

A call to action: Advancing a digital future

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A nurse enters a patient room to greet the patient for the first time. Instead of conducting the usual head-to-toe assessment, the nurse is presented with views of data collected from biometric sensors and other medical devices. The sensors and other digital health tools used by the patient are continuously and unobtrusively collecting biologic, physiologic, and behavioral patient data in real time. Additionally, some of these data were collected outside of the exam room in the patient's home and work environments. Specifically, patient preferences are incorporated from patient-facing mobile health apps into the views. Social needs assessment data were shared from the community information systems.

As the nurse moves directly to using clinical judgment to determine the next course of action, clinical decision support algorithms provide options for the nurse to choose from and identify target areas for further exploration with the patient. By using data and technology, the nurse can shift toward precision health for more proactive and personalized care.

The future in which this scenario exists isn't far away. Are nurses and nurse leaders prepared for such a future?

Preparing for the future

When faced with the current challenges in the nursing workforce, pandemic uncertainty, and other emerging concerns, it can be difficult to think about the future



simultaneously. However, during times like these, preparing for a better future is more important than ever. Every decision we make as nurse leaders affects our lives and the lives of nurses tomorrow. More broadly for the nursing profession, this means taking stock of what's been accomplished thus far, having a vision as to where we want nursing to end up, setting attainable goals to track progress, and creating a roadmap to get there.

Learning from the past, creating a vision

In 2009, through a partnership between Robert Wood Johnson Foundation (RWJF) and what was then

called the Institute of Medicine, researchers conducted a consensus study and crafted a report, *The Future of Nursing: Leading Change, Advancing Health*, to set a vision for the nursing profession over the next decade.¹ This mostly focused on building the volume of the nursing workforce. Other key messages included: educating more nurses, especially BSN- and PhD-prepared nurses; full-practice authority for advanced practice nurses; growing nurse leaders; and improving the collection of data regarding the nursing workforce. Progress was made; however, this initial report didn't anticipate the proliferation of electronic medical record usage

spurred by the Health Information Technology for Economic and Clinical Health (HITECH) Act, or the advent of the smartphone. In fact, the first report had very little mention of technology use in nursing practice in general.

Fast forward to 2018, when RWJF again approached the now National Academy of Medicine about another consensus study. But this wouldn't be simply *Future of Nursing, Part 2*; it would be very intentional about the role of nurses in advancing health equity. It would make the case that nurses are uniquely positioned to improve health for all and chart a path to get us there in the next decade. This requires new care models, innovative practices, and novel education methods—all supported by advanced technologies and data—in an increasingly digital future.

In May 2021, the second consensus study report on the nursing profession was released: *The Future of Nursing 2020-2030: Charting a Path to Achieve Health Equity*.² The vision of the report, created by the National Academy of Medicine Committee on the Future of Nursing 2020-2030, is built on strengthened nursing capacity and expertise. The committee concluded that nurses are well positioned to achieve health equity by aligning public health, healthcare, social services, and public policies. This vision, along with a health equity lens applied to a new digital future for nursing education, practice, and research, led to the development of the chapters and recommendations.

Key messages

In brief, the report identifies four key areas for action:

1. Remove practice barriers

The first is to permanently remove barriers related to scope of prac-

tice. To address these barriers, the report recommends expanding the scope of practice for advanced practice nurses, including NPs, and removing institutional barriers, such as telehealth and virtual care restrictions.

2. Increase value recognition

The second area is focused on increasing the value of nursing contributions. Evidence suggests that the work that nurses do—especially in relation to the social determinants of health (SDOH)—is often unrecognized and undervalued. Recommendations include embracing different payment models and centering performance measures on quality, outcomes, and health equity metrics. Another recommendation is the use of a national nurse identifier so that through data analyses, it's leveraged to meaningfully quantify the value of nurses.

3. Support equity advancement

Preparing nurses to advance equity is the third key area. Preparation that addresses the evolving health, social, and economic needs of communities should take many forms. The report recommends steps that educators and employers should take, such as expanding the environments where nurses train to prepare nurses to work in and with communities, increasing the capacity of the nursing workforce to respond to public health emergencies and natural disasters, and supporting nurse well-being so nurses can in turn support the well-being of others.

4. Expand workforce diversity

The final area of focus is diversification of the nursing workforce. To meet the changing needs of our nation, it's critical to intentionally recruit, support, and mentor

nurses from diverse backgrounds to ensure that the next generation of nurses reflects the communities they serve.

Components of the digital future

With the rapid growth of technological innovations, the future of health will likely be increasingly digital. This includes new tools, advanced data science methods, robotics, and sensors. Nurses will not only be interacting with more technology but with more data. In addition, virtual care has already taken off. Nurses will be working in new settings and caring for patients in new ways. This includes virtual care and the shift from illness to wellness, with an emphasis on overall public health. The future of nursing practice, education, and research must leverage technology advances in a way that supports equitable healthcare.

The advanced use of data and technology in nursing practice has connections to each of the key messages in the report. It's best summarized in recommendation #6 of the report, which is specifically geared toward informatics and technology: "...healthcare systems should incorporate nursing expertise in designing, generating, analyzing, and applying data to support initiatives focused on SDOH and health equity using diverse digital platforms, artificial intelligence, and other innovative technologies."² In order to address health equity, nurses need data along with the knowledge of how to use data and technology tools. It's not simply collecting social needs data, but facilitating the sharing of these data across settings, especially with community-based organizations. Once data are collected from and shared with various sources, a related task is to incorporate them into nursing practice in a meaningful way. This

requires proper visualization and contextualization so nurses can efficiently make use of the data in clinical decision-making.

The report also emphasizes that nurses should be provided the space and resources to not only innovate but to constructively inform the design and deployment of new technologies, so they're free of bias and can augment nursing processes rather than create additional burden. New technologies must be juxtaposed with the technological stress in the workplace; so as we continue with technological advances, the future calls for a significant redesign of clinical documentation and an examination of clinical alerts and alarms. This must be a real, measured approach as nurse researchers continue to investigate the effects of new data sources and technologies on nurses' well-being.

An increase in trained nursing informaticists will be needed to leverage artificial intelligence and advanced visualization methods to summarize and contextualize SDOH data in a way that provides actionable insights. Even nurses who don't specialize in informatics must begin to understand how the analysis of massive data sets can influence care outcomes. Some of the needed competencies for nurses include the skills to project a caring relationship through technology and the ability to personalize care based on patient preferences, social needs, and technology access.

Supporting and tracking progress

The latest *Future of Nursing* report synthesizes the evidence and provides recommendations, but next steps require the nursing profession to take action. There's a role for nurse leaders in every setting:

1. Introduce to your teams

Not all nurses may be aware of the report or may be unaware of the recommendations. Look for ways to share the conclusions and recommendations related to your practice environment and seek feedback from nurses as to what resonates with them or if they perceive gaps in the work. Prospection, or thinking about the future, contributes to improved psychological well-being and can make our work and lives more meaningful. Simply discussing the future of the nursing profession will likely yield benefits. Specifically encourage meaningful discourse on what a digital future might look like for the nursing profession.

2. Contribute to the shared vision

At this time, there are already action plans in flight. For leaders seeking ways to align with others, specialty professional organizations may prove helpful. The Healthcare Information and Management Systems Society (HIMSS) has identified objectives related to nursing innovation, entrepreneurship, and the development of nursing informatics professionals. Along with the HIMSS Nursing Informatics Committee, tasks and timelines have been developed to meet the objectives over the next 10 years.

3. Connect with Campaign for Action

The Campaign for Action is a nationwide initiative to transform healthcare through nursing. Their work is guided by the *Future of Nursing* reports. An action hub created on the Campaign for Action website contains ideas, tools, and resources for organizations that want to implement the recommendations. Specifically, 54 action plans correspond to the report's 54 subrecommendations that fall under its 9 major recommenda-

tions. Each plan has specific tasks, timelines, and goals to guide planning. In addition, each state has an action coalition to carry out the work of the Campaign for Action at local, regional, and state levels. State coalitions leverage power within communities, create funding opportunities, thoughtfully engage with lawmakers, and brainstorm new ideas.

A bright future

A digital future is coming, and in some cases, the future is already here. Since the release of the 2020-2030 report, nurses have used technology and innovations to create efficiencies and provide optimal patient care. However, continued planning, action, and forward movement is still paramount. *The Future of Nursing* report is one tool to get us there. But strong nursing leadership continues to be critical to transforming healthcare in a way that creates a healthier, personalized, and equitable future for all. As nurse leaders, we're poised to lead the way with inspiration, motivation, and optimism about the future of nursing. **NMI**

REFERENCES

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The author has disclosed no financial relationships related to this article.

DOI-10.1097/01.NUMA.0000834516.47612.0d