solutions. In your work at OutcomesAI over the past two years, have you encountered resistance or hesitation to this kind of change?**

Ms. Bell: It is a big change, and one of the most important lessons is that AI must be embedded directly into the nurse's workflow. Too often in virtual care, new platforms or systems are simply added on top of the EHR. That only shifts the nurse's focus from one screen to another and does not create an integrated, usable workflow.

What we are doing instead is building tools within the EHR itself, so that they are part of the nurse's day-to-day. That makes the technology immediately usable, which is essential. Nurses don't have the time to learn an entirely new system. What they need is something intuitive, easy to use, and able to provide immediate relief. The other key is effectiveness. AI solutions cannot require months of use before showing value.

There must be immediate ROI—something tangible that helps the nurse right away. That is why having multiple agents capable of supporting different aspects of the workflow is so important.

Healthcare is inherently multi-modal—voice, video, text, and images—and AI must be able to support across all those modalities. Nurses need assistance not just with one task, but across the full, end-to-end workflow.

The response so far has been excitement. People are amazed when they see a voice agent call a patient, interact naturally within the guardrails we set, follow a checklist, and then return a note directly into the EHR—deploying a human nurse only when needed. They are equally excited by agents that can understand the EHR. Instead of spending ten minutes sifting through notes, orders, medications, labs, and flowsheets, a nurse can simply ask for a patient summary and have it delivered in seconds. Of course, excitement is just the first step. Successful adoption requires co-development with the people actually doing the work. Companies in this space must listen, adapt, and remain flexible.

The good news is that AI itself offers incredible flexibility, which makes this possible. Where we are today is a mix of excitement and urgency: "Can I have it now?" is a question we hear often. Proper integration is critical for longterm adoption, but the momentum is real. I truly believe this is just the beginning. Within the next five years, I expect AI to be embedded across healthcare in the same way virtual care is today and when that happens, we will see a very different, and much stronger, nursing workforce.

46%

Percentage of US healthcare organizations are in the initial production implementation of generative AI. Globally, 71% of healthcare clinicians in China, 56% in APAC overall, and 34% in the U.K. report using AI tools at work.

***IQ*: What kind of results are you seeing so far?**

Ms. Bell: The results have been very encouraging. In our clinical testing, nurses using AI tools are saving up to 60% of the time they normally spend preparing for a shift. What used to take 20 to 30 minutes—reading through charts, piecing together information, making sure nothing was missed—can now be completed in seconds. That time goes back into patient care or even into the nurse's own well-being, both of which are critically needed.

Frontline nurses also describe the technology as creating a new sense of safety and support. For those who are newer to the profession, AI can serve as an experienced partner—helping validate decisions, surface guidelines, and ensure nothing is overlooked. For seasoned nurses, it provides confidence that the details are covered, allowing them to focus more on the patient.

What excites me is that nurses see AI not as a threat but as a reliable ally. They feel more secure knowing that they have an intelligent system working alongside them, catching details in real time and reducing the constant mental load. That sense of confidence and relief will be critical as we move forward.

IMAGE COURTESY OF OUTCOMES AI

***IQ*: Lastly, with nursing at a crossroads, what will it take to catalyze a new future for the profession—and to transform the model of healthcare delivery itself?**

Ms. Bell: That's a great question, and it speaks to the beauty of nursing: we have the ability to reinvent ourselves again and again, always in service of patients and people. And I believe that right now, we are at the very beginning of another reinvention—redefining what it means to be a nurse.

For that reinvention to succeed, nurses must have a seat at the table. We need nurses in leadership positions, helping to design and shape the tools and solutions that will support our workforce and create sustainability for the profession. Without that involvement, technology risks being developed in ways that don't meet the real needs of the people using it—a mistake healthcare has made too often in the past.

My message to health systems and vendors is this: ask yourself, Who are the nurses informing your solutions? Make sure they are part of the process. Listen to them, and then move forward with what they recommend.

Transformation is never easy, but if we engage, collaborate, and adapt, we can shape a future where nurses are not only sustained but truly empowered. **IQ**

Chief AI Ally
From Mayo Clinic nurse to emerging tech trailblazer, Sarah Bell is transforming burnout into breakthrough for the global nursing workforce. Her work aims to rewrite the future of nursing to ensure caregivers regain the joy and human connection that define true care.