Enhancing the patient and provider experience through telehealth

CE
1.0
CONTACT HOUR

By Joyce Sensmeier, MS, RN-BC, FHIMSS, FAAN

Our healthcare ecosystem is experiencing numerous challenges related to the impact of the COVID-19 pandemic. Safety precautions such as social distancing, frequent handwashing, disinfecting surfaces, and other necessary safeguards can inflict barriers, creating an atmosphere of fear and distrust that interrupts our usual heath maintenance habits. In a recent poll, nearly half of the respondents reported delaying medical care due to the coronavirus outbreak in spite of the safety precautions that health systems are taking.[1] Forty percent of those surveyed also indicated that stress related to the pandemic has negatively affected their mental health. Delaying medical care can ultimately delay diagnosis and treatment, which may lead to compromised health outcomes. Fortunately, telehealth has been waiting for this opportunity to demonstrate its value for providing virtual, safe, and effective care.

Telehealth defined

According to the Healthcare Information and Management Systems Society (HIMSS), telehealth is defined as a "broad variety of technologies and tactics to deliver virtual medical, health, and education services."[2] Today, telehealth is used to provide such services as community-based care for chronic conditions, mental health counseling, and palliative care.[3] Innovative telehealth strategies are also used for primary care and in-home patient monitoring. This practice has begun to replace some in-person visits and become an increasing part of routine care.[4]

HIMSS eHealth Trend Barometer explored telehealth maturity in Europe at the beginning of the COVID-19 outbreak, highlighting the impact of the pandemic on telehealth adoption.[5] According to the study, 93% of health facilities had implemented at least one type of telehealth service.

The percentage by type of patient condition identified as best suited for telehealth services includes:
• chronic diseases (74%)
• medication therapy and counseling (47%)
• prevention and wellness (46%)
• acute care (42%)
• behavioral/mental health (35%)
• cancer-related conditions (34%)
• skin diseases (31%)
• other (12%).

The ability to leverage telehealth as a vehicle to effectively manage chronic diseases holds promise.

Telehealth modalities

Telehealth services enable real-time exchange and can serve as a substitute for an in-person encounter.[6] Telehealth can be delivered via live video, which enables two-way interaction between a patient and provider using audiovisual telecommunications technology. Virtual visits can take place from any private patient location to any secured clinician location wherever there's an internet connection.[7] However, telehealth may not be feasible for people who have limited access to broadband internet or for clinics that don't have the necessary infrastructure.[8]

Remote patient monitoring (RPM) uses digital technologies to collect health data from individuals in one location and electronically transmit that information securely to healthcare providers.[6] This method of telehealth enables patients to be treated and tracked using wearable tools and smart home systems. RPM technologies, which track metrics such as BP, weight, and oxygen saturation, are frequently used in combination with videoconferencing, allowing for two-way communication between a patient and provider. Home monitoring kits can include sensors and automatic lights that monitor the individual's behavior, alerting the caregiver if an unsafe condition occurs. Store-and-forward technologies allow for the electronic transmission of digital images, documents, and pre-recorded videos through secure email communication.

Due to the COVID-19 pandemic, there's an increasing use of telehealth for mental and behavioral health services. Virtual counseling visits provided by clinicians over the internet can improve access and outcomes by enhancing patient convenience while offering a higher degree of privacy than in-person visits. In April 2020, 34% of all telehealth claims were related to a mental health diagnosis.[9]

Houston-based AccessHealth quickly scaled up their telehealth offerings for mental health services in response to COVID-19, increasing their capacity by 10%.[10] They implemented the following telecommunication services and devices to enable telehealth services:
• telecommunication and broadband connectivity services, including voice and internet connectivity
• information services, including RPM and patient-reported outcome platforms; store-and-forward services, including transfer of patient images and data for interpretation by a physician; and services to provide video consultation
• internet-connected devices and equipment to provide connected care services at home, including tablets and smartphones or connected devices such as BP monitors and pulse oximeters
• telemedicine kiosks/carts for each healthcare provider site.

Nursing's role

The National Sample Survey of Registered Nurses (NSSRN) provides educators, health workforce leaders, and policy makers with key details and developments of the nursing workforce supply.[11] This instrument gathers data from participants with active RN licenses from all US states, offering a comprehensive look into the RN workforce. In the 2018 NSSRN survey, it was reported that 32.9% of nurses use

telehealth technologies in the workplace. (See *Figure 1.*) Of those nurses, 50.3% reported using some form of telehealth in their primary nursing position. Survey participants were also asked what type of telehealth they used as part of their work. Provider-to-provider consults accounted for 54.4% of telehealth use and RN-to-patient direct calls accounted for 49.2%. (See *Figure 2.*)

Nursing practice is well-positioned to develop and deliver telehealth services. There's an urgent need for nurses to embrace telehealth services to ensure that individuals receive the care they need at the optimal place and time. Nurses should work alongside their interprofessional colleagues to strengthen the infrastructure of clinical practice using telehealth while optimizing healthcare efficiencies to improve health outcomes.[12]

What are the benefits of telehealth?

The use of telehealth is rapidly advancing, and its value is being recognized. A recent report by Frost and Sullivan outlines some of the key drivers that are propelling telehealth:[13]

• Telehealth removes the need for physical contact between patient and provider—a key benefit during the COVID-19 pandemic.
• Virtual visits are easily scheduled, and more patients can be seen in a day.
• Medications can be electronically prescribed and tracked over time.
• Tools to help a patient self-examine during or before a virtual visit are becoming available, including smart mobile devices, such as phone cameras, glucome-

Figure 1: Telehealth in the workplace[11]

Yes, 32.9%

No, 67.1%
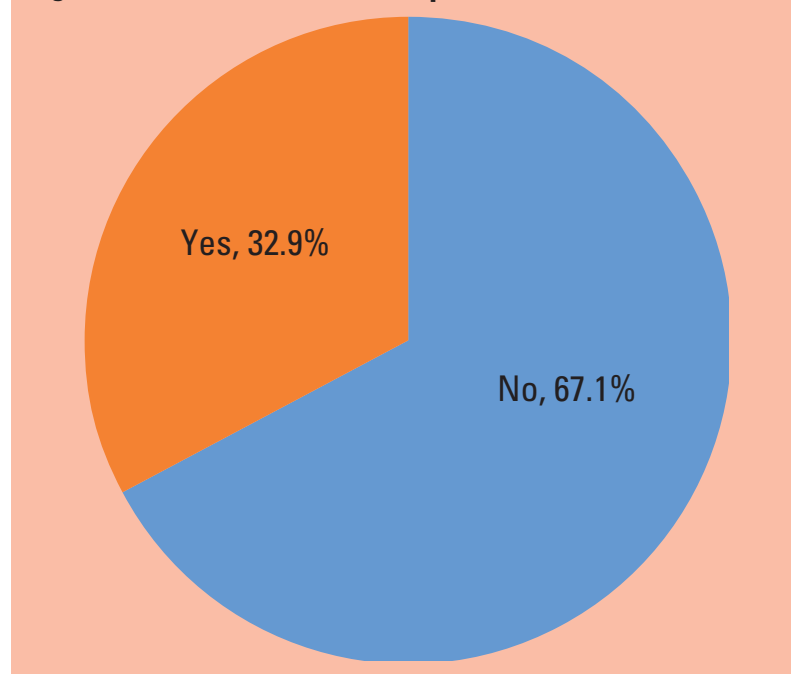
ters, and pulse oximeters.
• Patient-generated health data can be gathered, uploaded to an electronic health record (EHR), and shared with a specialist for further review and follow-up.
• Telehealth can provide essential services to patients who reside in rural areas that don't have enough primary care physicians or specialists.
• Primary care physicians and specialists can consult with each other regardless of their location.

During infectious disease outbreaks, telehealth's key strength may lie in its ability to keep healthy people safe. Patients can easily access clinicians and reliable health information while protecting healthcare workers, avoiding crowded healthcare settings, or using public transit.[14] Digital health tools are also used to map the spread of an outbreak, identify hot spots, and intelli-

gently track and monitor cases in real time. In the case of COVID-19, conditions are changing constantly; providers who monitor the virus' spread can continually receive the necessary intelligence to update their guidelines and apply best practices.

What are the challenges of telehealth?

Nurses are experiencing changing practice considerations during the COVID-19 pandemic. There's a learning curve, and the navigation of telehealth can be time-consuming.[15] Most nursing programs don't include the use of telehealth capabilities, and the thought of adding another technology to a nurse's workload can be daunting. However, as telehealth becomes a standard of care, faculty will make it a part of the curriculum and clinicians will learn to adopt it.[16] As with any

emerging technology, improvements are necessary to make telehealth services more accessible, including seamless EHR integration. All EHR systems should optimally be able to share information at the point of care. If the telehealth platform is outside the EHR, it will disrupt workflow and compromise follow-up, such as automatically providing electronic discharge instructions or a visit summary.

Patient acceptance of telehealth services can also present a challenge. Although many people are familiar with video-chatting software, clinicians say virtual care requires an additional layer of expertise, particularly with patients in their own homes as opposed to in-person services.[17] Preparing patients to use the necessary technology is essential, including instructing them to be in a quiet place for their visit if possible.

Researchers conducted a cross-sectional study using data from the 2018 National Health and Aging Trends Study.[18] The study, which looked at data from adults older than age 65, found that 38% of the 13 million seniors in the US weren't ready for virtual visits, mainly because of inexperience with technology. Challenges included difficulty hearing on the phone, issues with speech or making oneself understood, suspected dementia, visual difficulties, lack of access to an internet-connected device, and lack of familiarity with technology. Study authors noted that offering clinic or home visits remains essential for these individuals.

The lack of broadband access can also become a barrier, especially in rural areas. Without reliable internet service, patients are, in effect, being left behind.[16] Connectivity issues are disruptive and may interrupt the telehealth visit or compromise the visual display. Both providers and patients are frustrated when time is spent on troubleshooting technical challenges rather than effectively delivering and receiving care. The US Department of Agriculture, the Department of Health and Human Services (DHHS), and the Federal Communications Commission are in the process of forming a task force to begin to break down barriers related to expanding rural healthcare and addressing broadband coverage.[19]
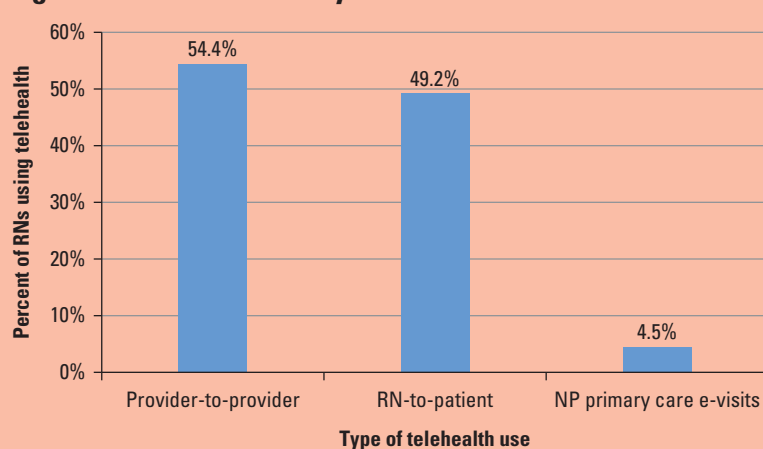
The impact of COVID-19

There has been a dramatic increase in the use of telehealth services due to the COVID-19 pandemic. According to the DHHS, nearly half (43.5%) of Medicare primary care visits in April were provided through telehealth compared with less than 1% (0.1%) in February before the pandemic.[20] In the last week of April, nearly 1.7 million beneficiaries received telehealth services, according to the Centers for Medicare and Medicaid Services (CMS).[21] Telehealth visits have also increased among Americans age 50 to 80, with 30% of respondents to a recent survey saying they had participated in a telehealth visit, up from 4% in May 2019.[22]

Before the COVID-19 pandemic, NYC Health + Hospitals served more than 1 million patients annually while providing fewer than 500 telehealth visits monthly.[23] Once the pandemic struck, the health system rapidly turned to telehealth solutions to help maintain existing operations while responding to urgent clinical demands. They performed a telehealth survey to assess patients' readiness for virtual care, finding that most patients had access to a mobile device and showed interest in receiving telehealth services.

The health system established a telehealth rapid response team consisting of representatives

Figure 2: Telehealth use by RNs[11]

Percent of RNs using telehealth — Type of telehealth use:
- Provider-to-provider: 54.4%
- RN-to-patient: 49.2%
- NP primary care e-visits: 4.5%

Participants in this study had the option to select all that applied for this question.

from information technology, EHR, and clinical leadership to guide strategy and allocate telehealth staff resources and hardware. Beginning in March 2020, they implemented virtual care platforms; nearly 83,000 telehealth visits were provided in 1 month. These telehealth services continue to provide support for patient-family communication, post discharge follow-up, and palliative care for patients with COVID-19. Their focus moving forward is on determining the right combination of virtual and in-person care to ensure that the human connection is preserved while leveraging this technology.

Federal and state regulations related to telehealth were relaxed in response to COVID-19 and private payers now have access to reimbursement for telehealth services.[24] Many insurers have waived fees to encourage its use. The federal government also relaxed restrictions on the use of telehealth in its Medicare program, offering coverage for people age 65 and older for the first time. This policy change has resulted in a surge in the number of Medicare patients using telehealth services.[20]

In May 2020, an online survey of 1,000 patients was conducted by independent research company Wakefield Research on behalf of Kyruus.[25] Survey respondents represented four age groups (18 to 34, 35 to 49, 50 to 64, and 65+ years) who participated in at least one telehealth visit between February and May 2020. Patient satisfaction was high, with over 75% of respondents reporting that they were very or completely satisfied and over half agreeing that tele-

Real-world case study

More than 2 years before the COVID-19 pandemic, Dr. Russell Libby, lead physician at a pediatric group practice in Fairfax, Va., implemented a telehealth platform to help improve the patient care experience.[28] Initially, the policies and practices for telehealth that he implemented were used infrequently, but that has changed since the COVID-19 pandemic. The telehealth platform is pediatric-focused and enables an encounter similar to an in-person visit, without the stress and risk of travel or increased wait times in the clinic. He notes that it's helpful to see the patient in his or her home environment, which may also include parents, a guardian, and even siblings. This capability gives clinicians an opportunity to see their patients' home surroundings and offer preventive advice on safety and other issues that may be evident. The integrated technology of the platform makes it easy to make referrals and access the EHR. The platform also allows patients to upload pictures or videos that can help with the exam.

In 1 month, telehealth visits at the practice have climbed from around 10 visits each week to nearly 300 per week. The group practice has been able to adjust work hours for its clinicians and expand the available hours for patient access. Today, telehealth visits are extremely well received by their patients, who can more easily arrange virtual appointments that fit into their schedules. Physicians in the group practice have also had a positive experience embracing telehealth as an option for care, and they plan to continue expanding telehealth services. Overall, Dr. Libby believes that the telehealth platform provides his practice with the tools necessary to deliver high-quality care while alleviating the anxiety and hassle patients and their parents may experience when scheduling in-person visits in the office.

health visits improved their level of satisfaction with their provider. Due to their positive experience, nearly three-quarters of respondents wanted telehealth to be part of their care in the future. And notably, 50% indicated that they would be willing to change providers to continue telehealth visits on an ongoing basis. This positive response should encourage healthcare organizations to include telehealth visits as a critical service moving forward.

Ensuring health equity

Health systems have rapidly adopted telehealth not only for COVID-19-related care, but also for chronic disease management. Therefore, telehealth strategies should be accessible to those with the greatest need and effectively targeted to that population.[3] A primary goal of telehealth should be to ensure equity in access and

optimal outcomes for all vulnerable groups. Without proactive efforts to ensure health equity, the wide-scale adoption of telehealth may increase disparities in healthcare access for at-risk populations with limited digital literacy or access, such as those in rural locations, racial/ethnic minorities, older adults, and those with low income or minimal health literacy.[26]

Four key actions are recommended for clinicians and health system leaders to minimize health disparities through the use of telehealth services:[26]
• exploring potential disparities in access to telehealth
• mitigating barriers to digital literacy and the tools needed for engagement in video visits
• removing health system–related barriers to accessing video visits
• advocating for policies and infrastructure that facilitate equitable telehealth access.

Taking these actions will help health systems minimize the risk of implementing telehealth services that leave out vulnerable populations.

Future outlook
Healthcare providers and systems envision the use of telehealth services continuing to be prevalent after the COVID-19 pandemic resolves. Patients may use telehealth for annual visits or to follow up with a physician after a test or procedure. Secure messaging through a portal can provide a vehicle for answering questions, requesting prescription refills, or remotely monitoring chronic health problems. More patients with diabetes could monitor their blood glucose at home, get blood drawn at a lab only when needed, and schedule their appointment for once a year instead of every 3 to 6 months.

CMS officials plan to issue a proposed rule that will continue some of the regulatory flexibilities enacted during the public health emergency to allow for reimbursement of telehealth visits, including ED visits, nurse consultations, and speech and occupational therapy.[27] Findings from a survey of 500 US healthcare leaders conducted at the end of May 2020 indicate that before COVID-19, 80% of hospitals provided less than 10% of their care via telehealth. Today, 85% of those executives cite virtual care as a key technology solution.[9] The potential is great for telehealth to reduce the burden of in-person visits in terms of time, resources, and costs to both patients and their providers.

Telehealth isn't a new technology; however, current drivers, including the COVID-19 pandemic, regulatory changes, new reimbursement models, and advances in mobile technology, have rapidly increased its adoption. Nurses must traverse the learning curve to leverage innovative telehealth services so patients can receive optimal care when and where they need it. Embracing telehealth as an integral part of healthcare delivery will improve the patient and provider experience, deliver safe and effective care and, ultimately, lead to improved health outcomes. **NM**

REFERENCES
1. Lawrence E. Nearly half of Americans delayed medical care due to pandemic. Kaiser Health News. 2020. https://khn.org/news/nearly-half-of-americans-delayed-medical-care-due-to-pandemic.
2. Healthcare Information and Management Systems Society. *HIMSS Dictionary of Health Information and Technology Terms, Acronyms and Organizations.* 5th ed. Boca Raton, FL: CRC Press; 2019.
3. Quinn WV, O'Brien E, Springan G. Using telehealth to improve home-based care for older adults and family caregivers. AARP Public Policy Institute. 2018. www.aarp.org/ppi/info-2018/using-telehealth-to-improve-home-based-care-for-older-adults-and-family-caregivers.html.
4. Associated Press. Telemedicine shines during pandemic but will glow fade? STAT. 2020. www.statnews.com/2020/08/11/telemedicine-shines-during-pandemic-but-will-glow-fade.
5. Healthcare Information and Management Systems Society. eHealth study: non-clinical telehealth services are most prevalent, but COVID-19 accelerates new trends. 2020. www.himss.org/news/ehealth-study-non-clinical-telehealth-services-are-most-prevalent-covid-19-accelerates-new.
6. Center for Connected Health Policy. About telehealth. www.cchpca.org/about/about-telehealth.
7. Siwicki B. Cloud-based telehealth, linked with Epic EHR, helps one hospital scale up virtual care. Healthcare IT News. 2020. www.healthcareitnews.com/news/cloud-based-telehealth-linked-epic-ehr-helps-one-hospital-scale-virtual-care.
8. UCLA Latino Policy and Politics Initiative, UCLA Health Center for the Study of Latino Health and Culture. Telehealth and COVID-19: policy considerations to improve access to care. 2020. https://latino.ucla.edu/wp-content/uploads/2020/05/Telehealth-COVID-19-Report.pdf.
9. Leventhal R. Telehealth claims up 8,300% in April year-over-year research shows. *Healthcare Innovation.* 2020. www.hcinnovationgroup.com/population-health-management/telehealth/news/21145350/telehealth-claims-up-8300-in-april-yearoveryear-research-shows.
10. Siwicki B. AccessHealth uses telemedicine to boost mental health visits by 10% during COVID-19. Healthcare IT News. 2020. www.healthcareitnews.com/news/accesshealth-uses-telemedicine-boost-mental-health-visits-10-during-covid-19.
11. US Department of Health and Human Services, Health Resources and Services Administration, National Center for Health Workforce Analysis. *Brief Summary Results: 2018 National Sample Survey of Registered Nurses.* Rockville, MD: US Department of Health and Human Services; 2018.
12. Fathi JT, Modin HE, Scott JD. Nurses advancing telehealth services in the era of healthcare reform. *Online J Issues Nurs.* 2017;22(2):1-12.
13. Frost & Sullivan. Telehealth—a technology-based weapon in the war against the coronavirus, 2020. 2020. https://store.frost.com/telehealth-a-technology-based-weapon-in-the-war-against-the-coronavirus-2020.html.
14. Brodwin E. Telehealth can help fight the novel coronavirus, but US challenges could limit its potential. STAT. 2020. www.statnews.com/2020/02/28/coronavirus-telehealth-digital-health-us-hospitals-companies-face-challenges.
15. Rosa WE, Schlak AE, Rushton CH. A blueprint for leadership

during COVID-19. *Nurs Manage.* 2020;51(8):28-34.

16. Jercich K. Telehealth seems here to stay—so how can it be improved? Healthcare IT News. 2020. www.healthcareitnews.com/news/telehealth-seems-here-stay-so-how-can-it-be-improved.

17. Lovett L. JAMA study warns telemedicine not suitable for 38% of patients over 65. MobiHealth News. 2020. www.mobihealthnews.com/news/jama-study-warns-telemedicine-not-suitable-38-patients-over-65.

18. Lam K, Lu AD, Shi Y, Covinsky KE. Assessing telemedicine unreadiness among older adults in the United States during the COVID-19 pandemic. *JAMA Intern Med.* 2020;e202671.

19. Lee L. Trump signs rural healthcare and prescription drug executive orders. Brownfield Ag News for America. 2020. https://brownfieldagnews.com/news/trump-signs-rural-healthcare-and-prescription-drug-executive-orders.

20. US Department of Health and Human Services. HHS issues new report highlighting dramatic trends in Medicare beneficiary telehealth utilization amid COVID-19. 2020. www.hhs.gov/about/news/2020/07/28/hhs-issues-new-report-highlighting-dramatic-trends-in-medicare-beneficiary-telehealth-utilization-amid-covid-19.html.

21. Sokol E. CMS proposes expanding telehealth reimbursement after COVID-19. mHealth Intelligence. 2020. https://mhealthintelligence.com/news/cms-proposes-expanding-telehealth-reimbursement-after-covid-19.

22. Pecci AW. Telehealth visits skyrocket among Americans age 50–80. Health Leaders. 2020. www.healthleadersmedia.com/telehealth/telehealth-visits-skyrocket-among-americans-age-50-80.

23. Lau J, Knudsen J, Jackson H, et al. Staying connected in the COVID-19 pandemic: telehealth at the largest safety-net system in the United States. *Health Aff (Millwood).* 2020;39(8):1437-1442.

24. Center for Connected Health Policy. Health coverage policies in the time of COVID-19. 2020. www.cchpca.org/resources/covid-19-telehealth-coverage-policies.

25. Kyruus. Patient perspectives on virtual care. 2020. www.kyruus.com/2020-virtual-care-report.

26. Nouri S, Khoong EC, Lyles CR, Karliner L. Addressing equity in telemedicine for chronic disease management during the COVID-19 pandemic. NEJM Catalyst.

2020. https://catalyst.nejm.org/doi/full/10.1056/CAT.20.0123.

27. Centers for Medicare and Medicaid Services. Trump administration proposes to expand telehealth benefits permanently for Medicare beneficiaries beyond the COVID-19 public health emergency and advances access to care in rural areas. 2020. www.cms.gov/newsroom/press-releases/trump-administration-proposes-expand-telehealth-benefits-permanently-medicare-beneficiaries-beyond.

28. Siwicki B. During pandemic, telehealth visits soar from 10 per week to 300 at group practice. Healthcare IT News. 2020. www.healthcareitnews.com/news/during-pandemic-telehealth-visits-soar-10-week-300-group-practice.

Joyce Sensmeier is a senior advisor, informatics, for the Healthcare Information and Management Systems Society and a *Nursing Management* editorial board member.

For 125 additional continuing-education articles related to management topics, go to NursingCenter.com/CE.

CE CONNECTION

Earn CE credit online:
Go to http://nursing.ceconnection.com and receive a certificate *within minutes*.

INSTRUCTIONS
Enhancing the patient and provider experience through telehealth

TEST INSTRUCTIONS

• Read the article. The test for this CE activity is to be taken online at **http://nursing.ceconnection.com**.

• You'll need to create (it's free!) and login to your personal CE Planner account before taking online tests. Your planner will keep track of all your Lippincott Professional Development online CE activities for you.

• There's only one correct answer for each question. A passing score for this test is 14 correct answers. If you pass, you can print your certificate of earned contact hours and access the answer key. If you fail, you have the option of taking the test again at no additional cost.

• For questions, contact Lippincott Professional Development: **1-800-787-8985**.

• Registration deadline is **September 2, 2022.**

PROVIDER ACCREDITATION

Lippincott Professional Development will award 1.0 contact hour for this continuing nursing education activity.

Lippincott Professional Development is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation.

This activity is also provider approved by the California Board of Registered Nursing, Provider Number CEP 11749 for 1.0 contact hour, and the District of Columbia, Georgia, and Florida CE Broker #50-1223.

Payment: The registration fee for this test is $12.95.