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GLOBAL HEALTH CONFERENCE
& EXHIBITION

Reflections From the Frontlines of Health Innovation: Nursing Informatics

A Conversation with HIMSS25 Speakers

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INTRODUCTION

Where nursing expertise meets digital transformation, equity, and resilience.

At a time when hospitals are racing to adopt AI, scale virtual care, and recover from unprecedented workforce strain, the professionals who understand both patient care and information systems are the ones guiding that transformation in real time.

Nurses trained in informatics are designing digital tools that actually work in clinical settings. They're building virtual nursing models that extend reach without compromising care. They're embedding ethical frameworks into AI adoption - and insisting that innovation never comes at the cost of compassion or safety.

At the HIMSS25 Global Health Conference & Exhibition, the nursing informatics community didn't just show up. They led. The speakers featured here are driving national change across crisis response, youth mental health, interdisciplinary virtual care, and beyond. Their work is united by a deep commitment to making healthcare systems more responsive, equitable, and human.

The message is clear: nursing informatics is defining the future of care.

78,000+

full-time RN positions are projected to remain unfilled in the U.S. by 2025—demanding scalable, tech-enabled solutions led by nurses.

(Source: HRSA Health Workforce)

REAL-WORLD EXAMPLES
of Nursing Informatics in Action

What's driving real change? Look toward the people doing the work.

Innovation in nursing informatics isn't driven by theory. It's built on the realities of implementation. The speakers featured here lead efforts to integrate technology across clinical settings, design virtual care models, and build AI-driven solutions with ethical oversight and measurable impact. Their programs are not abstract pilots - they serve real patients, in real-time, across complex health systems.

What real-world example or experience inspired your session(s) on nursing informatics?

Edwina Bhaskaran, MHA, MSN, RN: Supporting my elderly parents in navigating their healthcare journey has profoundly shaped my perspective in understanding how consumerism is shaping healthcare technology. My parents often struggled to have meaningful interactions with their providers due to missing critical elements of their medical histories, lab results, and treatment plans from various healthcare providers. This lack of accessibility hindered their ability to make informed decisions about their care. Empowering patients and their families to be active participants in their care requires transparent and interoperable data systems. When my parents had access to their complete health records, they could better understand their conditions, ask informed questions, and make decisions aligned with their preferences and values. Providing education and support to patients, especially the elderly, is essential. This includes training on how to use digital health tools and understand their health information. Empowered patients are more likely to engage in their care and adhere to treatment plans.

Mark Sugrue, MSN, RN, NIBC, FHIMSS: Despite a large investment in technology, healthcare errors continue to occur at an alarming rate, resulting in patient harm and even death. Additionally, the healthcare workforce, of which nursing is the largest segment, has been challenged to meet the needs of the patients we serve.

Sigal Shafran Tikva, CCRN, MPH, MHA, PhD: While AI is rightly viewed with caution - especially in healthcare - the crisis following October 7th revealed its life-saving potential. In Israel, we used AI-powered dashboards to identify bodies, locate kidnapped individuals, and coordinate efforts across hospitals, families, and emergency systems. It wasn't theoretical. It was survival. That experience inspired this session, showing how innovation and informatics, when guided by purpose and urgency, can save lives.

Murielle Beene, DNP, MBA, MPH, MS, PMP, RN, NIBC, FAMIA: My session was inspired by my current work in the development of innovative care models leveraging virtual care platforms. I truly believe this health care modality is the future of health care. Beginning with Nursing and expanding to other professions and care environments.

Nursing informatics roles are projected to **GROW 11%** between 2023 and 2033 —faster than the average for all occupations.

(Source: Bureau of Labor Statistics)

Lessons You Can Apply Now:
KEY TAKEAWAYS FROM HIMSS25

Advancing healthcare isn't just about innovation. It's about execution.

At HIMSS25, speakers reinforced that success in nursing informatics depends on how well clinical knowledge is embedded into design, implementation, and outcomes measurement. These reflections spotlight how informatics leaders are driving measurable, ethical, and people-centered transformation.

Edwina Bhaskaran, MHA, MSN, RN: Nursing informatics combines the art and science of clinical care and how best to incorporate technology in any form to meet the needs of healthcare delivery. As internal and external forces of change continue to evolve the digital ecosystem of healthcare delivery, nursing informatics experiences in healthcare technology implementation of the past will be needed to accelerate the rapid advancements of today and tomorrow.

> *"When nursing informatics leads in technology, we don't lose the soul of caregiving—we strengthen it."*
> *– Sigal Shafran Tikva*

Mark Sugrue, MSN, RN, NIBC, FHIMSS: Nursing Informatics is a specialty practice. Like any other practice within the profession of nursing, there is unique knowledge and skill that is required to function as nurses who happen to specialize in informatics.

Sigal Shafran Tikva, CCRN, MPH, MHA, PhD: Nursing informatics is where data meets compassion. It's not about replacing nurses. It's about empowering them to deliver smarter, safer, more human care. When nursing informatics leads in technology, we don't lose the soul of caregiving—we strengthen it.

Murielle Beene, DNP, MBA, MPH, MS, PMP, RN, NIBC, FAMIA: Nursing Informatics is a critical aspect of operations. These professionals are the bridge between operations and technology. In addition, we are essential to understanding the true return of investment for health information technology.

As of 2021, **96%** of non-federal U.S. hospitals had adopted EHR systems - solidifying informatics as essential to care delivery.

(Source: Health IT)

CHARTING THE NEXT CHAPTER
for Nursing Informatics

The future of informatics is collaborative, data-driven, and human-centered.

Looking ahead, nursing informatics will shape how technology is integrated into clinical environments, not as a disruptor, but as a partner to care. At HIMSS25, leaders described a future where informatics goes beyond workflow analysis to serve as a driver of systemwide strategy, safety, and cultural change.

What do you see for the future of nursing informatics?

Edwina Bhaskaran, MHA, MSN, RN: Nursing informatics stands at the critical intersection of technology, process, and people. Informatics teams excel at their understanding of how healthcare technology should be applied and how best it can be adopted. This includes success criteria, opportunities, and challenges. As the industry is at a key inflection point regarding the use of Artificial Intelligence, NI professionals will continue to shape and lead how these technologies are incorporated into clinical practice. Informatics understands workflow as well as the influence of culture in adoption and data structures to significantly contribute to this evolution.

Mark Sugrue, MSN, RN, NIBC, FHIMSS: The future for nursing informatics is extremely bright. Nursing informatics professionals are at the forefront of bringing digital health solutions, artificial intelligence, and machine learning capabilities right into the care delivery environment. The nursing informatics scope of practice includes the foundational elements of data, information, knowledge, and wisdom that will ensure the safe, effective, equitable, evidence-based, and timely application of health information technology.

Sigal Shafran Tikva, CCRN, MPH, MHA, PhD: The future of nursing informatics is not human or machine - it's a partnership. Nurses will work side by side with AI-powered assistants and robotics, forming hybrid care teams. More importantly, nursing informatics will lead the way in shaping how technology aligns with healthcare's deepest values: compassion, professionalism, safety, and high-quality care.

> *"I see the future for nursing informatics continuing to evolve beyond the focus of technology, or workflow analysis, and more on the synthesis of the data and information that are outputs of health information technology."*
> *– Murielle Beene*

Murielle Beene, DNP, MBA, MPH, MS, PMP, RN, NIBC, FAMIA: In my opinion, I see the future for nursing informatics continuing to evolve beyond the focus of technology, or workflow analysis, and more on the synthesis of the data and information that are outputs of health information technology. The power of the synthesis of this data and information translates into real, sustainable knowledge for an organization.

SESSION SPOTLIGHTS

Each HIMSS25 Nursing Informatics Forum session offered a grounded, tactical look at how nursing informatics is being applied in critical settings

Mark Sugrue, MSN, RN, NIBC, FHIMSS

What misconceptions do health system leaders still hold about digital tools for youth mental health, and how have you worked to shift those perceptions internally?

I think the biggest misconception is that health system leaders believe in the 'Build the tool and they will come' approach. We need to build digital health tools *for* patients *with* patients and to do that, we need to understand how we expect the tools to help. Youth mental health is complicated, and there is likely not a single digital tool that will work for all types of patients. We still have a lot to learn and understand about how digital health can support mental health in general and youth mental health in particular. As with any clinical intervention, we need valid research to inform decisions around which tools offer the best outcomes for patients.

What have you learned about maintaining engagement over time from both clinicians and youth patients?

Watch for workarounds. Those who are resistant to change are likely to seek out workarounds when new technologies or tools are introduced. These workarounds can have negative consequences and can introduce new complications into workflows or clinical practice. It's imperative that ongoing monitoring and education are part of any technology implementation.

> *"We need to build digital health tools* ***for*** *patients* ***with*** *patients."*
> *– Mark Sugrue*

Sigal Shafran Tikva, CCRN, MPH, MHA, PhD

What are the primary challenges healthcare systems face when integrating AI solutions in crisis situations, and how can they be mitigated?

The biggest challenge is time. In a crisis, we need immediate answers, but AI needs structure - clean data, ethical oversight, and team alignment. The risk is rushing without readiness. The solution? Prepare before the emergency. Build AI-literate teams, invest in ethical frameworks, and create flexible systems that can scale fast when it matters most.

How does entrepreneurship contribute to enhancing healthcare resilience in times of crisis?

Entrepreneurship brings agility where systems are rigid. In times of crisis, it's often nurse-led innovation—fast, frugal, and fearless—that keeps care moving. EntrepreNurses don't wait for permission; we solve problems in real time, turning disruption into opportunity and care into action.

Murielle Beene, DNP, MBA, MPH, MS, PMP, RN, NIBC, FAMIA

How have technology-enabled care models, such as virtual nursing and hospital-at-home initiatives, enhanced the rapid delivery of essential services during emergencies?

It depends on what type of virtual nursing technology-enabled care models are implemented within an organization. From my experience, the vRN care delivers essential services in emergencies in a myriad of modalities. For example, the vRN can serve as a recorder during an emergency such as a code.

Hospitals with **ROBUST INFORMATICS PROGRAMS** report a **16% reduction** in nurse turnover and improved workforce retention.

(Source: Riveraxe)

CONCLUSION

Where nursing informatics leads, healthcare follows.

The voices from HIMSS25 reinforce a clear reality: nursing informatics is no longer a support function. It is a clinical, operational, and strategic imperative. As the field continues to evolve, these professionals will shape the models, tools, and cultures that define the future of care.

From crisis response to AI partnerships to virtual care innovation, the work of nursing informaticists will continue to shape healthcare systems that are more adaptive, accountable, and human-centered.