Impact of the COVID-19 Pandemic on the Future of Nursing Education
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Abstract

Nursing is the largest health profession, with nearly 4 million providers practicing across acute, primary, and public health care settings. In response to the pandemic, nursing schools halted on-site course delivery and redesigned programs to attenuate risks to students and faculty. Key challenges faced by schools included financial cutbacks, rapid increases in online learning technology, maintaining student academic progression, disruption to clinical learning opportunities, and meeting accreditation standards, while addressing the stress and loss experienced by faculty, staff, and students. Despite challenges, nursing organizations provided guidance for decision making, new learning resources, and faculty development opportunities. Schools of nursing leveraged their resources to redesign nursing curricula, strengthen partnerships for student clinical experiences, and address needs of the community.

Nursing education will look different from its prepandemic profile in the future. Lessons learned during the pandemic point to gaps in nursing education, particularly related to disaster and public health preparedness, health equity, and technology. The American Association of Colleges of Nursing’s new Essentials—standards for professional nursing education—were finalized during the pandemic and reflect these lessons. The need for nurse scientists to conduct emergency response research was made evident. The importance of strong academic–practice partnerships was highlighted for rapid communication, flexibility, and responses to dynamic environments. For the future, nursing education and practice must collaborate to ensure that students and practicing nurses are prepared to address emergencies and pandemics, as well as the needs of vulnerable populations.

Nursing is the nation’s largest health care profession, with over 4 million registered nurses currently licensed in the United States. Nurses are the primary providers of hospital patient care and deliver most of the nation’s long-term care. Public health nurses represent the single largest group of public health practitioners working in state and local health departments.

Over 633,000 lives have been lost in the United States due to the pandemic, with COVID-19 creating an untenable burden in terms of morbidity and mortality for nurses. The dramatic surge in the demand for health care services occurred concurrently with concerns over the allocation of scarce resources, such as personal protective equipment (PPE), threatening the safety of nurses and other health care workers. Staffing became a major issue across many hospitals and health systems, and critical care capacity in intensive care units was threatened. A review of the literature from March 2020 to June 2021 identified key themes, including the need to: pivot away from traditional nursing education; integrate cognitive, affective, and psychomotor learning domains across curricula; use multiple modalities for delivery of health professions education to include asynchronous, remote technology-driven strategies; and support frontline health care workers while sustaining continuity of academic programming.

Impact on Academic Nursing
Impact on schools of nursing
All health professions schools were asked early on to support a robust public health response to COVID-19. This required them to rapidly pivot and adapt curricula to reflect current pandemic response practices to mitigate community spread of infection and ensure safe clinical learning experiences for students and faculty. The guidance for institutions of higher education, from the Centers for Disease Control and Prevention (CDC),1 presented fluctuating guidelines, creating uncertainty around what actions schools should take and when, and how it was safe to reopen. As a discipline that requires clinical practice experiences, the guidelines presented nursing schools with challenges and created some confusion. In response to guidance from the CDC, many nursing schools halted on-site course delivery and immediately began redesigning program delivery to attenuate risks to faculty, students, and staff. As the pandemic continued its spread, many more nursing schools elected to suspend on-campus classes, revised workspace options for faculty and staff, and implemented curricular changes to attempt to maintain academic progression of students.

Concurrently, the required transitions to online course delivery and testing were implemented with minimal time to modify teaching and learning opportunities. Many faculty persons were unfamiliar with remote teaching and virtual advising and required assistance to transition to digital learning platforms and redesign courses. Faculty workload, grading metrics, and testing processes all came under scrutiny by academic administrators along with examination of how best to deal with academic credit hours and regulatory requirements.

An even greater impact was made on almost all schools by the financial challenges brought about by COVID-19. Many schools experienced severe cuts in...
Impact on clinical education
The abrupt cancelation of on-site clinical training at the outset of the COVID-19 pandemic forced nursing schools to employ more simulation-based and virtual education experiences to augment the curricula, to allow students to complete their education, and sustain the nursing workforce pipeline while still meeting regulatory requirements. A previous National Council of State Boards of Nursing (NCSBN) study showed that, under certain conditions, substituting simulation-based education for up to 50% of a prelicensure nursing student's clinical hours resulted in comparable educational outcomes. Based on this work, some state boards eased previous restrictions on the use of simulation, which allowed programs to modify their curricula. As many health systems expanded the use of telehealth services to deliver care, many schools implemented more telehealth experiences for students, in both entry- and advanced-level programs. Many innovative uses of simulation have been shared by schools. For example, the Mount Carmel School of Nursing created a Skillsnasium by expanding its simulation facility from the basement of the school into the first-floor gymnasium. This generated not only more space to allow social distancing but also enthusiasm and engagement for students and faculty alike, as simulation became a more prominent and visible aspect of ongoing academic activities.

Impact on nursing students
Most nursing students were able to progress through their programs throughout the pandemic, despite the disruptions to campus life. However, challenges to complete clinical coursework requirements forced some students to delay graduation. Students who lacked experience with online learning were at a disadvantage; many did not have access to the internet at home or did not have a quiet, dedicated space to complete online coursework. Some students expressed perceptions of a loss of faculty support or mentoring. Others felt more engaged and able to connect directly with their faculty through virtual platforms. Students experienced severe anxiety and financial hardship through loss of tuition funding, unemployment for themselves or others in their family, or other financial impacts.

Academic Nursing Responds
Nursing organizations across the globe responded to health care needs of the population in general, the needs of nurses, as well as the need for new learning resources to prepare nurses to address the pandemic. AACN engaged with key nursing leaders and member schools to gather intelligence, establish clear lines of communication, and disseminate crucial information. A series of seminal documents were produced to provide guidance and information for deans, faculty, and others to support decision making and actions. Dr. Deborah Trautman, AACN president and chief executive officer, in collaboration with Dr. Veenema and colleagues at the Association of American Medical Colleges published a statement that provided information to schools to guide decision making and support efforts to maintain the quality of nursing education programs during the pandemic.

In early 2020, professional nursing organizations developed “just-in-time” educational learning opportunities and modules specific to the pandemic response. For example, NCSBN launched a series of learning modules for nurses that addressed modes of transmission, protecting oneself, laws and ethics during COVID-19, and identifying credible information versus hoaxes.

From the earliest days of the pandemic, academic nursing leaders positioned their programs to respond at the intersection of higher education and health care delivery. Working with experts at the Johns Hopkins Center for Health Security, AACN issued guidance to schools of nursing in early March 2020 on sustaining didactic and clinical education, implementing alternate teaching approaches, and protecting faculty and students. AACN joined with 9 national nursing organizations later in March, including NCSBN, American Nurses Association, and the Organization of Associate Degree Nursing, to issue a policy brief promoting the use of academic–practice partnerships to bridge gaps in patient care and continue clinical nursing education with safety protocols in place.

The need for faculty development support services grew exponentially and challenged schools to provide resources and ongoing support for faculty and students for continuity of learning. AACN moved to bridge this knowledge gap by presenting a comprehensive COVID-19 Response Webinar Series (see Table 1), which was attended by more than 20,000 nurse educators, students, and others looking for practical strategies on maintaining continuity in nurse education and research priorities.

To further engage the nation's academic nursing leaders in solution sharing, AACN’s Gallery of Leadership was launched in May 2020 to highlight statements from deans across the country on what nurses in academia and practice have done to address the challenges experienced during the pandemic. The words most frequently used to describe faculty, students, and others were
### Table 2: American Association of Colleges of Nursing’s COVID-19 Response Webinar Series

| Subject | Webinars |
|---------|----------|
| Decision making | • Making Informed Decisions in Response to COVID-19  
• Strategic Diversity Leadership and Culturally Relevant Decision Making During COVID-19  
• What Is the New Normal? Guidance for Reopening & Returning to Campus  
• Improving Nurse Preparedness for a Pandemic Response: Implications for U.S. Schools of Nursing  
• Innovations in Personal Protective Equipment: Guidance for Schools of Nursing  
• Considerations for Reopening U.S. Schools of Nursing During COVID-19  
• Practice and Policy in a Pandemic: Accreditation, Regulations, Future Implications  
• Crisis Standards for Care and Staffing for Surge During COVID-19  
• COVID-19 and Academic–Practice Partnerships: During Pandemic and Beyond  
• Advancing Health Equity During COVID-19 Pandemic |
| Admissions | • Moving Your Admissions Process Online During COVID-19  
• COVID-19 Implications for Admissions and the Stability of Holistic Admissions Practices |
| Clinical and simulation alternatives | • F.A.S.T.: Academic Nurse Educators Respond to COVID-19  
• Aligning Simulation Within COVID-19 Contingency Plans  
• COVID-19: Breaking Through Denial to Action  
• Preparing and Transitioning Students to Telehealth Clinical Hours in Graduate Education  
• Clinical Learning Opportunities With the American Red Cross  
• Keeping Nursing Students Safe in Clinicals |
| Teaching and online education | • Bridging the Gap—Implementing Technology to Deliver Courses Online  
• Teaching Nursing Students How to Manage Crisis During COVID-19  
• COVID-19 Series: Techniques to Teach Assessment Online NOW!  
• Considering Pass or No Pass Education in Response to the COVID-19 Pandemic  
• Interprofessional Teaching and Collaborative Practice During COVID-19: A Community Conversation  
• Making the Pivot: Online Learning During COVID-19 |
| Leadership | • A Call to Leadership: Navigating Uncharted Waters  
• Update from Nursing Leadership on the Front Lines  
• Academic Nursing Moving Forward in a Post–COVID-19 World |
| Public health | • Public Health: Nursing Education and the COVID-19 Pandemic  
• Public Health Insight Into the COVID-19 Pandemic  
• Enhancing Public Trust and Health with COVID-19 Vaccination: Planning Recommendations  
• COVID-19 Vaccine: Key Considerations for Academic Nursing  
• COVID-19: Promoting Resilience in Time of Crisis |
| Mental health and culture | • Creating Calm and Civility during Uncertain Times  
• Culture and Care During the COVID-19 Pandemic: Yes, It Matters  
• Addressing the Collective Mental Health Burden Imposed by COVID-19  
• Hosting a Virtual White Coat/Oath Ceremony  
• Boosting Resilience and Well-being During COVID-19: Evidence-Based Interventions That Work |
| Student issues | • Job Seeking During a Pandemic: Every Nurse a Hero  
• Innovations in Personal Protective Equipment: Guidance for Schools of Nursing |

### Gaps in nursing education

The COVID-19 pandemic revealed deep gaps within the already fragmented and overburdened U.S. health care and public health systems, resulting in significant excess mortality and morbidity. These gaps included the health care workforce’s level of preparedness and capacity to respond, which resulted in the need for nursing and other health professions education programs to carefully reevaluate their academic enterprises, the use of educational technology, curricula, and experiential learning opportunities.

COVID-19, while a global pandemic threatening human health in the present, can also be viewed as a harbinger of future events. Climate change, natural disasters, and future emerging infectious disease outbreaks loom ahead. Expanding and improving disaster and public health emergency education and training for nurses is vital. Lessons learned from the pandemic reinforced the empirical evidence that nurses and other health care providers were not well prepared to respond.\(^{18,19}\) National nursing workforce preparedness is a crucial component of prelicensure education and lifelong professional development, including ongoing practice (regular drills and exercises). Schools of nursing, challenged by regulatory requirements, a lack of faculty preparedness, and other pressures, had not allocated sufficient time in their curricula to ensure that nurses were knowledgeable in infection control and disease containment strategies, the selection and appropriate use of personal protective equipment (PPE), and the fundamental concepts of disaster and pandemic response. The impact of these curricular decisions was profound, compassionate, courageous, innovative, tenacious, and flexible. Worth noting, individual schools of nursing responded by leveraging their unique attributes and partnerships. Nursing schools’ responses to the COVID-19 pandemic are shown in Table 2.\(^{17}\)
**Table 2**

| School                                | Response                                                                                                                                 |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Florida International University      | Faculty and students assisted the National Guard with establishing testing and vaccination sites.                                       |
| Randolph-Macon College                 | Online coursework was not offered before the pandemic. The school quickly pivoted to distribute technology to maintain equity of resources and move to online coursework. This transition allowed students to access eBooks and smartphone applications, share clinical and didactic course work using AirDrop and meet in real time using Facetime. |
| Simmons University                     | Faculty established a nonprofit food bank and a delivery service for seniors.                                                            |
| St. Francis University                 | The Department of Nursing collaborated with the school’s engineering and business departments to launch an innovation that involved making face shields using 3D printers. Nursing field tested the product and noted high levels of satisfaction. More than 1,000 face shields were made and distributed to 5 surrounding health care facilities. |
| University of Kentucky                 | Faculty, together with their practice partners, converted student clinical experiences to telehealth experiences in a matter of days.        |
| University of Maryland                 | Faculty, students, and alumni sewed over 6,000 masks for hospital and community workers.                                                 |
| University of Tennessee, Knoxville     | Students volunteered more than 600 hours and administered approximately 5,000 COVID-19 vaccinations in partnership with Covenant Health, the Knox County Health Department, Cherokee Health Systems, University of Tennessee Medical Center, and Faith Leaders Church Initiative. |
| University Health Sciences Center      | At the mayor’s request, the school created a nurse pool of over 150 volunteers to be ready to participate in pandemic response efforts if needed. |
| University of Wisconsin-Madison        | The School of Nursing led the development and implementation of a COVID-19 call center and testing site for the entire academic health center. Once the vaccine was available, faculty, staff, and students led the implementation of a vaccine hub, which enabled more than 150,000 vaccinations focused on the academic community and at-risk populations. |

resulting in major knowledge and skill gaps in the nursing workforce.

**Nursing is public health**

Nursing is public health in its truest sense. Nursing has a long and storied history, from Dr. Henry Silver in 1965, to present-day efforts to reach vaccine-resistant communities, nurses provide the bulk of the nation’s public health care. To meet 21st-century challenges, immediate expansion within academic nursing is recommended in the following areas: climate change and environmental health; population health; disaster and public health emergency response; health equity; and health care technology, including patient-facing technologies such as robotics, telehealth, and other virtual care technologies.21 Also important are competencies in data analytics and the use and application of clinician-facing technologies, such as electronic health records, clinical decision-support tools, mobile applications, and screening and referral tools.

**Preparing the future nursing workforce**

To address gaps in nursing curricula, AACN adopted competency expectations for all professional nurses in its recently released Essentials document, which lays out new standards for nursing education and calls for preparedness to protect population health during disasters and public health emergencies.22 In its work to prepare nursing education for the future, AACN is calling for nursing schools to transition to a competency-based approach with the goal of documenting what graduates can do rather than what they have been taught.

In keeping with AACN’s history for establishing curricular standards for professional nursing programs, the Essentials outline expectations for graduates of baccalaureate, master’s, and practice doctorate nursing programs. Using these guidelines, schools of nursing demonstrate adherence to quality education and meeting accreditation standards. The reenvisioned 2021 Essentials provide an educational framework for preparing nurses for both entry-level and advanced-level nursing practice. The process to revise the Essentials was initiated before the outbreak of COVID-19. However, the process to develop a consensus-based document was continued and finalized during the pandemic. What was experienced and learned throughout the pandemic significantly impacted the thinking and context for this work. Competencies needed by nurses to address disasters and future infectious disease emergencies are embedded across all domains for both entry- and advanced-level nursing practice. Although all competencies delineated in the Essentials are important for practice, select examples of competencies in each domain are shown in Table 3 and reflect some of the most critical competencies needed during the pandemic. Population health competencies that specifically address disaster and pandemic response also are included in the revised Essentials and will better prepare the next generation of nurses to respond safely in future events.23

**Need for nurse educators and scientists**

Doctoral-prepared nurse scientists are needed to conduct disaster and public health emergency research as well as to prepare future nurses to practice in the changing environment. In a “Call to Action” white paper,24 experts from nursing, public health, and emergency management called upon schools of nursing to establish coalitions to develop evidence-based learning opportunities using multiple delivery platforms that could be integrated in undergraduate and graduate nursing curricula. They also called for action to increase the number of doctoral-prepared nurse scientists serving as principal investigators on disaster research projects. At the time, there were no formal training programs for nurse scientists interested in research related to disaster preparedness and...
Table 3

| Domain | Examples of professional nursing competencies |
|--------|------------------------------------------------|
| Domain 1: Knowledge for Nursing Practice | 1.2 Apply theory and research-based knowledge from nursing, the arts, humanities, and other sciences |
| Domain 2: Person-Centered Care | 2.1 Engage with the individual in establishing a caring relationship |
| | 2.2 Communicate effectively with individuals |
| | 2.3 Diagnose actual or potential health problems and needs |
| | 2.4 Demonstrate accountability for care delivery |
| | 2.5 Promote self-care management |
| | 2.6 Provide care coordination |
| Domain 3: Population Health | 3.1 Manage population health |
| | 3.2 Engage in effective partnerships |
| | 3.3 Advance equitable population health policy |
| | 3.4 Demonstrate advocacy strategies |
| | 3.5 Advance preparedness to protect population health during disasters and public health emergencies |
| Domain 4: Scholarship for the Nursing Discipline | 4.1 Integrate best evidence into nursing practice |
| | 4.2 Integrate best evidence into nursing practice |
| Domain 5: Quality and Safety | 5.1 Apply quality improvement principles in care delivery |
| | 5.2 Contribute to a culture of patient safety |
| | 5.3 Contribute to a culture of provider and work environment safety |
| Domain 6: Interprofessional Partnerships | 6.1 Communicate in a manner that facilitates a partnership approach to quality care delivery |
| | 6.2 Perform effectively in different team roles, using principles and values of team dynamics |
| Domain 7: Systems-Based Practice | 7.1 Apply knowledge of systems to work effectively across the continuum of care |
| | 7.2 Optimize system effectiveness through application of innovation and evidence-based practice |
| Domain 8: Informatics and Healthcare Technologies | 8.1 Use information and communication technology to gather data, create information, and generate knowledge |
| | 8.2 Use information and communication technologies and informatics processes to deliver safe nursing care to diverse populations in a variety of settings |
| Domain 9: Professionalism | 9.1 Demonstrate accountability to the individual, society, and the profession |
| | 9.2 Integrate diversity, equity, and inclusion as core to one’s professional identity |
| Domain 10: Personal, Professional, and Leadership Development | 10.1 Demonstrate a commitment to personal health and well-being |
| | 10.2 Develop capacity for leadership |

response, despite several federal resources available for planning and enhancing such training programs. Six years following publication of the paper, there still are no graduate nursing programs or programs of research dedicated to preparing nurses for disasters and public health emergency events.

**Importance of academic–practice partnerships**

Consensus is building among nurse leaders that practice and academia must share responsibility for defining and preparing the future nursing profession. Using recent experiences addressing COVID-19 and reenvisioning the *Essentials*, the door is open to consider how we partnered well and how we can partner better.

In 2020, the AACN Board of Directors hosted a virtual assembly focused on “Lessons Learned: Exemplary Partnerships in Response to COVID-19.” Thirteen board members, plus 6 deans and directors from schools of nursing, 17 practice leaders, and members of the AACN senior staff convened to review lessons learned as they responded to COVID-19 and to explore the implications for the future of academic–practice partnerships. Key topics of discussion included leadership in a time of uncertainty, lessons learned in navigating the COVID-19 pandemic, opportunities to strengthen partnerships, and recommendations for rethinking the academic–practice partnership. Top recommendations for the future included the need for developing strong academic–practice relationships, ongoing communication between partners to facilitate rapid responses and flexibility, preparing nurses for practice with the needed competencies to address a pandemic, and strengthening clinical learning experiences.

Issued before the pandemic, AACN’s report on *Advancing Healthcare Transformation, a New Era for Academic Nursing* served as an important resource for helping to sustain excellence in academic nursing during the pandemic. In this report, examination of partnerships between academic nursing and academic health centers revealed the critical importance of collaborative leadership of university presidents, deans of nursing and medicine, and health system chief executives. Also, the development of this culture requires nursing faculty to have a deeper involvement in clinical practice and greater opportunity to engage in innovation with their partners. Literature has confirmed the relevance of the *New Era* report amidst a pandemic, emphasizing the capacity of nursing’s academic–practice partnerships to influence the next generation of nursing, impact health equity, and improve the health of the population. It also has confirmed key themes of leadership, communication, alignment of effort, provider well-being, and collaboration across disciplines as key domains for disaster response.

Finally, academic–practice partnerships need to extend beyond hospital walls. The opportunity to improve U.S. population health outcomes in a post–COVID-19 world resides in our ability as a nation to shift from a hospital-based health care system to one that is community-centric and values primary care and prevention. Nurses providing care and leadership are needed in federally qualified health centers, public health departments, home care organizations, rural health centers, migrant health...
centers, school-based health centers, mental health and substance abuse clinics, prison-based health care facilities, and more. Education practice sites must be established outside the hospital; yet, currently, these partnerships are scarce. Academic nursing would be well served to explore the relationships needed now to cocreate these partnerships and work collaboratively to overcome barriers to their establishment.

Lessons Learned for the Future

Inspirational stories have emerged of faculty and student nurse involvement in the pandemic response, such as staffing COVID-19 testing clinics, conducting contact tracing with health departments or Medical Reserve Corps, counseling and educating patients via telehealth initiatives, and hosting drives to collect PPE for frontline workers. Despite the overwhelming physical, emotional, and mental burden on nurses created by the COVID-19 pandemic, student enrollment in baccalaureate, master's, and doctoral nursing programs increased in 2020, and nursing school applications for programs increased 5.6%.

Whether or not this trajectory will continue is unknown, and many nurses and nurse educators have expressed intention to leave the profession postpandemic. As we consider the future of academic nursing in a post–COVID-19 world, the voices of current students can contribute to defining this path. Their interpretation of what they experienced during the pandemic should inform planning and academic decision making.

Voices of students

AACN surveyed members of its Graduate Nursing Student Academy to elucidate the student experience during COVID-19. Respondents cited valuable and impactful experiences that enhanced their learning and professional development. Students commented on the agility of their schools and faculty in adapting to unforeseen and uncontrollable circumstances during the pandemic. Many described faculty and staff being more responsive to students during this time and expressed gratitude for the camaraderie, caring, and the more personal nature of communications. In fact, communications through Zoom, virtual classes, simulations via online learning platforms, virtual work with faculty advisors and preceptors, and virtual grand rounds to learn more about faculty research were all reported to have great value. Students also were clear in articulating their preferences for future academic programming. Students requested that schools not return to mandatory in-person learning, eliminate the over reliance on PowerPoint-based lectures, and better prepare faculty in using educational technologies. Students also felt strongly about not being solely responsible for locating clinical experiences. Finally, students requested more interactive critical thinking activities, increased communication about CDC guidelines and vaccine availability, permission for clinical hours to be completed between semesters, increased access to textbooks and articles, and an increase in the number of telehealth hours that could be used for clinical experiences.

Organizational voices

The NCSBN convened discussion groups with education consultants to discuss strategies to support progression of programs while continuing to maintain established standards. Their work confirmed the need to strengthen collaboration between academia and clinical practice and foster innovation in course delivery. NCSBN also committed to reevaluate their recommendations for acceptable levels and use of virtual simulation for clinical training.

In December 2020, the Tri-Council for Nursing—an alliance between AACN, the American Nurses Association, the American Organization for Nursing Leadership, NCSBN, and the National League for Nursing—convened a group of more than 100 nursing and health care stakeholders for an interactive virtual summit. The goal of the summit was to identify critical lessons from the pandemic and future opportunities for transforming nursing and health care. A presummit survey and interactive small group discussions generated overarching themes and 22 priority areas for possible action by nursing practice, education, and regulation. Recommendations for nursing education are shown in List 1.

Moving Nursing Education Forward to Prepare for the Future

The global pandemic has irrevocably changed the U.S. health care and public health systems as well as nursing practice and nursing education. As we consider lessons learned and what the future health care workforce may encounter, it is evident that the challenges faced by schools of nursing, including fiscal impact and resource availability, will continue for a considerable time. The pandemic has revealed the need for the academic nursing enterprise to adapt to stay current and relevant for the health care system. Organizations and schools of nursing have demonstrated flexibility and creativity in responding to multiple challenges. The lessons learned and opportunities presented have led to many creative, innovative changes that should be sustained or further explored.

Nursing education programs can ensure that graduates are prepared with the needed competencies to promote change, address future emergencies and pandemics, and assume accountability for meeting the needs of vulnerable and high-risk populations. The recently released Future of Nursing 2020–2030: Charting a Path to Achieve Health Equity...
reaffirms what has been so vividly seen throughout the pandemic and emphasizes the need for nurses to be prepared to address social determinants of health, population health, and health equity if we are to improve health for all.33

Many of the changes that have occurred—the move to remote learning, new uses of simulation and interactive learning modalities, strong academic–practice partnerships, and new models for experiential learning—were not new concepts, but development and implementation were accelerated during the pandemic. Nursing must develop and test new learning and assessment methodologies, particularly those for the provision of remote learning and care delivery. Nursing education needs to take advantage of this opportunity and rethink how to best prepare the future workforce.

Nursing leaders in academia and practice can advocate for increased nursing involvement in the planning, design, and evaluation of care delivery services. Strong, ongoing academic–practice partnerships are needed to support planning for future scenarios as well as the preparation of new nurses. Nurse scientists should redouble their efforts to generate the knowledge critical to addressing future emergencies.

New and future threats to human health will continue to emerge, including novel infectious disease outbreaks, climate-related disasters, and violence due to social unrest, which must be planned for and addressed through curricular reform and programmatic changes. The future nursing workforce needs to be knowledgeable and capable of rendering care, leading health systems, and surviving in a dynamic health care and public health system. Preparedness and competence in disaster and pandemic response are critical for future and current nurses. A national dialogue with nursing education and practice is needed to ensure we are preparing graduates to function and flourish in what we know is a rapidly changing environment, while simultaneously maintaining an effective response to a pandemic that continues to evolve.

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