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COVID-19’s Disruptive Innovation: 
Accelerating the Academic Preparation 
of Professional Nurses’ Ambulatory and 
Telehealth Roles

Sara Kollman, DNP, RN, NE-BC, Denise Braegger, MSN, MBA, RN, and 
Barbara Head, MSN, RN

The pandemic has enhanced professional nursing’s role in ambulatory and tele-
health practice, and reinforced the academic preparation gap for practice-ready 
nurses in these specialties. Population health and community-focused care, fully 
leveraging ambulatory and telehealth practices, are the immerging venues of 
health care and a solution to health care equity and affordability. Accelerated 
academic reformation is pivotal to fundamentally prepare for the nursing’s 
esential post-pandemic role. An overview of key industry report recommenda-
tions, disruptive innovation exemplars in academic design for ambulatory and 
telehealth practice-ready graduates, and implications for nurse executives in 
leading this transformation are identified.

The COVID-19 pandemic has challenged and 
disrupted all aspects of health care. We have 
survived early acute care surges in critically ill 
patients with unclear infectious disease risks, supply 
chain disruption, and essential worker shortages, and 
identified the unrecognized importance of public health infrastructure and impacts of social de-
terminants of health. We are continuing to learn about 
the impact of virus variants, the resiliency impacts to 
our workforce, and the long-range financial sequelae. The exponential speed of this disruptive innovation has pushed health care organizations, private and public 

sector businesses, and academia to come together in 
ways only imagined prior to COVID-19. 

One outcome is enhancing nursing’s role in community, ambulatory, and telehealth care venues now and for future care delivery. In addition, it has rein-
forced the gap of academic preparation for practice-
ready ambulatory and telehealth professional nurses. Compounding this is the lack of applicable clinical experiences across the continuum of care and in the management of complex conditions in non–hospital-
based, acute care delivery settings. The Future of Nursing 
2020-2030: Charting a Path to Achieve Health Equity and 
the American Association of Colleges of Nursing’s 
(AACN) The Essentials: Core Competencies for Professional 
Nursing Education are the roadmaps to our profession’s 
future trajectory.1,2 

The stage is set for revolutionary and innovative 
changes for the nursing profession. Population health and community-focused care, fully leveraging ambu-
latory and telehealth practices, are the emerging health care venues as well as a solution to the US health care 
equity and cost containment challenges. Correspond-
ing and aligned academic reformation is pivotal to lead this change and fundamentally redesign the nursing profession’s essential post-pandemic role. A high-level overview of the report recommendations, exemplars of disruptive innovations in academic preparation for population-based, ambulatory care, and telehealth

KEY POINTS

- The Future of Nursing 2020-2030: Charting a Path to Achieve Health and AACN’s The Essentials: Core Competencies for Professional Nursing Education are summarized as frameworks for academic redesign.

- Exemplars of disruptive innovations in academic preparation for ambulatory and telehealth practice-ready graduates are highlighted.

- Implications for nurse executives in leading this transformation are shared.
professional nursing practice roles, and implications for nurse executives are identified.

OVERVIEW OF KEY INDUSTRY REPORT RECOMMENDATIONS

The AACN’s Essentials report summarizes changes in the post-pandemic preparation of the next generation of nurses. The recommendations include expanded curriculum in 4 spheres across the care continuum including disease prevention and promotion of health and wellness; chronic disease management; regenerative and restorative care; and hospice, palliative, and supportive care. The aim is to develop practice-ready graduates for diverse roles and to intertwine diversity, equity, and inclusion, and social determinants of health (SDOH) concepts throughout all aspects of outcome-focused learning. Enhanced nursing informatics and technology skills for pre-licensure programs were also emphasized.

The Future of Nursing report sets visionary recommendations for the next decade. It leverages the disruptive innovation and embraces the lessons of COVID, while emphasizing the urgency of diversifying our workforce, redefining professional academic preparations, expanding prioritization of SDOH and care to the underserved, and re-energizing and building resiliency of all health care team members. The pandemic only demonstrated and reinforced the increased need for interprofessional and cross-sector collaboration, expansion of scope of practice regulations nationwide, and implementation of novel care delivery models. By embracing the practices and unprecedented innovations expedited by COVID, we can accelerate the adoption of many of the report’s recommendations.

DISRUPTIVE ACADEMIC INNOVATION IN THE COVID ERA

The pandemic has illustrated that telehealth, home-based care, and other ambulatory nursing services are fundamental to managing chronic and complex health conditions across the lifespan and care continuum. To mitigate strained health care resources, professional nursing roles and scope of practice standards were expanded. Likewise, academic programs were stretched to identify novel student clinical opportunities. Existing curriculums leveraged creative learning objectives to bridge clinical opportunities across the care continuum to align with pandemic response efforts. A systematic review of the literature and a thorough review of academic programs are outside the scope of this article; however, several exemplars of program ingenuity are highlighted.

Pre-licensure programs with expanded curriculum and learning opportunities in community, ambulatory, and/or virtual care clinical areas were beginning to emerge prior to the pandemic. One such program was Emory University, Nell Hodgson Woodruff School of Nursing. Coburn et al. published a summary of the novel ambulatory curriculum and expanded clinical requirements in the baccalaureate program. Content in care coordination, transition management, and virtual care were included, and both simulated and live clinical experiences reinforced the unique aspects of the ambulatory care nursing specialty.

Several academic programs have received grants from the US Department of Health and Human Services Bureau of Health Workforce, Division of Nursing and Public Health, to support ambulatory and telehealth program redesign. The University of Alabama Birmingham has been a pioneer in telehealth simulation in their baccalaureate program. The COVID-19 CARES grant allowed further enhancement of their telehealth curriculum in collaboration with their Office of Technology and Innovation to include a 2-day onsite telehealth fair. The experience included didactic instruction as well as in-person simulation experiences using functional telehealth equipment and high-fidelity manikins. Loyola University has implemented a Primary Care Community Health Nursing Scholar program for undergraduate nursing students in their bachelor of science in nursing degree track. The University of Utah College of Nursing’s baccalaureate curriculum incorporates specialized primary care and telehealth content. The aim is “to prepare graduates from rural and underserved areas of Utah to practice at the full scope of their licenses as members and leaders of community-based primary care teams in order to increase access to care, with particular emphasis on chronic disease prevention and control.”

In response to pandemic-restricted clinical opportunities, several academic organizations were required to pivot in order to identify novel and innovative clinical experiences for nursing students. An example of COVID ingenuity was Johns Hopkins University School of Nursing’s partnership with the Baltimore Neighbors Network to develop a public health service-learning initiative. In addition to public and community health concepts, and social justice applications, addressing health disparities and incorporating SDOH were fundamental to the course revisions.

The most creative and revolutionary program design identified was the Community Health Nurse Scholars program, created by 5 executive nurse fellows in the Robert Wood Johnson Foundation program. The program occurs in 5 phases, starting with mentoring of middle school students and continues with curricular and career mentoring through the completion of a registered nursing program for low-income youth. The program focuses on developing nurses that can return to their communities or areas experiencing significant health disparities. The playbook outlines potential net earnings over the 6-year program and identifies the community benefits of this
philosophy. Although no program outcomes could be identified, the playbook for this unique program paves the way for other curriculum design ingenuity that addresses, not only workforce gaps, but also health disparities and other looming health care challenges.

IMPLICATIONS FOR NURSE EXECUTIVES

The call to action for nurse executives is 3-fold. First, we need to be bold and innovative, not only in supporting traditional pre-licensure clinical experiences in ambulatory, community health, and telehealth specialties, but also in partnering with our academic leaders in the design of new, creative educational approaches. This includes collaborative, interprofessional clinical experiences and robust expansion of informatics and other technology.

Next, we need to actively participate in developing and supporting programs that will lead to enhanced care in underserved communities and populations facing significant SDOH challenges. This begins by addressing the diversity, equity, and inclusion challenges for both nursing students and faculty.

Finally, we need to redesign clinical and academic preparation that allows “care everywhere,” reshapes our system from illness-based to health-focused, and demonstrates the nursing profession’s role in being the cure for what ails our US health care system. This is accomplished through the dissemination of best practices, networking across public and private sectors, and by supporting and participating in rigorous research endeavors.

CONCLUSION

The Future of Nursing 2020-2030 report and the AACN’s Essentials are the road maps to re-engineered academic preparation to align with ambulatory and telehealth nursing roles of the future. As noted in the Future of Nursing report, "Nurses have always been key to the health and well-being of patients and communities, but a new generation of nurse leaders is now needed—one that recognizes the importance of diversity and is able to use and build on the increasing evidence base supporting the link between SDOH and health status.” Through the disruptive innovation created by the COVID pandemic, it seems only fitting that the World Health Organization’s International Year(s) of the Nurse and Midwife honoring Florence Nightingale’s 200th birthday should lead our profession back to the fundamental tenets of population health, mitigation of SDOH, and holistic, health-preserving care for all. It has also provided the perfect opportunity for nurse executives to model Florence Nightingale’s inspiration, perseverance, and wisdom of leading the transformation of health care and in redesigning future academic preparation of our nurses.

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Sara Kollman, DNP, RN, NE-BC, is chief nursing officer in the Nursing Services/Clinical Excellence Department, Kaiser Foundation Health Plan Colorado, in Aurora, Colorado. She can be reached at sara.m.kollman@kp.org. Denise Braegger, MSN, MBA, RN, is director of professional practice and nursing quality, and Barbara Head, MSN, RN, is director of education and professional development for nursing, in the Nursing Services/Clinical Excellence Department, Kaiser Foundation Health Plan Colorado.

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