

STRATEGIC PLAN FOR INNOVATIVE TECHNOLOGIES AND VIRTUAL HOME CARE DELIVERY MODELS

REGIONAL SCHOOL OF NURSING QUARTERLY – SPRING

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The Regional School of Nursing is an accredited program deeply rooted in the function of the Metropolitan Health System. Our nursing students learn through interdisciplinary partnership with students with the School of Medicine. They jointly explore new healthcare trends in our high-fidelity simulation lab and engage with patients and their families through our immersive integration clinical program through scenario driven and simulation education plans (Abdel Fattah et al., 2025; Hill et al. 2023; Wojcieszek et al., 2025). As the population continues to age and grow, nursing care is needed to meet the needs of elders and chronically ill (Chilton et al., 2025). This organization needs to meet the needs of students and the community. These actions are aligned with our strategic plan.

OUR DUTY IS TO CONTINUE TO ADAPT TO OUR TIMES

As part of our change initiative, we choose to: Prepare the faculty and future nursing school students with a foundation of courses on the appropriate use of information technologies, device integration, ambient documentation, telehealth, remote monitoring, and implications of artificial intelligence in the healthcare field (Cucci et al., 2025; McBride, 2025).

COMPREHENSIVE STRATEGIC PLAN AS OUR NORTH STAR FOR CHANGE

Joy McIlvaine

THE STRATEGIC PLAN FOLLOWS DOMAIN 8 INFORMATICS AND HEALTHCARE TECHNOLOGIES

We continue to be ready to meet accreditation standards of American Association of Colleges of Nursing (AACN, 2021) and to maintain our Collegiate Nursing Education (CCNE) accreditation. To do this, we engage in structured continuous professional development as faculty and transmit the best practice and innovative practice within the curriculum of the nursing school with students. We follow a plan of learning to incorporate the domains discussed in The Essentials (AACN, 2021). For 2026, our collective energies will be to learn new healthcare technologies and innovate healthcare delivery through education.

The Virtual Care Home program through the Metropolitan Healthcare System will partner with the dean and faculty of the Regional School of Nursing through the Faculty Practice Program (FPP). The curriculum will concentrate on the use of technology and innovation in the community through the Virtual Care Home program. The educational curriculum will align with Domain 8 Informatics and Healthcare Technologies.

ROADMAP ON HOW WE GET THERE THROUGH RESEARCH

Virtual Care at Home programs are credited with delivering hospital level care in the home environment with the goal to reduce length of stay, reduce bed occupancy, reduce 30-day readmission rates, and enhance patient outcomes. In a qualitative systematic review on the care delivery model variously called Virtual Hospital, Hospital in the Home or Hospital at Home by Purarjomandlangrudi et al. (2025). The first theme of care delivery included concepts of combining care modalities, integration of technology in care, and focus on the impact on patient care outcomes. The second theme included the topic of staff training, competency, and team dynamics with lessons focusing on specialized knowledge training, and care coordination between multidisciplinary teams. The third theme was identified as governance and financial impact with lessons of structure, cross-sector collaboration, and ensuring financial sustainability. And finally, the fourth theme of patient safety and selection included rigorous patient selection based on clear criteria. These themes have been reinforced by Kheiry et al. (2025) who point out the economic issues, financial incentive alignment, legislative barriers, organization of educational needs among interdisciplinary teams, institutional alignment, coordination with existing healthcare system programs in the community, provision of resources, and developing protocols for quality monitoring. Latest research on adoption by healthcare systems shows that high fidelity simulation, scenario developed lessons, and practical application of wearable technologies will keep the Regional School of Nursing students at the front of emerging technologies in healthcare that will be used in the Virtual Care at Home program.

Education through multiple levels of simulation and scenario development (AACN, n.d.) are supported by evidence. Critical thinking is a skill that nursing students need to develop to understand the risks of their actions and make appropriate decisions in the clinical context (Abdel Fattah, 2025). It is a result of an analysis and synthesis of multi-factorial evaluation methods. A key concept is for the nurse to develop awareness of their internal thinking process.



Wojcieszek et al. (2025) conducted a three-year cross-sectional study of 422 nursing students over three years using scenario driven simulation. Students rated high fidelity simulation using scenarios as highly attractive as a teaching strategy. Students rated the use of scenario-based simulation practices as significantly supportive of the soft skills of social competencies, collaboration, and applied practical skills through consistent structured debriefings.

Using the real equipment in a safe learning zone, prior to the environment of patient care was supported by Hill et al. (2023) who also encouraged the use of lower cost low fidelity simulation in conjunction with high fidelity simulation to review real scenarios. These authors also note increased collaboration among team members. The benefit of observing each other in the scenario contributed to the learning process if there was a review of lessons learned during the debrief process.



Goals of the Program

Wearable technologies are key innovative interventions to promote accurate evaluation of healthcare data, and these will bridge the gap with artificial intelligence and nursing education according to Araújo et al. (2025). Wearables are electronic devices that have a range of functions such as monitoring for physical activities, monitor sleep, provide protective layers and initiate actions such as calling for emergency services after a dangerous event such as a fall in the home. These devices can be applied to simulation based, scenario based, and clinical based training. Increasingly, nursing educators need to reevaluate their role as change agents and incorporate wearable technologies and quickly adapt to evolving challenges. Technology innovation and patient care are intertwined, and this will only become pertinent in the future. Nurse educators must incorporate new technologies and align these with nursing curriculum outcomes.

The goals of these collections of programs are for senior nursing students to participate in the Nursing Informatics Research Summit and participation in the Faculty Clinical Practice Program to integrate emerging technologies such as wearable devices with the Home Virtual Care program.

The Nursing Informatics Research Summit is a successful and well attended conference by nurses from across the region. Showcasing the student success stories, knowledge capture, and quality improvement projects as a student led podium presentation allow for the seniors to develop public speaking presentation skills. It is an opportunity to show our best and brightest ideas in the field of Nursing Informatics.

Each of our students will participate in a clinical placement rotation at the Nurse Practitioner Faculty Practice Program (FPP). This setting permits nursing faculty to maintain their clinical skills and maintain clinical relevancy (Catarelli et al. 2023). Nurse leaders do this while teaching courses, precepting interns, and contributing to the current clinical practice. This model is ideal for integrating academic nursing with population health and optimizing healthcare delivery. The faculty practice is where students experience caring for patients in our community with compassion and knowledge. This is also our training ground for emerging technology integration between the hospital and home. One of the FPP goals is to work with patients with chronic diseases who have recently been discharged and reduce hospital readmissions.

Our Change Initiative

Our change initiative has the goal to increase student knowledge, incorporate wearable devices into nursing practice (Araújo et al., 2025), and contribute to community outreach (Chilton et al., 2025). This means that our students will engage with criteria based eligible patients to enroll them in the new Metropolitan Healthcare System endorsed Virtual Care Home program (Purarjomandlangrudi et al., 2025). The students will be involved with introducing the patient to the program and evaluating the feasibility based on individualized patient goals. This will be completed with direct faculty oversight with accompanying curriculum components of simulation, debriefing, and collaborative practice to round out a compressive understanding of innovation in nursing care.



In summary, to achieve these goals we collaborate, we innovate, and we engage in teamwork, safety and excellence. Together we use innovative technologies to collaborate with interdisciplinary teams to engage

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