A Research Study to Define a Progressive Path Forward for Nursing That Elevates and Prepares the Profession to Lead Transformative Healthcare Change
ABSTRACT

The COVID-19 pandemic changed the practice and delivery of healthcare in fundamental ways, as nurses moved more to the center, stepping into new or non-traditional leadership roles and innovating entirely new models of care. In a series of studies, Johnson & Johnson, the American Nurses Association and the American Organization for Nursing Leadership set out to capture the critical lessons learned, so that they may be applied as the world moves into a new normal. An initial, quantitative phase of the research explored the impact of COVID-19 on the nursing profession from various viewpoints, including physicians, nurses and lay participants. A second, qualitative phase sought to listen closely to nurse leaders’ experiences and recommendations. This paper, the third of the qualitative series, is the result of listening sessions with 12 nurse leaders and nurse advocates; it focuses on the Workforce of the Future, including the changes that are needed to build a stronger, more diverse nursing workforce and to support resiliency and mental health, academic-practice partnerships, and population health. Findings are organized across individual, organizational, societal and policy levels. This and other recent research on the topic show a convergence of learnings as well as recommended approaches, including a focus on retaining the nursing workforce through educational and professional opportunities; cultivating a pipeline of new nurses across the spectrum of academic preparation and with the same level of diversity as the patient population; and building a workforce for tomorrow’s healthcare needs by planning at the national level. Complementary papers capture findings related to Care Delivery and Organizational Structure.

OVERVIEW

Throughout the COVID-19 pandemic, nurses around the world rose to meet its many clinical and logistic challenges. The pandemic itself, along with the social and economic sequelae, were impetus for significant shifts that exposed gaps, broke down longstanding barriers, shifted policies, spurred innovative thinking and approaches, and spotlighted nurses’ expanding roles at the center of patient care across settings.

In the context of these changes, Johnson & Johnson, the American Nurses Association and American Organization for Nursing Leadership partnered to conduct quantitative and qualitative research to evaluate the impact of COVID-19 on the nursing profession from various viewpoints; elevate the tremendous advancements and nurse-led innovations in patient care, which brought about improved processes, outcomes and progress toward stronger health systems; and identify a path forward that sustains and elevates that progress. A central finding in the original quantitative study was that while the remarkable shifts observed during the pandemic were partly driven by necessity, there were other elements, or “enablers,” at play, including the breakdown of longstanding barriers and policies that supported these shifts.

This qualitative paper, the third in the series, focuses on the Workforce of the Future, including the education nurses need to prepare to lead, innovate and collaborate to meet the needs of a diverse and growing population. It also aims to identify the specific elements needed to build a stronger and more resilient nursing workforce, forge effective academic-practice partnerships, and address population health issues, all with the goals of increasing health system efficiency and improving patient outcomes.

APPROACH

To identify the lessons learned and recommendations that provide traction for the improvements, a series of in-depth interviews were conducted with 12 nurses and nurse advocates who led or actively engaged on the front lines during the pandemic. Nurses were notable experts in their fields—chief nursing officers, thought leaders, frontline leaders and providers, and executives who represent best-in-class experiences from public and private sector healthcare delivery systems.

The findings are loosely organized according to a variation of the social-ecological model that includes four conceptual levels: individuals, organizational/system, society and policy. While some recommendations fit neatly into one level, there is often interplay, so that a given recommendation may require changes across multiple levels. Where appropriate, figures from the earlier quantitative study have been included throughout this paper where they align with the qualitative findings.

Please note that the findings outlined below are reflective of qualitative research and represent a composite of the key points made by the nurse leaders with whom we spoke.
1. KEY TAKEAWAY

Apply concerted, structured effort to support nurses’ mental health as a non-negotiable element of sustaining the workforce

- Trauma on the scale seen in the pandemic is nearly unprecedented: Nurses report feeling a loss of purpose as well as doubt about their own value, judgment, compassion, allocation of scarce resources and forced choices. These fundamental concerns may manifest as exhaustion, burnout and numbness to death.

- Compounding the mental health strain many nurses are feeling is that racism still exists, both in nursing education and in the workplace.

- Many nurses have not taken the time to heal or seek help—or are not being encouraged to do so by employers. Nurses worked tirelessly to meet organizational needs during pandemic; organizations must now recognize that if they don’t meet the psychological needs of nurses, they simply won’t be there.

- New nurses, who have limited prior experience from which to build resiliency, are at higher risk of leaving the profession. This must be addressed to limit the loss of investment in training new nurses if they are to leave quickly.

ENABLERS

- Broadening the definition of well-being to include psychological well-being is critical, as is addressing the stigma of asking for help. Seeking help must be framed as act of integrity, not of deficiency.

- Providing additional or requiring use of provided personal time, or simply lessening schedule burdens, can help support mental health, wellness and self-care.

- Offering workshops can help nurses reconnect with why they became nurses and strengthen connection to values and purpose. Spiritual, emotional and psychological work can also help nurses heal from trauma.

- Making mental health a competency (e.g., American Association of Colleges of Nursing) or building it into performance appraisals can encourage selfcare. Organizations can also provide positive incentives to seek care.

During COVID, the trauma continued day after day, month after month. The first step is to recognize it and, secondarily, address it by making sure nurses know what tools, support and resources are available to them. We have to pay very careful attention to the fact that nurses worked an amazing number of hours this past year to meet the needs of the organization and at some point, we have to recognize that if we don’t meet the psychological and emotional needs of the nurse, then that nurse is not going to be there.

Chief Executive Officer of a national nursing organization
David R. Marshall, JD, DNP, RN, FAAN, who is senior vice president and chief nursing executive at Cedars-Sinai in California, spoke about the importance of prioritizing nurses’ mental health, especially in light of the pandemic. “Post-traumatic stress may be something that exists for years to come,” said Dr. Marshall. “There was a concerning report that said that mid-career nurses were leaving the profession because of their pandemic experience—some permanently. If they leave and decide not to come back, how are we going to meet the needs of our patients?” Dr. Marshall discussed several initiatives Cedars-Sinai has implemented to support healing: For the leadership team, for instance, 10 people met in breakout rooms with spiritual care staff to guide conversation. “We used a set of questions from a trauma-informed care document available through the federal agency SAMHSA,” said Dr. Marshall. “We started out with the question, ‘what’s your authentic story about COVID?’” Participants were able to share their experiences, thoughts and fears. Other healing activities included writing and creative exercises, and just taking time to recuperate. “Some of our leaders have worked seven days a week for a few months straight,” said Dr. Marshall. “So just asking some of them to take some time off with their families was something we did.” He also noted that checking in with staff is crucial: “Different people have different coping mechanisms—some are stronger than others,” said Dr. Marshall. “Help your staff become aware of those people who don’t have the greatest coping skills and look out for the little signs—we don’t expect our staff to be able to manage post-traumatic stress disorder, but looking out look out for coworkers, asking them how they’re doing, and being generally interested in them is a way that we think we can help our workforce.”
2. KEY TAKEAWAY

Provide flexible career pathways that adapt to an increasing range of care needs, especially for mid- and senior-level nurses

- Career pathways must be flexible enough to keep nurses in nursing, even if not at bedside. A new narrative must underscore the reality that nurses can stay in the profession, if not in the same job. Opportunities in care-adjacent roles, such as administration, education, research, technology and beyond, should be encouraged.
- Support education advancement—with a recognition of the evidence of improved outcomes associated with baccalaureate-prepared nurses—but ensure that career progression does not always require more school. Retire the education-focused narrative, since it lacks inclusivity and implies patient care is not enough.
- The field must move toward flexibility in both education and professional development so every nurse can do more than one job.
- Magnet designation is well-documented to confer benefits to patients and nurses; it raises the bar on quality and outcomes and provides clear career pathways. Some organizations may emphasize baccalaureate-prepared hires (at the expense of those with lesser credentials), which may lead to unintended effects, including limiting opportunities for entry-level nurses and perpetuating bias in the nursing workforce.

ENABLERS

- Facilitating career options across the entire continuum will help the workforce reach its potential. This includes a range of educational and skill levels, applications and disciplines (from direct patient care to public health and from research to administration), and deliveries (from in-person to virtual).
- Building adaptability in practice is also essential. Chief nurses can encourage flexibility in their teams and build competencies on an annual basis. Part of this will be to create meaningful step-on, step-off points to enhance career options.
- Building a robust, balanced workforce that prioritizes patient outcomes and optimizes nurse credentialing is partly a function of bettering understanding the requirements of Magnet designation and engaging in candid conversations about organizational approaches to workforce goals. Hospitals, including those designated or aspiring toward Magnet status, should consider hiring across education levels with appropriate pathways for career growth.

Educator at an internationally recognized school of nursing

We have tended to focus on the supply side of the equation with less attention on the retention or sustaining of our workforce. There are some worrisome signals about nurses sustaining themselves in the profession that we have to take seriously and we have to understand these issues differently.
Yale New Haven Hospital’s Chief Nursing Officer, Ena Williams, MBA, RN, recalled that when new strategies were being implemented very quickly at the beginning of the pandemic, she noticed that staff nurses voices were not present, likely due to the focus on assigning staff to patient care. Ms. Williams recalls, however, that having frontline nurses help shape practice was an important part of the nursing culture and should be maintained even during a pandemic. “We have enculturated the environment as part of our Magnet and nursing professional governance culture that nurses must have a clear voice in their own practice. I made a decision that we would preserve the role of the staff nurse to ensure we were not making practice decisions without them being at the table,” said Ms. Williams. “The chair of the nursing professional governance coordinating council was freed up to devote her time to participating and being the voice and liaison of the staff nurse, as practice decisions that impacted them were being designed and developed...and so we could do rapid cycle adjustments when things were not working.”

A number of positive outcomes resulted, some regarding practice changes: “A clinical nurse posed the idea of having small whiteboards accessible inside the precaution room so communication could be had without compromising infection prevention measures and also decreasing the amount of PPE used,” said Ms. Williams. Another change had to do with streamlining meal delivery to reduce entry and exit into rooms, align it with medication administration and optimize freshness. A particularly important outcome of engaging staff nurses was the design of an entirely new interdisciplinary staffing model “by a group of multidisciplinary staff leaders, staff, and educators and managers,” said Ms. Williams. “Their focuses were, ‘how are we going to stratify our nurses, and place them in the best place to match both patient and clinician? How do we train and upscale them rapidly? What is the phased approach that we’re going to use so that we can rapidly respond?’ We published that article in the Voice of Nursing Leadership last year and we have continued to use that model. We will officially adopt that as part of our staffing guidelines for how we make sure that no unit is left behind and how we utilize our resources in an optimized way to care for patients.”
CHAPTER 3: WORKFORCE OF THE FUTURE

SYSTEM

Relates to the workplace, structures, policies that contain the work of nurses; also spans health systems and clinics, including colleagues, managers and leadership

1. KEY TAKEAWAY

Simultaneously address the pipeline of new entry and professional retention to ensure an ample and diverse nursing workforce

- There is a faculty shortage at present, exacerbated by inconsistent and sometimes onerous requirements to qualify faculty.
- The continuum of nurse talent and education must be enhanced, from high school and vocational training to associate, baccalaureate to advanced degrees in nursing.
- There must be greater investment in encouraging students into nursing pathways, particularly those from diverse communities. It is also important that diverse communities see themselves reflected in the nurses who care for them.
- Diversity at the leadership level is lacking: addressing this gap will help inspire new and diverse talent and provide a pathway for success.
- Remote education during the pandemic played a key role in preparing the new class of nurses, but presented new challenges to balance real-world and simulated experiences. Regardless of mode, education must not only support clinical skills, but also effective communication skills.

ENABLERS

- Investing in vocational training, free community college (in select states), and scholarships will facilitate the continuum in which every nursing role is essential: certified nursing assistant (CNA), associate degree-prepared (ASN), baccalaureate-prepared, and advanced practice registered nurses (APRN). “Flooding the entry” (CNA, licensed practical nurse and ASN) is one part of generating influx of new talent.
- Investing in holistic support for first-generation students with mentoring, housing and childcare will support success and make school logistically feasible for students with family or other commitments.
- Providing educational exposure and clinical experience in a range of clinical sites is key: after-hospital care, alternative care and in-home care, and screening at malls, head start, boys/girls clubs, homeless shelters and prisons. Creating clinical sites in rural areas could help students train, as could placing nurse-managed clinics in community colleges.

One of the things that we’re working on locally as an institution is providing free nursing assistant training programs for graduating high school students. They can take a six- to eight-week program at the hospital level and then come out and be a nurse assistant. They are able to work and go to school at the same time and make a livable income level, which is important because a lot of times, the students have to support the family.

Chief Nursing Officer/Chief Executive Officer of hospital
CASE STUDY
Supporting the “pipeline” of new nurses

New Orleans East Hospital and LCMC Health have been working with a local program to provide free nursing assistant training programs for high school graduates and under-employed individuals. “Upon successful completion of the program, the graduates are able to work in healthcare, specifically at New Orleans East Hospital, and make a livable income,” said C.J. Marbley, RN, the hospital’s Chief Nursing Officer. “These programs are funded through grants and donors.” In the future, he and his team hope to expand the program to high school seniors, who would take an eight-week program at the hospital level to prepare for an entry-level nurse assistant position. “Additionally, LCMC Health is offering 90 full scholarships per year for the next three years for Chamberlain University’s BSN programs,” said Mr. Marbley. “The students will have a flexible job schedule that allows them to take college-level classes at the same time. The programs are successful because they allow young people to support themselves—and often their families, too—by giving them a job today and growth toward a career over time. And these are programs in our community, for the benefit of it, too.”
2. **KEY TAKEAWAY**

Shift the paradigm of collaboration between academia and practice, as well as between providers, to cultivate the nursing workforce

- Partnerships between academia and practice have been important historically and will continue to be in the future. Expanding these collaborations to support the evolving workforce is key. Certain initiatives during the pandemic, including workforce expansion and contact tracing, could have benefited from even tighter partnerships.

- Academia and practice have the shared goal of supporting the next generation of nurses. Therefore, it is important to work together to determine best practices for preparing new nurses. This may involve determining the right incentives for each party, since students should be seen as assets, not additional work.

- Consider innovative, successful solutions from the pandemic: early graduation, concentrated skills development and enhanced on-the-job training. Work to build evidence regarding the benefits, or alternatives, to these education-to-workforce innovations.

- Inter-organizational collaboration must also be strengthened: the pandemic created a “transactional” attitude in nurse staffing (nurses moving to new organizations for better pay), which may have hurt morale.

**ENABLERS**

- Enhancing partnerships, including the successful collaborations with national nurse organizations, is critical. Early partnerships between employers and nursing programs strengthens ties and seamlessly prepares graduates for employment.

- Encouraging “think tank” discussions and summits will bring academia and practice together to work on their shared purpose, plans and needs. Including regulators and accreditors in the larger conversation will help bring about comprehensive solutions.

- Offering incentives and other strategies (including private sponsorships) to mentors and preceptors will ensure learning and clinical hour requirements are unwaveringly supported.

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**CASE STUDY**

Gaining experience to develop leadership skills

In discussing the importance of interdisciplinary education, President and Chief Executive Officer of the American Association of Colleges of Nursing, Deborah Trautman, PhD, RN, FAAN, recalled having had a nursing student who was assigned a rotation being a scribe at the Command Center. “I talked to her before she started, and she was convinced it was going to be the worst experience of her education. Well, I told her to call me about a week after she'd been working in that Command Center.” After that week, the student called Dr. Trautman with excellent news: She had learned volumes of interesting and practical information that she had never anticipated. “She learned about coordination and strategy and immediate problem-solving. Because of that the diverse skill set she had picked up and the flexibility she gained, she learned so much about nursing. All of this provided a foundation for her development into a good nurse—and she was able to make great contributions in that Command Center.”
The pandemic and a movement toward competency-based education, in my mind, are like a perfect storm, because as we become more proficient in competency-based education, we will be even more nimble for the next pandemic. Then, it’s not going to matter whether somebody is in their last semester; it’s what competencies have they demonstrated and are they ready to enter the workforce?

Chief Executive Officer of a national nursing organization

1. KEY TAKEAWAY

Build the nursing workforce to match tomorrow’s health needs rather than today’s—and account for expanding locations and methods of delivering care

- Delineation between healthcare, wellness and social care systems will become much more fluid in the coming years; the workforce must prepare for this. For instance, the workforce must meet the needs of the patient who requires social support, but not health support.
- Healthcare will not just take place in a hospital building: the Internet of Things, smart housing design, telehealth and novel care deliveries will sustain people in communities. But we must keep in mind that care will be a true continuum and we cannot reject one model for another.
- Long-term care workforce must be expanded, given the aging population and new models of delivery beyond acute care.
- As the pandemic has shown, health is complex and interconnected. From global health issues, like COVID-19 and future pandemics, to domestic public health issues, including nursing home care and mass incarceration, no topic can be viewed in isolation.

ENABLERS

- Taking advantage of the fact that there is a strong APRN pipeline will help expand care where needed.
- Forging partnerships with collaborators in other fields—architecture, technology—will be important as we design health communities and redesign what nurses do.
- Considering entirely new models (for instance, “Uber” nursing care could deliver care to the patient’s doorstep) will help propel healthcare and the workforce into the future.
CASE STUDY
Preparing future leaders

The National Black Nurses Association will host the Founders Leadership Institute at its annual conference, which will be attended by 40 early- and mid-career nurses who have demonstrated leadership potential in a number of ways. The goals of the gathering, said Executive Director of the National Black Nurses Association, Inc, Millicent Gorham, PhD (Hon), MBA, FAAN, are to cultivate professional development and create a network of experts, mentors and advocates. But most centrally, it aims to prepare nurses earlier in their careers to take the next steps along their leadership paths—whether this means moving toward the C-Suite or deanship, or mapping out a trajectory to serve on non-profit and corporate boards of directors. Dr. Gorham noted that attendees will focus on several key areas of leadership. “This includes being a great clinician,” she said, “but there are other things that you need to learn as a leader, for example, how to read a financial report, create a budget and raise money. It’s also about how to advocate for patients, for yourself and the profession. It’s the business of healthcare—not only within the hospital system, but beyond.
The pandemic taught us that we are only as healthy as each other. We’ve got to refortify our public health system. Murder is a public health issue, massive incarceration is a public health issue, nursing homes are a public health issue. And it’s about color, diversity and inclusion. You can’t separate them out. We want to say, ‘let’s do just that one,’ but it’s complicated and it’s integrated and we don’t have the privilege of separating it. We have the privilege of trying to understand how they’re integrated.

President and Chief Executive Officer of a national nursing organization and former federal deputy assistant secretary for health

2. KEY TAKEAWAY
Bolster nurses’ agency and vital role through greater recognition and rewards

- Organizations must hear nurses’ needs and offer comprehensive support for their nursing staff. Existing workforce issues, including schedule stress, administrative burden, perceived value and mental health, were amplified during the pandemic. To reduce attrition, organizations must embrace and champion nurses’ agency and importance as key team members.
- Physicians are generally still not valuing nursing sufficiently; nurses are aware of and feel this. Physician respect for nurses is higher in states where nurses are able to operate at higher end of degree, with greater autonomy and decision making.
- Enhancing diversity is important, but diversity alone isn’t enough—the goal must be full inclusion, with equal and regular contributions from all, all the way up to the C-Suite.

ENABLERS

- Publishing a hospital ranking of how nurses are treated—a “Valuing Nurses Index”—could inspire healthy competition and be used as an additional proxy of hospital characteristics. The scoring system must be clear enough that hospitals know exactly what to do to improve their scores. Additionally, employing a “public relations” campaign could help change stakeholders’ (consumers’, physicians’, policymakers’, etc.) attitudes toward nursing.
- Implementing effective, research-based organizational models will enhance nurse well-being and improve patient care (e.g., relational leadership across the organization and “risk-based staffing” based on patient risk for adverse events). The improved outcomes quantification that now exists can help measure success.
- Facilitating open conversations about race must be continued by national organizations. Employers should implement behavioral strategies that allow employees to have dignity while confronting their own biases.

CASE STUDY
Leveraging the profession’s high trust to support public health

Beverly Malone, PhD, RN, FAAN, the President and CEO of National League for Nursing, noted that while nursing has been a respected and trusted profession historically, the public has embraced it even more since the pandemic—and that this platform can be used to connect with communities and improve public health. “Nurses have been the most trusted profession for the past 19 years,” said Dr. Malone. “A Gallup poll found this and a Harris poll echoed it, with additional data from a group called Nurses Everywhere. We have a very important platform and position to help the community, individuals, families and the world.” She underlined that while the pandemic brought out a clear issue of hesitancy, regarding the vaccine and other areas, nurses have the capacity to help address these hesitancies and support public health over the long-term. “There’s always been a hesitancy around vaccines—whether it’s measles-mumps vaccine or others, there is a hesitancy around vaccines and the side effects—but it’s also other precautions, like masks, social distancing, and hand washing. Nurses stand in that unique position to be the reassurances to the public. It’s about understanding more how nursing fits into reassuring the public that healthcare is there for them.”
POLICY
Includes rules and regulations, public and private, that enable or limit practice at all levels: organization, local, state and federal

In terms of work settings, very often policy is a barrier to what the nurse can or cannot do within a particular setting. I was a chief nursing officer for many years in several different hospitals and, very often, it was the hospital policy that was the greatest barrier that impeded an APRN from practicing to the top of license for which they had been perfectly, absolutely prepared to take on in their training and in their licensure.

Chief Executive Officer of national nursing organization

1. KEY TAKEAWAY
Revamp education to reverse faculty shortages and other public and organizational policies that inhibit workforce development

- State-based variation in nursing school faculty requirements, sometimes onerous or time-consuming, leave staffing gaps. Without faculty, there is a limit to the number of students who can enroll in school, participate in clinical experiences and gain access to diverse mentors.
- Community college-prepared nurses must have a broader range of clinical site exposure than is currently offered.
- Simulations are seen as effective tools to prepare rising nurses for professional flexibility, but are restricted by current guidelines that limit their use.
- Public health funding should be allocated to make jobs more appealing to those considering a career in public health nursing but who are concerned about finances.

ENABLERS
- Addressing regulations to allow more training simulations will help prepare nurses for additional areas. Outcomes research suggests that a greater percentage of simulations than some states allow is acceptable.
- Solidifying relationships between academia and practice can facilitate cross-talk and sharing of needs and plans.
- Advocating for policies—public and organizational—related to clinical site experience may include innovative options for siting, changing oversight requirements and easing requirements for adjunct staffing.
- Supporting federal policy (through the Department of Education) that recognizes and promotes competency-based degree attainment programs will create access to advanced degree pathways that foster nurses’ ability to function at the top of their preparation.
Case Study
Embracing technology to expand educational opportunities

Molly K. McCarthy, MBA, RN-BC, is National Director, US Health Providers & Health Plans Industry Team at Microsoft US Health & Life Sciences, which assisted a midwestern university nursing school in setting up “mixed reality” simulations to train nursing students during the pandemic. “If we cannot get these students in the classroom, what are we going to do?” she recalled being the critical question at the time. “To some extent there weren’t any other alternatives [and] there wasn’t time to do a proof of concept, a three-month study to see the impact.” But without other options, the school decided to move forward and develop and implement the training system: in it, students wear a virtual reality headset while working with a mannequin to learn procedures, including placing a urinary catheter or a central line, or starting an IV. Written steps or instructional videos appear on the screen to instruct students as they work. Students can do the training from a lab or even from their homes. The school plans to continue the method even after the pandemic is over, to augment their teaching capabilities.
The issue of fragmentation is exceptionally important. In the United States, there is a segmentation through specializations, as well as through levels of practitioner. We actually need to conduct a workforce planning model that embraces support workers, licensed practical nurses, associate degree nurses, baccalaureate-prepared and higher levels of preparation. We need to see it as a continuum where people can be bridged across that entire continuum to reach their maximum potential. It requires that we plan, educate and advocate for the entire continuum of nursing practice, not for individual levels of nurse.

**Chief Executive Officer of a national regulatory organization**

### 2. KEY TAKEAWAY

**Address workforce planning at a national level to prepare for the future of healthcare**

- Reignite recommendations in the Affordable Care Act to drive conversation and policy to develop a national workforce plan.
- Create consistency at the national level: for instance, standardize what advanced practice looks like across states, and build the infrastructure to support it; address the patchwork of supervision requirements that currently exist.
- Public health is critically important, but the system has become fragile. The public health workforce and funding must be refortified on the national level.
- Bring together the full range of health providers—spanning doctors, nurses, social services and community volunteers—to develop a plan nationally for providing the full continuum of patient care.
- Anecdotal evidence suggests changes to ratios during the pandemic allowed for team-based practice at top of license and provision of 24-hour care to twice the number of patients. This specific change led to a dramatic rise in patient satisfaction scores in responsiveness, medication timing and “nurses listening to my concerns.”
- A number of countries give nurses prescription authority: Canada, UK, Ireland, and multiple countries in Africa, among others. A Spanish Nursing Council study found that after pharmacists, nurses rank second (physicians, third) in pharmaceutical preparation.
- Wage wars create tension between organizations, as well as between nurses, and must stop.

### ENABLERS

- Coordinating across organizations and fields will enable key players to organize thinking, publicize needs and plans, and advocate for policy changes at the national level.
- Expanding existing nurse corps that can be deployed during crises and not-for-profit nurse traveler programs will help prepare for inevitable situations, including the next pandemic.
- Following successful scope-of-practice changes both from the pandemic and other countries will provide a research base on which to base advocacy efforts for meaningful changes to US policy.
- Emphasizing nurse contributions will help policy makers, administrators and health financers (private and public insurers) understand and appreciate the field and its potential. The strongest examples of successes can then be replicated.
Within workforce planning, an important element discussed was the need to embrace the most effective staffing models. Chief Nurse Executive for Emory Healthcare, Sharon H. Pappas, RN, PhD, NEA-BC, FAAN, recounted research she and her colleagues had carried out on the value of staffing according to patient risk. “In the study, which is published in *Nursing Economics*, we actually measured the patient’s risk for an adverse event and then we staffed based on that risk—essentially, you apply nursing resources in order to mitigate the risk.” The model was associated with several promising outcomes for the patient, including reduced risk for a number of adverse events (e.g., patient falls, catheter-acquired urinary tract infections), along with reduced end-of-shift over-time for staff, and improved financial performance for the hospital measured as direct cost per episode of care for the hospital. “It worked,” said Dr. Pappas. “It was an effective model for nurse staffing, which in my view is much more than a head count. Organizations can leverage the knowledge of nurses to achieve both positive clinical and financial outcomes.” In the end, she said, it comes down to both how nurses are utilized and their sense of agency. “It’s the context of the work environment and the support of nurses’ roles in decision making,” said Dr. Pappas. “It’s the nurse’s professionalism and autonomy. Once you get that secured, then there will be great work done.”
Listening to nurses, nurse leaders and nurse advocates illuminated actions that were emblematic of nurse-led innovation that transformed patient care and health systems during the pandemic. This list of promising practices captures the tangible actions that emerged from the research and that can be continued or expanded to sustain the progress made during the COVID-19 response. These examples are not meant to be comprehensive of nurse-led innovation related to workforce planning, but rather to start a catalog, encourage creativity and action, and open a discussion to further recognize the remarkable efforts evident in healthcare since early 2020.

- **Used simulations and augmented or virtual reality to train nursing students**
- **Placed nursing students at non-traditional clinical sites, including sub-acute and long-term care facilities and public health, retail and community clinics**
- **Raised internal and external visibility of nurse leaders who represent diverse backgrounds through channels such as videos shared on social media, podcast interviews, citations and photos in mass media articles, presentations at nurse events and conferences, etc.**
- **Cultivated and strengthened relationships between academic deans and practice leadership, facilitating rapid transformation in virtual education**
- **Offered enhanced incentives for clinical preceptors/supervisors, including salary sharing with private partners, educational grants, enhanced job titles and credit toward career progression**
- **Created a clinical academy that addressed cultural pain points of fellowship training and allowed for quicker activation of new graduates to specialized clinical practice**
- **Gave scholarships for baccalaureate nursing education, particularly for students who reflect diverse backgrounds or identities, and fill needs gaps**
- **Provided free programs to high school students and affordable (or, in some states, free) community college programs to prepare nurse assistants and entry-level nurses**
- **Developed early-graduation programs that concentrated on specific competencies needed among nursing staff during the pandemic**
- **Committed to addressing racism in the nursing profession through a commission led by the American Nurses Association, National Black Nurses Association, National Coalition of Ethnic Minority Nurse Associations, and National Association of Hispanic Nurses**
- **Explored evidence on patient-staff ratios, including committees in Colorado that show engagement matters more than headcount and articles in nursing economics journals focused on risk-based staffing**
- **Created focused competencies to develop nurse resiliency and destigmatize mental health through professional associations, such as AACN**
- **Mandated use of paid time off, limiting overtime scheduling and providing paid time for mental health services**
- **Restricted use of contract (“travel”) nurses to reduce wage competition among salary nurses**
As partners, Johnson & Johnson, American Nurses Association and the American Organization for Nursing Leadership, approached this research to illuminate how nurse-led innovation during the pandemic helped pave the way for lasting changes and to identify needs for the workforce of the future. The findings of this and other recent research on the topic converge in important ways and offer myriad opportunities to build a stronger workforce of the future and strengthen health systems across the country and the globe. This research identifies several priorities:

- Retaining the nursing workforce should be a top priority moving forward, with health systems actively tapping into nursing expertise and skillsets to address gaps, expanding the roles nurses play across the healthcare continuum, bolstering nurses’ skills through broad educational opportunities, and creating more nontraditional professional pathways within nursing. Part of maintaining the workforce will be prioritizing nurse well-being and mental health.

- Cultivating the “pipeline” of new nurses is important in building the workforce, and should range from entry-level to highly-skilled nurses from diverse backgrounds that reflect the patient population. Modes of care should span community care (including public health and schools), virtual care and beyond. Academia and practice should actively work together to identify priority educational experience areas across a wide variety of treatment settings to ensure the next generation of nurses is well-equipped to meet evolving healthcare needs.

- Building a workforce for tomorrow’s needs will involve planning at the national level. There will be an increasing need for interdisciplinary plans that place nurses working alongside physicians, public health experts, social service providers, and payors to provide a continuum of care for patients across the country.

METHODOLOGY NOTE
Twelve in-depth interviews were conducted with nurse leaders identified by the program partners. Each 30-minute interview was professionally moderated by APCO Worldwide between April 7-22, 2021 using a standard discussion guide.

The August 2020 survey was conducted online from August 7-30, 2020 and included 4,000 US-based respondents, including 1,000 nurses (inclusive of 236 APRNs), 250 nursing students, 500 physicians, 250 healthcare administrators and 2,000 of the general population and was fielded by the research firm Ipsos.

DISCLAIMERS
The responses above reflect the opinions of the individuals interviewed and do not necessarily represent the views of Johnson & Johnson.

Some of the views and opinions expressed within this document may not reflect the position or policy statements of the American Nurses Association. If you have questions or are looking for additional materials please visit: www.nursingworld.org.

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