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**November 2021** • Vol.12 • No.6

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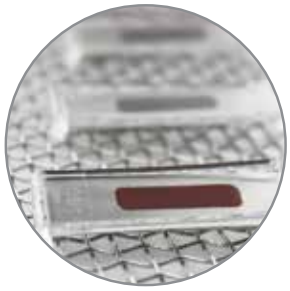

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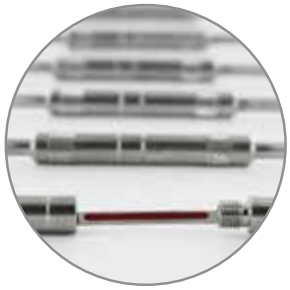
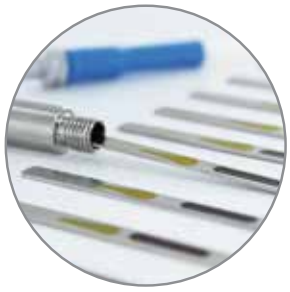


## LUMCHECK™

The LumCheck™ is designed as an independent check on the cleaning performance of pulse-flow lumen washers. Embedded on the stainless steel plate is a specially formulated blood soil which includes the toughest components of blood to clean.



## FLEXICHECK™

This kit simulates a flexible endoscope channel to challenge the cleaning efficiency of endoscope washers with channel irrigation apparatus. A clear flexible tube is attached to a lumen device with a test coupon placed inside; the entire device is hooked up to the irrigation port of the endoscope washer.

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# Is Type 2 Diabetes Ready for CGM?

Continuous glucose monitoring has most often been used by people with Type 1 diabetes. That may change.

**You've seen him sing, act, dance. This February you got a chance to hear him** complain about fingersticks. In case you missed it, Nick Jonas appeared in a Super Bowl commercial to plug the Dexcom G6 continuous glucose monitor. Jonas was diagnosed with Type 1 diabetes when he was 13.

People with Type 1 diabetes (a condition in which the pancreas produces little or no insulin) are already familiar with continuous glucose monitoring (CGM). But as they watched Jonas on TV, how many millions of those with Type 2 diabetes were left wondering if they too could benefit from CGM?

The Super Bowl ad was just one boost for CGM in 2021:

- In April, a study funded by Abbott (which makes the FreeStyle Libre) and published in the *Journal of the Endocrine Society* showed that acquisition of its flash CGM system was associated with reductions in acute diabetes-related events and all-cause inpatient hospitalizations. (Flash CGM systems allow users to scan the sensor and view current glucose value and trends.)
- On July 15, Dexcom announced that the U.S. Food and Drug Administration cleared for marketing the Dexcom Partner Web application programming interfaces (APIs), allowing the company to enable third-party developers (e.g., Garmin, Livongo) to integrate CGM data into their digital health apps and devices.

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› Three days later, on July 18, Medicare eliminated the requirement of the four-time-daily fingerstick in order to qualify for coverage of a continuous glucose monitor. The American Diabetes Association called the decision a "big win," adding that the requirement "was an unnecessary barrier for Medicare beneficiaries."

Instead of requiring users to prick their fingertips multiple times per day, CGMs use a tiny sensor wire inserted below the surface of the skin (usually on the abdomen or back of the arm) and secured with an adhesive patch. The sensor monitors the person's glucose levels throughout the day and night. The readings are transmitted to a handheld electronic receiver (a "reader") or smart device, where real-time data is provided to users about their glucose levels. The person can also review how their glucose changes over a few hours or days. Ideally, viewing glucose levels in real time can help people make more informed decisions throughout the day about how to balance food, physical activity and medicines.

Studies have shown the effectiveness of CGMs for people with Type 1 diabetes. In 2020, for example, the American Diabetes Association said that practical and quality-of-life-related benefits of CGM were "well documented."

## How about Type 2?

Statistics support growing interest in CGM for people with Type 2 diabetes. Of the 34 million Americans who have diabetes, only 5% to 10% have Type 1, according to the Centers for Disease Control and Prevention. The rest have Type 2.

Another 88 million have prediabetes, meaning their blood sugar levels are higher than normal, but not yet high enough to be diagnosed as Type 2 diabetes. Even people with prediabetes could potentially benefit from CGM by encouraging them to improve their lifestyles, according to researchers at UAB Medicine in Birmingham, Alabama.

**Statistics support growing interest in CGM for people with Type 2 diabetes. Of the 34 million Americans who have diabetes, only 5% to 10% have Type 1, according to the Centers for Disease Control and Prevention. The rest have Type 2.**

Two years after Dexcom introduced its fully mobile G5 CGM in August 2015, the company published a study in the Annals of Internal Medicine demonstrating that CGM by adults who received multiple daily insulin injections for Type 2 diabetes led to improved glycemic control. This past June, the company published a study in JAMA Network showing that in a randomized clinical trial including 175 adults with Type 2 diabetes, there was a significantly greater decrease in HbA1c levels over eight months with continuous glucose monitoring than with blood glucose meter monitoring (–1.1% vs –0.6%).

Not everyone is convinced of the efficacy of CGM for those with Type 2 diabetes.

"Most people with type 2 diabetes do not require self-monitoring of blood glucose, and unnecessary monitoring not only wastes money but can negatively impact quality of life," wrote Allen F. Shaughnessy, PharmD, MMedEd, Tufts University School of Medicine, in the June 2020 issue of American Family Physician. "Until we have research supporting continuous glucose monitoring for patients with Type 2 diabetes, especially those not receiving regular insulin injections, there are no patient-oriented benefits to justify its great expense and additional hassles for patients and physicians."

But recent developments show the market is moving in a different direction.

In March 2021, researchers from Oregon Health and Science University in Portland, Oregon, reported that randomized controlled trials in intensively insulin-treated T2D demonstrated the efficacy and safety of real-time CGM (rtCGM) in reducing glycated hemoglobin without increasing hypoglycemia.

At the American Diabetes Association 81st Scientific Sessions in June 2021, Newton, Massachusetts-based Onduo shared data from its virtual care program for people with Type 2 diabetes demonstrating significant and sustained improvement in HbA1c.

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The Onduo health management program combines a mobile app with remote lifestyle coaching and telemedicine visits with specialists. Individuals with Type 2 diabetes have access to endocrinologists, monitoring, and prescriptions for Dexcom G6 continuous glucose monitoring devices for intermittent use in high-risk participants.

"Participants who have an A1c >8% when they join Onduo, or are on insulin or a sulfonylurea, or haven't seen their primary care provider in a year, or have had a recent emergency room visit, are offered CGM for intermittent use," said Onduo Senior Director of Medical Affairs in an email to *Repertoire*. "Onduo will continue to follow clinical guidelines and best practices for use of CGM. We also will continue to conduct research on the use of CGM in type 2 diabetes, as we are uniquely positioned to advance knowledge in this field."

## The CMS decision

Meanwhile, the recent CMS decision to offer coverage for a continuous glucose monitor even without the four-time-daily-fingerstick requirement could be significant for people with Type 2 diabetes who use multiple daily injections of insulin, said Laura Young, M.D., PhD, associate professor of medicine at UNC School of Medicine in Chapel Hill, North Carolina, in an email to *Repertoire*.

"When patients do not achieve adequate glycemic control with non-insulin therapies, basal insulin is generally initiated. In this situation, patients will typically check their blood glucose values 1-2 times per day. If after initiation of basal insulin, glycemic targets are still not met, intensification to multiple daily injections [is warranted]. It is estimated that 24% to 54% of patients with type 2 diabetes fall into this category. In this situation testing blood glucose values at least four times per day is required to help patients and caregivers adequately dose insulin and avoid hypoglycemia."

Meanwhile, the development of newer, non-insulin agents, and a resulting decrease in the number of patients requiring basil bolus therapy, could affect the impact of the CMS change, she said. ■


## Diabetes by the numbers

- 34.2 million U.S. adults have diabetes, and one in five of them don't know they have it.
- Approximately 5-10% of those 34 million people have Type 1 diabetes. The remainder have Type 2.
- Diabetes is the seventh leading cause of death in the United States.
- Diabetes is the No. 1 cause of kidney failure, lower-limb amputations and adult blindness.
- In the last 20 years, the number of adults diagnosed with diabetes has more than doubled.

**Source:** Centers for Disease Control and Prevention

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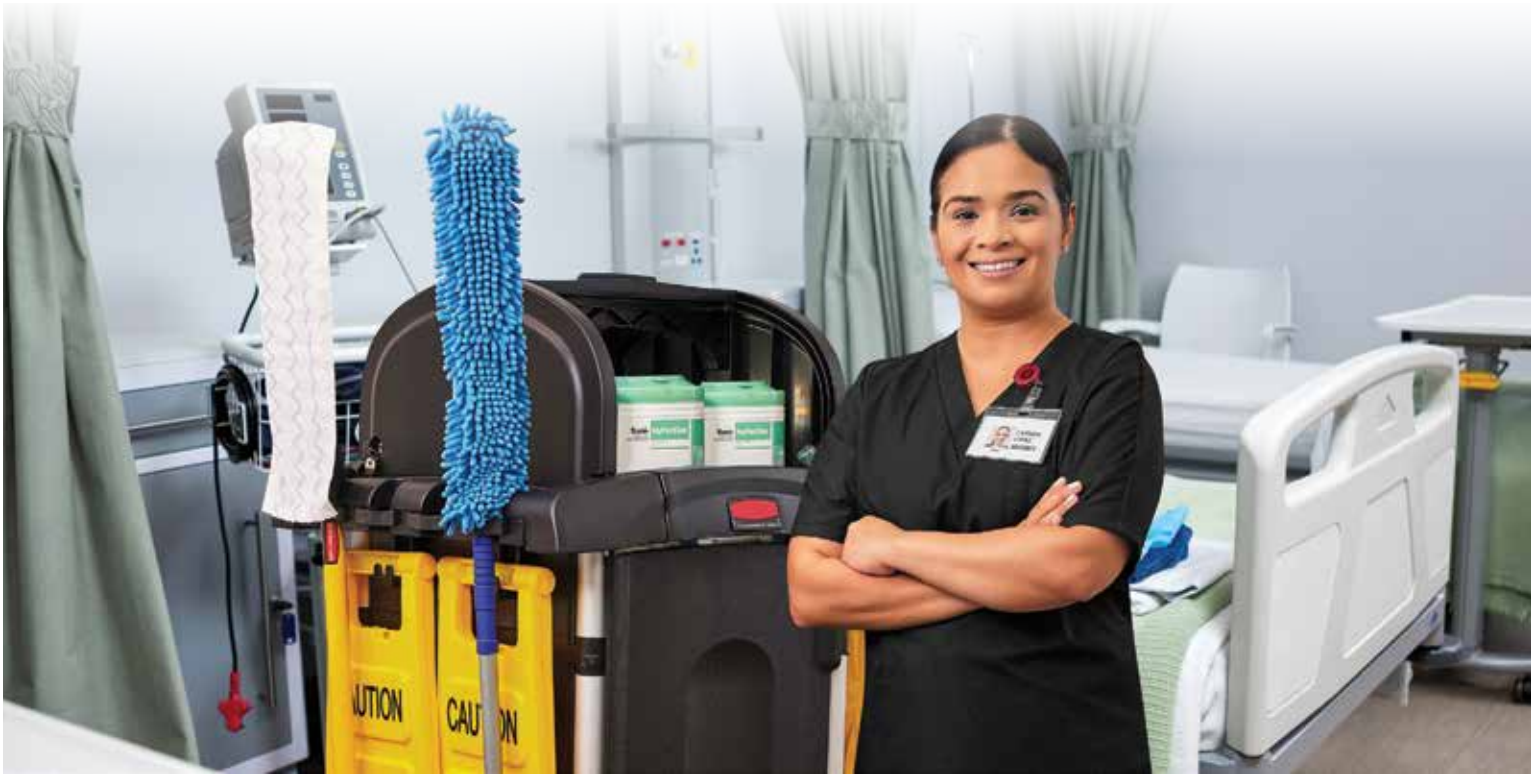

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## Why it's crucial to differentiate between COVID-19, flu, and RSV

**Due to the ongoing pandemic, there is significant emphasis on diagnostic testing in laboratory medicine for flu, RSV, and COVID-19.** "While many of the signs and symptoms of infections caused by these viruses are similar, the treatments and patient interventions for infections caused by SARS-CoV-2, influenza virus, and RSV are different," said Michael Loeffelholz, Ph.D., Senior Director, Medical Affairs for Sunnyvale, Calif.-based Cepheid, a molecular diagnostics company. "Infected, hospitalized patients are often cohorted, and even in the urgent care and physician office settings, antiviral agents are often prescribed for influenza infections, making accurate diagnosis important," Dr. Loeffelholz said.

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Cepheid has responded to the COVID-19 pandemic by developing fast and accurate tests for SARS-CoV-2, including the Xpert® **Xpress** CoV-2/Flu/RSV ***plus*** (4-plex *plus*) test that detects SARS-CoV-2, Influenza A, Influenza B, and Respiratory syncytial virus (RSV) all in a single test. Studies have shown Cepheid's SARS-CoV-2 tests to be among the most accurate available.[1,2] Cepheid's test systems are scalable from the point of care to the high volume core laboratory. Importantly, the same Cepheid SARS-CoV-2 test can be used at both point of care and in the core laboratory, providing near-patient testing accuracy equivalent to that of large batch-based platforms.[3]

## Accuracy and efficiency

Cepheid's 4-plex test has been shown to provide high accuracy, equivalent to that of Cepheid tests that separately detect SARS-CoV-2, Flu and RSV.[4,5] Cepheid's 4-plex plus test is the latest generation and exemplifies Cepheid's proactive approach to address increasing genetic diversity of SARS-CoV-2.

"The 4-plex *plus* will improve operational efficiencies by combining four important viral targets in a single test," Dr. Loeffelholz said. "This means fewer patient specimens to collect and laboratory tests to perform, compared to separate tests for these viruses."

SARS-CoV-2, influenza viruses, and RSV cause upper and lower respiratory tract diseases that have many overlapping signs and symptoms.[6] Additionally, surges of COVID-19 have occurred during the winter months, when influenza and RSV incidence are usually at their highest. These viruses each have unique treatment or patient management pathways. These factors demonstrate the value of multiplexing SARS-CoV-2, influenza A, influenza B, and RSV in a single test.

**"The 4-plex *plus* will improve operational efficiencies by combining four important viral targets in a single test. This means fewer patient specimens to collect and laboratory tests to perform, compared to separate tests for these viruses."**

**– Michael Loeffelholz, Ph.D., Senior Director, Medical Affairs for Sunnyvale, Calif.-based Cepheid**

Among other enhancements, Cepheid's 4-plex plus test adds a third genetic target for SARS-CoV-2. Detection of any of the nucleocapsid, envelope, or RNA-dependent RNA polymerase gene targets will produce a positive result for SARS-CoV-2. Cepheid's 4-plex *plus* test includes three genetic targets for SARS-CoV-2 for broad coverage of lineages and variants, including the Delta Variant of Concern, and to mitigate future genetic drift. Additionally, the test incorporates multiple genetic targets for influenza viruses. As such, the 4-plex plus test is well positioned to detect both current and future emerging strains of SARS-CoV-2 and influenza viruses.

Indeed, Cepheid's 4-plex *plus* test is fast, accurate, and scalable from the point of care to the high-volume core laboratory. The point-of-care and laboratory test systems use the same reagents, providing point-of-care test performance equivalent to that observed in the reference laboratory. Incorporation of multiple genetic targets for SARS-CoV-2 and influenza allows broad strain, variant, and subtype coverage, and make Cepheid's 4-plex *plus* an excellent long-term solution for detection of these important respiratory viruses. SARS-CoV-2, influenza viruses, and RSV may co-circulate in the community. Additionally, signs and symptoms of infections caused by these viruses can be similar, making accurate laboratory diagnosis important. ■


[1] Zhen W, Smith E, Manji R, Schron D, Berry GJ. Clinical Evaluation of Three Sample-to-Answer Platforms for Detection of SARS-CoV-2. J Clin Microbiol. 2020 Jul 23;58(8).
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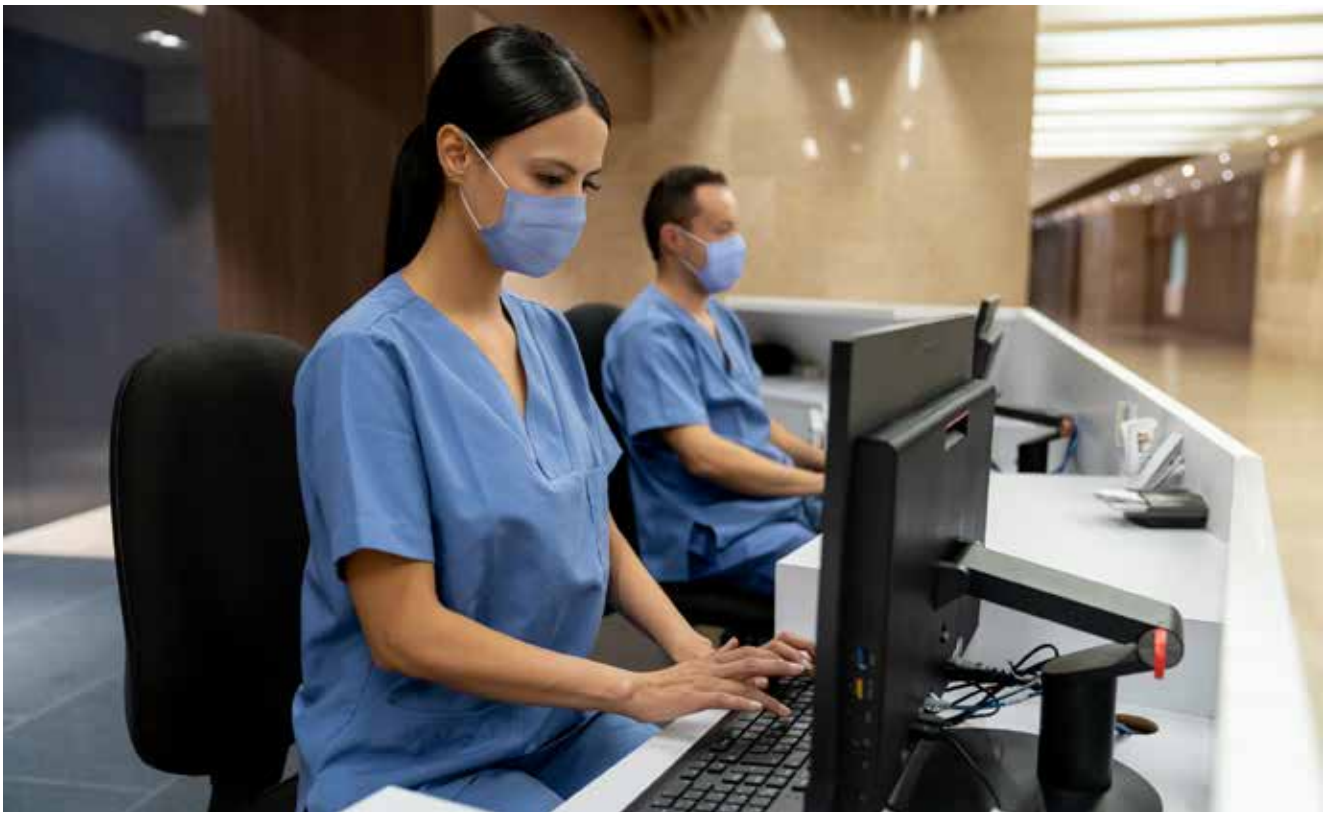
[4] Leung EC-M, Chow VC-Y, Lee MK-P, Tang KP-S, Li DK-C, Lai RW-M. Evaluation of the Xpert Xpress SARS-CoV-2/Flu/RSV Assay for Simultaneous Detection of SARS-CoV-2, Influenza A and B Viruses, and Respiratory Syncytial Virus in Nasopharyngeal Specimens. J Clin Microbiol. 2021 Mar 19;59(4).
[5] Mostafa HH, Carroll KC, Hicken R, Berry GJ, Manji R, Smith E, et al. Multicenter Evaluation of the Cepheid Xpert Xpress SARS-CoV-2/Flu/RSV Test. J Clin Microbiol. 2021 Feb 18;59(3).
[6] https://www.cdc.gov/flu/symptoms/flu-vs-covid19.htm?web=1&wdLOR=c5625922F-B970-4971-8702-F16D97311251

BY MARK THILL

# 'How Secure is Your Device?'

Connected devices and equipment can be an entranceway for hackers



**The revelation was like something out of a spy novel. In October 2013, former Vice President Dick Cheney and his cardi-**ologist, Dr. Jonathan Reiner, told "60 Minutes" that when Cheney got a heart defibrillator in 2007, Reiner ordered the manufacturer to disable the wireless feature, to prevent would-be hackers from interfering with the device and shocking Cheney into cardiac arrest.

Since then, ransomware attacks on healthcare providers have become common, and medical devices are now being scrutinized not only because of the possibility of hackers interfering with them to hurt or kill people, but because devices can be used to "open the floodgates" for hackers to gain access to electronic medical records, personal patient information, even providers' financial systems.

## WannaCry

In the first half of 2020 alone, the Department of Health and Human Services saw a nearly 50% increase in the number of healthcare-related cybersecurity breaches, writes cybersecurity expert Seth Carmody in a recent article in HIT Consultant. Carmody is vice president of regulatory strategy for MedCrypt, a healthcare security provider, and former cybersecurity program manager in the U.S. Food and Drug Administration's Center for Devices and Radiological Health (CDRH). The healthcare industry's cyber risk exposure is weak, he says.

Medical device evaluation firm ECRI pointed to cybersecurity challenges as one of its Top 10 Health Technology

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Hazards for 2021. Third-party software components that are incorporated into medical devices pose unique cybersecurity challenges, and reducing vulnerabilities can be hindered by:

- Difficulty identifying which medical devices include the affected software.
- Delays in receiving guidance while the medical device vendor audits its product lines, validates third-party patches, and develops recommendations for remediating the problem
- Practical challenges associated with applying the patch in a clinical environment where equipment is in continuous patient use.

The WannaCry ransomware attack in 2017 demonstrated how the exploitation of a vulnerability in third-party software could have devastating effects, according to ECRI.

In the United Kingdom, WannaCry infected 1,200 diagnostic devices, caused many others to be temporarily taken out of service to prevent the malware from spreading, and forced five UK hospital emergency departments to close and divert patients, writes John Riggi, senior advisor for cybersecurity and risk for the American Hospital Association, in a recent post on the AHA website. "The FBI considers WannaCry the first ransomware attack to widely target vulnerabilities commonly found in medical devices."

## Cause for concern

A 2016 article in HealthManagement.org by ECRI makes the case for medical devices and equipment as cause for concern.

"Medical devices are no longer just machines attached to or used by the patient. They are often connected to the HER – either hardwired or wirelessly. A typical patient in a critical care unit could easily be connected to 10 or more networked devices. While the information on the medical device may not be useful to a hacker, the medical device can be used as a conduit for accessing patient information in the EHR, like home address and social security number, which can be used to perpetrate identity theft or real theft in the patient's home while the patient is hospitalized."

**'If you try to make healthcare professionals security experts, you'll get worse healthcare and inadequate security.'**

Biomedical engineering presents its own set of dangers, according to ECRI. "In-house biomedical engineering technicians and vendor field-service engineers typically have administrative rights to access performance records and to apply service diagnostics. These are typically not a managed credential and at many hospitals are the same for everyone with this level of access to the device. What happens if a technician or field service engineer leaves the hospital or the vendor? The password leaves with the person, with no hospital policy or procedure to update the access codes."

## Who's responsible?

It's not a question of negligence on the part of healthcare providers, medical device manufacturers or the FDA. But the fact is, someone has to address the growing problem. Who's it going to be? Carmody points out the dilemma.

"Healthcare is optimized for healthcare, not security," he says. "Expecting [healthcare] professionals to deliver world-class medical care and defend against cyberattacks is like requiring a world-class athlete in one sport to also be world-class in another sport – it can be done, but it's rare and more than a little unfair. Do we really want companies that are working around the clock to care for those affected by a pandemic to also have to battle cyberattacks up and down the supply chain? If you try to make healthcare professionals security experts, you'll get worse healthcare and inadequate security."

Meanwhile, medical device manufacturers find themselves in a dilemma of their own, he says. "[Investing in] the level of commitment for security features that aren't fully incentivized by the market is a tough sell for business leaders that are competing on clinical features."

Even the feds have their hands full.

"While it makes sense for the FDA to be arbiters of security, now the FDA also has to assess the security adequacy of each device given its clinical risk context," says Carmody. "And because they are also part of the healthcare supply chain, their job, and first priority, is healthcare,

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not security. When push comes to shove, clinical wins."

That said, the federal government has tried to address medical device cybersecurity for years. Most recently, the FDA appointed Kevin Fu, a University of Michigan associate professor and security advocate, to a newly created leadership position to oversee medical device security. In an interview with MedTech Dive, Fu said the FDA seeks to require that:

- Devices have the capability to be updated and patched in a timely manner.
- Premarket submissions to FDA include evidence demonstrating the capability from a design and architecture perspective for device updating and patching.
- Manufacturers phase in a Cybersecurity Bill of Materials [also referred to as a Software Bill of Materials, or SBOM], that is, a list that includes commercial, open source, and off-the-shelf software and hardware components that are or could become susceptible to vulnerabilities.
- Device firms publicly disclose when they learn of a cybersecurity vulnerability.

## 'It takes a village'

"It is important to remember that in the cybersecurity world, 'it takes a village,'" Peter Wyner, chief information officer for CME Corp., wrote in an email.

"It is essential that manufacturers provide capabilities for any connected medical device to be updated as the threat landscape evolves, but it is equally important that they perform regular penetration testing on their devices, provide timely patches when required, and communicate in a clear, concise, and expeditious manner with their customer and distributor communities when such patches are required.

**It is important to remember that in the cybersecurity world, 'It takes a village.'**

"Distributors have a role to play propagating information regarding vulnerabilities to their customers when they are notified by manufacturers," he continues. "CME sees our role as that of trusted partner with many of the country's largest healthcare providers. We strive to provide information to our customers as it is communicated to us from our vendor partners, and to broker communications between end user and manufacturer when needed.

"End users have probably the most vital role of all – maintaining accurate inventory management and patch management programs to ensure that EVERY device can be located and patched when required. CME can help customers large and small with both periodic and real-time inventory management solutions."

"Security of a medical device is a joint venture between manufacturers and providers," Chad Waters, senior cybersecurity engineer, Device Evaluation Group at ECRI, told Repertoire in an email. "Manufacturers should provide the information to assist in the minimizing of risk. This would include security questionnaires and security implementation guidance. Manufacturers should also be moving away from the notion of a medical device as a black box and have transparency about what is being connected to a provider's environment.

"Some larger providers are already requiring SBOMs during the procurement process. As tools are developed to assist providers in analyzing SBOMs the requests will become more common throughout the sector. Manufacturers should incorporate SBOM generation into their product development processes going forward. Going back afterwards may require more resources." ■

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# What being a future ready organization means for Ansell

## Ansell opens four new surgical dipping lines in three plants in Sri Lanka and Malaysia

**Nearly two years since the early disruptions of the COVID-19 pandemic, the healthcare supply chain still struggles to source the critical personal protective equipment (PPE) and medical supplies that healthcare workers need to provide patient care as well as protect themselves.** The pandemic severely impacted the supply chain ecosystem, exploiting the need for stronger supplier resiliency and solid continuity plans.


While some manufacturers were severely impacted by COVID-related constraints and have communicated their inability to supply at their historical levels, Ansell – a manufacturer of more than 10 billion gloves per year – will have commenced production on four new surgical glove dipping lines by the end of 2021. Three lines are operational and the fourth line will begin producing by November 2022. These new lines are spread across three Ansell-owned plants in Sri Lanka and Malaysia, minimizing the production risk should one of the countries impose lockdown measures. The new capacity is part of the ongoing expansion that Ansell has undertaken during the past five years, significantly increasing their production output.

### Being "Future Ready"

"As a forward-thinking organization, Ansell spends a great amount of effort to understand market dynamics and challenges facing healthcare facilities," said Andrew Hurdle, Senior Marketing Manager, Acute Care – NA Medical for Ansell. "Market demand is projected to grow globally, and supply chain leaders are seeking dependable suppliers for surgical gloves and other safety solutions. Ansell is committed to being that supplier and partner that health systems can rely on now and in the future."

A typical surgical glove line takes approximately 18 months from construction to full commission. Onboarding depends on various regulatory factors. New products have lengthier approval processes, but if the same product is manufactured in the same factory in an equivalent line it's an easier process.

A "future ready" organization like Ansell is addressing future needs in healthcare and the logistical challenges to meet them, such as getting the right products in the doors of health systems. "The status quo is no longer acceptable," Hurdle emphasized. "The need for safety solutions remains at peak levels for health systems and the pandemic continues to be uncertain."

Many healthcare organizations understand the importance of safety stock practices for critical supplies, along with a

# STAY FUTURE READY WITH ANSELL

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- **Sustainable Production:** New surgical and exam glove production lines are now running.
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blend of just-in-time stock practices. And some governments are mandating the amount of healthcare supplies that must be on the shelves of health systems.

"The inability for health systems to secure critical supplies like surgical gloves can lead to cancellations of surgeries," Hurdle said. "That can cause significant financial ramifications and impact a healthcare facility's future."

Ansell implements dedicated demand planning safeguards that ensure continuous supply delivery to its global customer base. All raw materials used to construct Ansell's gloves, like natural rubber latex, neoprene and polyisoprene, are validated from at least two different sources, allowing Ansell to maintain supply and minimize cost increases. Additionally, biomass burners are used to minimize total carbon emissions and supplement local utilities. Water retention tanks are now on site to prevent operational disruptions in the event of a drought.

## What Suppliers of PPE are Facing

The reliance upon outsourcing for production and sterilization prevented some suppliers from controlling their product delivery to their customers. At the peak of the COVID-19 surge, the demand for Nitrile exam gloves skyrocketed to an all-time high. Manufacturers of both surgical and exam gloves deprioritized surgical glove production, leaving those outsourced suppliers at a loss in glove manufacturing capacity and unable to deliver supplies. Ansell has dedicated lines for surgical and exam products, which ensured production of both were secure and protected customer supply.

"More than ever, higher emphasis must be placed on suppliers that are stable and have a proven track record. In addition, establishing quality protocols that meet or exceed industry standards should play a greater role in decision making," Hurdle said. ■


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# Consolidated Service Centers

## CSCs emerged long before the pandemic; now their presence is magnified

**Before the pandemic, Consolidated Service Centers (CSCs) were emerging as** a viable option for IDNs large enough to take on the challenge of self-sufficiency within their supply chains. The challenges of the pandemic highlighted why CSCs continue to gain popularity among IDNs.

According to a recent survey of health systems regarding CSCs given by Jamie Kowalski Consulting, a healthcare research firm, 76% of respondents felt government responded poorly or very poorly to the pandemic, and 53% felt distributors responded poorly or very poorly to it. Also, 41% felt GPOs responded poorly or very poorly to the COVID-19 crisis.

"There was a perception that direct suppliers performed better than distributors," said Jamie Kowalski, founder of Jamie Kowalski Consulting and a strategic advisor in healthcare supply chain management. "But no supply chain in the world can make products suddenly appear that were never forecasted or required. It was a wakeup call on preparedness plans for health systems. The existing plans were insufficient."

The top challenges were the lack of available stock, escalating unit costs for PPE and other stock, and increased lead times, particularly from international sources for PPE. This led to health systems identifying and qualifying new sources of supply quickly and asking themselves what their actual demand was, and when and where they needed it.

And IDNs with CSCs in place 100% believed it helped them respond to the pandemic. A CSC provides a centralized facility that can provide services for different care facilities within a health system. Typically, a centralized supply distribution center can consolidate inventory and increase procurement savings through contracting, logistics and better purchasing.

"Most [IDNs with CSCs in place] already had some direct contracting purchasing infrastructure and procedures in place before the pandemic," said Lorcan Sheehan, founder and CEO of Dublin, Ireland-based PerformanSC Supply Chain. "When existing suppliers couldn't scale, they at least had a basis to move forward." They also had the physical logistics capability for warehouse space and could look to scale, according to Sheehan.

"They had a way to secure, maintain, and distribute product effectively within their health system," Sheehan said.

With logistics challenges across the globe, plus delays at U.S. ports, there's a need to rethink the approach to inventory and risk. "There's a greater expectation during the next crisis for supply chain to respond with better preparedness," Kowalski said. "So, there's a bigger appetite for investments in the supply chain."

**"There's a greater expectation during the next crisis for supply chain to respond with better preparedness. So, there's a bigger appetite for investments in the supply chain."**

– Jamie Kowalski Consulting

These potential investments include how to structure and scale around technology for better visibility as well as demand management, forecasting and allocations. It also focuses on more system-driven processes over manual processes. Health systems are moving away from single sourcing for particular products and are open to partnerships with manufacturers to secure supply and capacity.

"There's a more conservative approach short term to holding more inventory," Kowalski said. "But demand planning and forecasting is difficult. You can do it for the long term, but it's challenging for the short term. A modified forecasting approach between suppliers and buyers will never be exactly on point."

For large IDNs, the benefits of having a CSC include better control and supply standardization. Improved service levels come along with a centralized supply distribution center as well as organization to system-wide services.

"But nobody thinks the CSC model is perfect. It hasn't worked for some," Sheehan said. "Some IDNs have achieved success and a level of scale, but they can invest tools and talent to run it." He added that health systems must know their spend and demand first and must emphasize discipline within their health system first.

"Most want control to ensure their deliveries, but it starts with discipline within their own organization," Sheehan said. "Then benefits can be achieved through partners with clear requirements."

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BY DEANNA LEONARD, M.B.A.

# Make Giving Back Part of Your Corporate Commitment

**Our company has a very simple mission statement: "We believe that every patient, resident, caregiver and family member should feel Safe and Comfortable in today's healthcare environments."** To those of us at Encompass, these aren't just nice words. We are living our mission every day, and even more so since the COVID-19 pandemic began. One of the ways we're enhancing safety and comfort is to share our success by helping those with the greatest needs.

What enables an organization to give back?

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Above all, you have to care about individuals – from those in your community to those you will never meet – and then find ways to turn that compassion into tangible support.

## Ongoing Needs Must Be Recognized

Underserved and rural healthcare facilities have always struggled to obtain adequate equipment and apparel. So last fall, in collaboration with Jockey International, we began the "Buy Scrubs/Give Scrubs" program. For every unique individual order on Jockey.com with at least one Jockey® scrub item, Encompass Group donated Jockey scrubs to facilities in need. We identified these facilities thanks to the National Rural Health Association, Centers for Disease Control and Prevention (CDC) data, the non-profit nursing group Society of Nurse Scientists Innovators Entrepreneurs and Leaders (SONSIEL) and the group-purchasing organization Vizient, Inc. We donated more than 20,000 scrub units in just the first month!

## During Emergencies, Helping People is in Our DNA

Unfortunately, natural disasters seem to have become a way of life in our world. When emergencies occur, we quickly try to determine the most pressing needs and how we might address them, either on our own or with one of our generous partners.

When Hurricane Ida hit the Gulf Coast this summer, we delivered a truckload of scrubs and other apparel to those healthcare providers most hurt by the devastation in Louisiana. In response to the California wildfires, we were able to make multiple donations of scrubs, towels and coats to employees and families of Dignity Health, now CommonSpirit, one of the largest healthcare providers in California. We've partnered with this system for some time to provide apparel to the homeless, so it was a perfect opportunity to assist a charitable ally.

## Stepping Up to COVID-19

The coronavirus pandemic has become a "chronic emergency" in the healthcare industry. The urgent need for PPE gowns and scrubs, along with a seriously disrupted supply chain, drove us to help as many in the industry as we could. Even individual employees made and delivered their own contributions. Here are a few of the ways we pitched in:

- Parenter with Jockey in donating 10,000 scrubs to the temporary hospital at the Jacob K. Javits Convention Center in New York City
- Donated 250,000 tier-3 isolation gowns to FEMA for front-line distribution
- In honor of 2020's Year of the Nurse, we donated 1,200 sets of scrubs to seven hospitals near our headquarters in Georgia
- Partnered with Jockey in donating 10,000 N95 masks and 10,000 surgical masks to the fire department of Kenosha, Wisconsin
- Supplied OR sheeting material to a Georgia health system for making surgical masks for front-line workers
- Donated scrubs to Native American reservations and local senior living facilities in need

## Add Giving Back to Your Business Plan

Encompass has an annual emergency budget, making it easier for us to identify and address needs. It's heart-warming to receive the gratitude of those we're able to help. But appreciation from the recipients is not why we give back. Whether large or small contributions, one or many times, in our neighborhood or across the country, it's just the right thing to do. ■

Deanna Leonard is Vice President and General Manager - Professional Healthcare Apparel Encompass Group, LLC.

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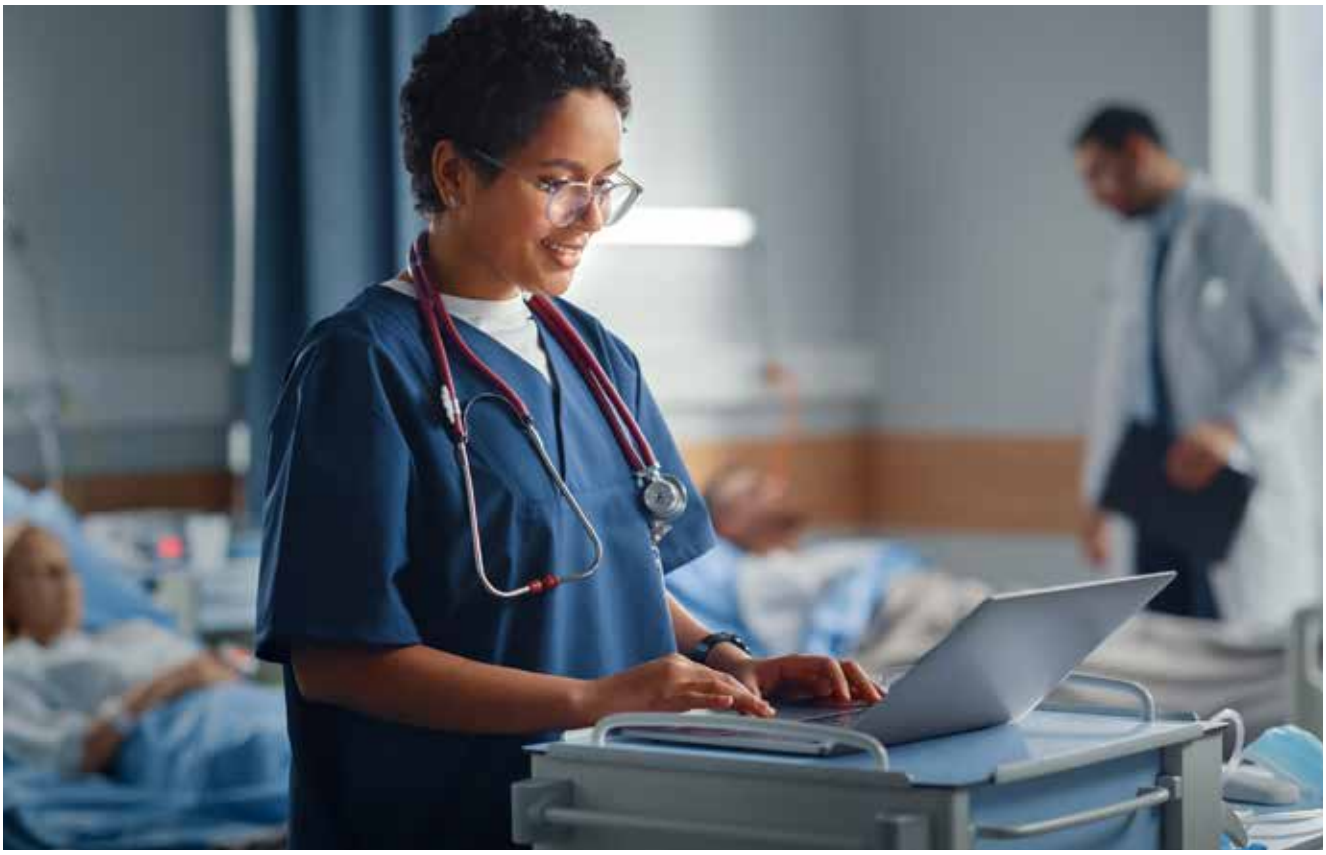

# The Nursing Workforce

Opportunities, barriers and hopes for a vital component of healthcare providers.

**The challenges – and opportunities – facing the nursing profession, and all** those who rely on nursing, precede COVID and will outlast it. In a report published this spring, "The Future of Nursing:2020-2030," the National Academy of Medicine made the following points:

- As the U.S. population ages, patients will include increasing percentages of older people, many of whom will have multiple comorbid conditions, which will increase the complexity and intensity of the nursing care they require. Increases can also be expected in the number of frail older adults—those who need assistance with multiple activities of daily living, are weak and losing body mass, and have an increased risk of dying within the next 2–3 years.
- Nurses will have to expand their roles to supplement a shrinking primary care workforce, provide care to rural populations, help improve maternal health outcomes, and deliver more health and preventive care in community-based settings.

A 2020 report prepared for the American Association of Medical Colleges estimated that by 2033, current physician shortages could increase, ranging between 21,400 and 55,200 for primary care physicians, and between 33,700 and 86,700 for specialty physicians. These projections, made prior to the COVID-19 pandemic, take into

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account decreasing hours worked by physicians, accelerating retirements, and increasing demands for medical care among aging baby boomers.

- As the population diversifies in race, ethnicity and other factors, nurses will need to be well-versed in providing care that is culturally respectful and appropriate. Nurses also will be called on to address the persistent and widening disparities in health tied to poverty, structural racism, and discrimination.
- Nurses may be called upon to aid in providing mental health care among the general population, stemming from high rates of depression, suicide, anxiety, trauma, and stress due to such challenges as substance abuse, gun violence, and now the lingering effects of the pandemic.

true population health management and chronic disease management to enhance the work of physicians, who lack the bandwidth to perform all these functions."

"Care is and will continue to occur more frequently outside of acute care sites," says Joan Stanley, PhD, RN, FAAN, CRNP, CNL, who is chief academic officer for the American Association of Colleges of Nursing. "It is important that [nurses] are prepared to provide care across the continuum of care. If the U.S. is going to improve outcomes of care and address the inequities in health care, a greater emphasis must be made in prevention and chronic disease management. These are areas of care in which nursing both at the entry-level and advanced levels of practice can make significant contributions to care."

**'Primary care practices should evaluate the skill mix of current team members to ensure that their contributions are optimized, and either hire RNs into enhanced roles or reconfigure the roles of those already on the team.'**

New and broader roles for RNs and advanced-practice RNs (e.g., nurse practitioners) can enhance patient care and access to care, says Deena Gilland, DNP, RN, NEA-BC, FAAN, vice president and chief nursing officer of Emory Ambulatory Patient Services Operations at Emory Healthcare in Atlanta. "Nurses can perform care coordination,

## Team care

The potential role of RNs in the primary care setting has been a topic of discussion for years. According to the Institute of Medicine's 2011 report "Future of Nursing: Leading Change, Advancing Health, "traditional nursing competencies, such as care management and coordination, patient education, public health intervention, and transitional care, are likely to dominate in a reformed healthcare system as it inevitably moves toward an emphasis on prevention and management rather than acute [hospital] care."

Some have used the term "team care" to describe a physician practice that makes full use of the talents and skills of all staff members, including RNs. In 2008, Peter Anderson, M.D., a family physician in Newport News, Virginia, described in Family Practice Management his practice's "family team care" system, which, he said, improved professional satisfaction, quality of care and financial performance. Most patient visits can be broken down into four distinct components, he wrote:

- **Part 1:** Data-gathering.
- **Part 2:** Analysis of data and pertinent physical exam.
- **Part 3:** Decision-making and development of a plan.
- **Part 4:** Implementation of the plan and patient education.

"During a traditional office visit, the physician completes the majority of all four components. But in the team care model, the clinical assistant [typically an RN or LPN, or a capable medical assistant] gathers data according to specific protocols and communicates that information to the physician, in the presence of the patient, when the physician enters the exam room (Part 1). The physician then analyzes the data, conducts the exam, determines the diagnosis and develops the treatment plan (Parts 2 and 3).

"The clinical assistant documents the findings and additional information elicited by the doctor during the exam. The physician discusses the treatment plan

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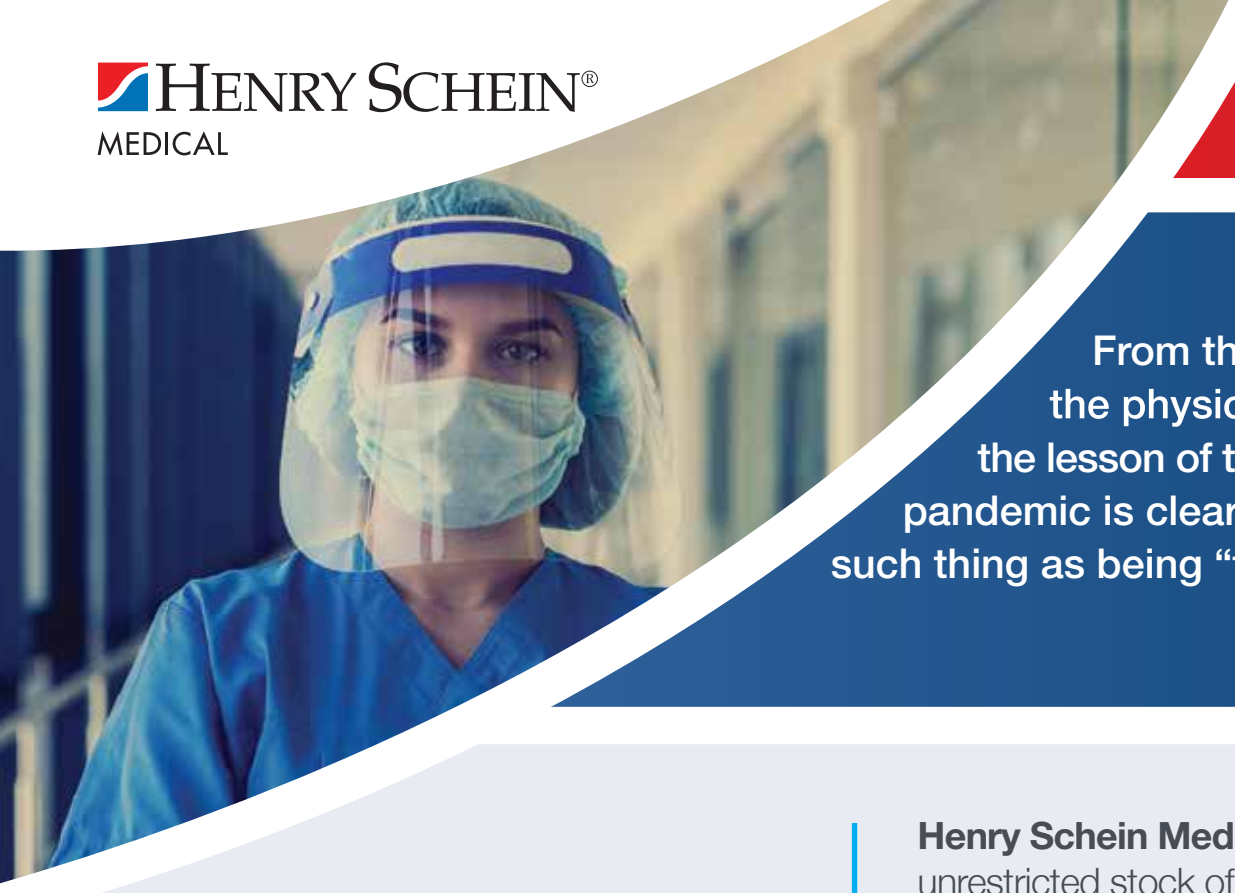

From the front lines to the physician's office, the lesson of the COVID-19 pandemic is clear: there's no such thing as being "too prepared."

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with the patient and the clinical assistant and exits the room. The clinical assistant closes the visit with the patient, reiterating the physician's instructions and providing prescriptions, referral information and patient education materials as directed by the physician (Part 4)."

## Beyond the practice environment

In June 2016, the Josiah Macy Jr. Foundation convened a group of national experts to address the need to transform primary care and promptly identified the need to change the culture of healthcare and transform the practice environment. The outcome of those proceedings were published under the title "Registered Nurses: Partners in Transforming Primary Care."

The report emphasizes the need to overcome the limited ways in which many primary care practices currently use RNs, e.g., telephoning prescriptions to pharmacies or performing administrative duties.

"Primary care practices should evaluate the skill mix of current team members to ensure that their contributions are optimized, and either hire RNs into enhanced roles or reconfigure the roles of those already on the team," the experts concluded. "The RN roles should include care management and coordination for aging and chronically ill patients and those with increasingly complex health needs; promoting health and improving patients' self-management of prevention and behavioral health issues; and placing greater emphasis on transitional care, prevention, and wellness. Practices should optimize the potential of RNs, allowing them to spend ample face-to-face time with patients."

RNs also can help improve transitional care, as patients move between hospitals, other care facilities, and home. Further, they can help improve patient engagement, quality scores, and team collaboration using health assessments, patient education, motivational interviewing, medication reconciliation, care planning, and more.

**'Nurses operating at their full scope of practice are skilled at communicating with patients and the healthcare team – a very, very vital role in the practice.'**

## The human element

Because of their clinical knowledge, experience, and hands-on work with patients, nurses are uniquely qualified to step up their role in the outpatient clinic, says Sean DeGarmo, PhD, RN, ACNS-BC, FNP-BC, ENP-BC, director of Advanced Practice Initiatives and Certification Outreach at the American Nurses Credentialing Center. "Nurses operating at their full scope of practice are skilled at communicating with patients and the healthcare team – a very, very vital role in the practice." Using that skill, they keep in touch with patients between visits, answer questions, and – because they understand diagnostic tests and procedures –help make sure patients are scheduled appropriately and understand the plan of care, he says.

"Nurses are skilled in dealing with the human responses to the disease process, not just the disease itself."

"We need to make sure the public – and even nurses themselves – see nurses as capable of providing care at all ends of the spectrum, not just as comforters or as the ones to carry out doctors' orders," says Katie Boston-Leary, PhD, MBA, MHA, RN, NEA-BC, who is the director of nursing programs and co-lead for Project Firstline in the Department of Nursing Practice & Work Environment at the American Nurses Association. "If nurses are to feel valued, they must be allowed to practice at the top of their license." Nurses can address the primary care supply and demand gap starting with increasing and optimizing roles as nurse practitioners. As case managers, for example, they help patients and the community understand steps they can take to remain well, a process that takes place largely outside the doctor's office, including on the phone or video, she says.

"We have an increasing number of advanced practice nurses who can help provide care in the office, but room has to be made for them to enter that space."

## Barriers

Proponents argue convincingly that RNs can and should be allowed to manage patient care across the continuum of care. But are they?

"It has been happening around the country for the past five to 10 years," says

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1 Anderson, D., et al (2013). Decontamination of Targeted Pathogens from Patient Rooms Using an Automated Ultraviolet-C-Emitting Device. *Infection Control and Hospital Epidemiology,* 34(5), 466-471.2.

2 Mahida, N, et al (2013). First UK evaluation of an automated Ultraviolet-C room decontamination device (Tru-D). *Journal of Hospital Infection,* 05(005), 1-4.3. Sexton, D., Anderson, D., et al (2017).

3 Enhanced terminal room disinfection and acquisition and infection caused by multidrug-resistant organisms and Clostridium difficile (the Benefits of Enhanced Terminal Room Disinfection study): a cluster-randomised,multicentre, crossover study. *The Lancet.* 389(10071), 805-814

Gilland. While not universally adopted, "it's an evolution," she says. With changing payment and reimbursement models, telehealth and today's emphasis on population health, the transformation will speed up. "The time is now. The spotlight is on."

Authors of a September 2018 article in Nursing Outlook magazine, "The American Academy of Nursing on policy: Emerging role of baccalaureate registered nurses in primary care," wrote that high-performing teams, including RNs, who participated in the Robert Wood Johnson Primary Care Teams' "Learning from Effective Ambulatory Practices (PCT-LEAP)" program played a pivotal role in preventive health and chronic care management and practiced autonomously in many of these domains. "BSN-RN responsibilities in high-performing primary care organizations have been found to increase access to healthcare services, decrease hospital re-admission, ER use, and overall costs of care, and improve quality of care, patient outcomes, and staff satisfaction," they said.

**'Over the past five years or so, we had seen a great interest among nursing graduates who want to practice in ambulatory care. They understand that tackling our healthcare crisis starts in the non-acute-care setting.'**

Nurse-led clinics have proven to reduce lengthy backlogs of care, says Boston-Leary. "Data shows they are successful and, over time, many in the community are seeing the benefits."

DeGarmo says that studies have demonstrated that practices with strong working teams, in which everyone works to their highest level, function better and yield better patient outcomes. "In a shared-decision-making environment, everyone has a voice. Instead of someone telling staff, 'I want you to do this,' you find people speaking up with, 'Is this the best treatment option and has it taken into account what matters most to the patient?' It leads to a more functional and productive work environment."

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But barriers still exist. The Macy Foundation identified four of them:

- Many RNs in primary care still spend much of their time on patient triage, sorting out who needs to be seen immediately and who can wait – important functions, but functions that take away time that could be spent on chronic care management, care coordination and preventive care.
- Some state laws inhibit RNs from exercising the full extent of their education and training. Even when state law supports full practice authority, healthcare organizations sometimes restrict RNs from practicing to the full extent of their licensure.
- Much of the work that RNs and other primary care team members currently perform is not directly reimbursable under the fee-for-service payment model, meaning that new payment models are needed to facilitate the growth of primary care teams that include RNs.
- Perhaps most important, many RNs are not exposed consistently to the full range of primary care content in the classroom or through instructional clinical experiences, which overwhelmingly focus on inpatient and acute care. As a result, RNs may lack skills and competencies essential to functioning effectively in primary care.

## Educating tomorrow's nurses

Changes such as these call not only for enlightened, capable leadership among non-acute providers, but for new emphases in nursing education.

"Nursing education programs have historically emphasized preparing students for inpatient acute care and medical and surgical nursing," wrote the authors of the National Academy of Science report on the future of nursing 2020-2030. "Consequently, too few nurses today are adequately prepared to practice in non–acute care settings. To address the growing need for primary care providers, educators will have to increase coursework and student clinical experiences in primary care settings, which in turn could lead to more graduates choosing careers in primary care and ambulatory and community-based settings."

In fact, more nursing schools are adding primary care content at the undergraduate level, says Joan Stanley of the American Association of Colleges of Nursing. In addition, nursing schools are providing nursing students with practical experience in non-acute care settings, including primary care.

"AACN has strongly endorsed the need to strengthen academic-practice partnerships in our ongoing work with the American Organization for Nursing Leadership and in our 2016 publication, 'Advancing Healthcare Transformation: A New Era for Academic Nursing,'" she says. "We also have encouraged schools to develop diverse partnerships, which include primary care, public health, and other non-acute care partnerships."

The result – it is hoped – will be growing enthusiasm on the part of nursing graduates to work in non-acute-care settings.

"Over the past five years or so, we had seen a great interest among nursing graduates who want to practice in ambulatory care," says Gilland. "They understand that tackling our healthcare crisis starts in the non-acute-care setting." ■

## Nursing stats

- An estimated 600,000 baby boom RNs are expected to leave the workforce by 2030, per the National Academy of Medicine's "Future of Nursing: 2020-2030" report. "The exit from the workforce by so many experienced RNs (about 70,000 per year) means that health care delivery organizations that depend on RNs will face a significant loss of nursing knowledge, clinical expertise, leadership, and institutional history."
- Forty-two percent of RNs in private medical practice are older than age 50.
- Just 5% of RNs work in a private medical practice (clinic, physician), while 27% work in an inpatient unit (not a critical access hospital), 11% in a critical access hospital, and 9% in a hospital-sponsored ambulatory care setting, per the NAM report.
- Based on findings from the American Association of Colleges of Nursing's annual survey conducted in Fall 2020, nursing programs offered at the entry-level baccalaureate, master's and Doctor of Nursing Practice have seen more than 15 years of continuous enrollment growth.

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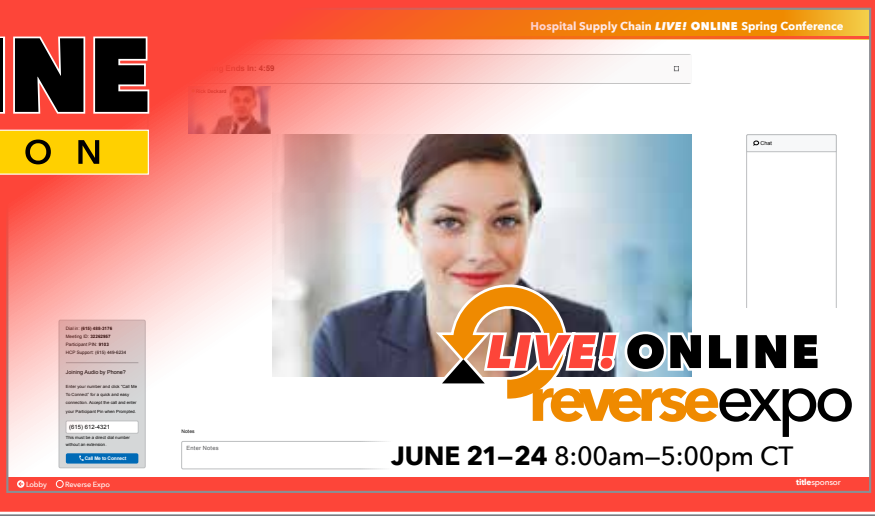


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# Retaining the Workforce

**Health systems explore ways to recruit, retain staff amid variant surge; prepare for long-term changes**

Twenty two percent of nurses providing direct patient care indicated that they may leave their current position within the next year in a recent McKinsey survey.[1] A significant strain exists in the healthcare workforce due to the COVID-19 pandemic. Health systems recognize the unique challenge and are responding with wage increases, recruitment increases and one-time bonuses. These are the top tactics used during the past three months to maintain and retain a strong nursing workforce.[2]

Nursing turnover and vacancy rates have increased four to five percentage points in the past 12 months. This is all during a time when health systems are trying to catch up to meet increased demand as patient volumes return and exceed 2019 levels in the U.S. Expanded clinic hours, increased physician productivity expectations, optimized operating room scheduling and expanded operating room hours are all critical challenges hospitals cite[3] and to meet them lies on the capacity and well-being of their healthcare workforces.

**Operations impacted**

Health systems have had to change their care model, reduce inpatient capacity, report reductions in operating room and ambulatory clinic capacity, increase emergency department diversion and increase length of stay as more than 80% of respondents reported continued challenges with nursing workforce coverage. Challenges with broader clinical support staff coverage was reported by 60% of respondents. The McKinsey survey represented 100 respondent hospitals across the U.S. with more than 200 beds, collectively representing about 10% of all hospital beds in the country.

**Hard hit South**

Hospitals are making do with available resources and staff in the hard hit states in the South. Hospitals in Georgia had to scale back services due to lack of staff and some halted elective surgeries. According to The Atlanta Journal-Constitution, experienced nurses are quitting in Georgia, changing jobs or just hanging on. The Delta variant struck the South harder than other areas of the country and hospital staff are exhausted battling COVID-19's fourth wave.

Because of healthcare staffing shortages in Mississippi, 771 medical-surgical and 235 ICU beds were reported unused in August. More than 70 Mississippi hospitals had collectively asked the state for about 1,450 healthcare workers to make use of the available beds during the Delta variant surge. A recent health order certified Mississippi's Emergency Medical Services workers to provide care for patients in state-licensed hospitals as Mississippi saw its highest number of coronavirus-related hospitalizations since the virus entered the state in March 2020.

According to McKinsey, healthcare systems are managing short-term, pandemic-era workforce challenges and preparing for long-term changes to enhance the workforce and patient experience. ■

[1] 2021 McKinsey Future of Work in Nursing Survey
[2] McKinsey COVID-19 Hospital Insights Survey (July 2021)
[3] McKinsey COVID-19 Hospital Insights Survey (July 2021)

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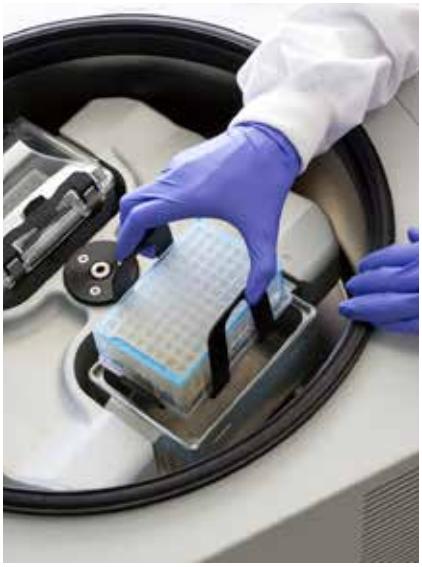
# Chain of Custody

## Why automation matters when it comes to patient safety and efficiency in tracking medial samples.

**As Senior Technical Director, Histopathology at Massachusetts General Hospital, Denise Bland knows the importance of the work her department does tracking medical samples, and the need for reliable systems and equipment to do her job.** With a chain of custody process, lab technicians in clinical laboratories are considered the responsible custodians of those materials. As a critical component of the healthcare system, an unbroken chain of custody ensures the integrity of and validity of those samples.

"In today's world, going back years or even decades to test on those blocks is not uncommon," she said. "There are state regulations and federal regulations governing that we be responsible custodians of this tissue for the patients, while improving our process on an annual basis to ensure that we are doing what we can to retain these valuable assets."

Bland discussed the importance of chain of custody for healthcare systems and how the right equipment can simplify those processes in a recent industry webinar.



### Maintaining standards

By instituting a chain of custody process for tracking and documenting patient samples, you are ensuring accountability and traceability, Bland said. A well-maintained chain of custody process starts from the time that the material was collected and continues through every step of testing and analysis in the facility. However, many modern healthcare systems are using antiquated processes and tools to track samples, which can create problems with efficiency and organization within clinical labs.

Maintaining chain of custody standards for large healthcare systems can be extremely challenging, even with a solid process in place. Massachusetts General Hospital's lab was using a manual process that complicated the chain of custody. "It was a very laborious system. It left room for error, because there wasn't a lot of traceability and accountability. I've wanted automation for a while, but I hadn't seen a system that I thought was truly going to meet all our needs."

When Epredia™, a precision cancer diagnostics company, and its distributer, Fisher Healthcare, offered Bland a demo of the Arcos™ management system, she saw exactly what it could do for her lab right away. "We were early adopters, and it's exactly what we wanted." Arcos block management and ArcosSL™ slide management systems help labs minimize errors, increase productivity and keep the laboratory's resources focused on the patients.

After implementing Arcos for her lab, Bland noticed a vast improvement in the functionality of her processes. "Since I started using Arcos, I haven't lost a single asset," she said. "So far, Arcos has been foolproof. No system prior to Arcos has been foolproof."

### Implementing an automated tool

Automation is designed to improve outcomes and simplify daily processes, but it also allows laboratories like the one Bland works in to improve the chain of custody. She said, "One thing that we do here is you need to collaborate with the pathologist because that helps maintain chain of custody. As the gatekeeper, you must go through me. Having automation allows me to be a much stronger gatekeeper than a manual process." Arcos automates the archiving and retrieval of tissue blocks and slides, ensuring deeper security for the chain of custody. With enhanced traceability and smart storage for patient materials, Arcos is built to simplify.

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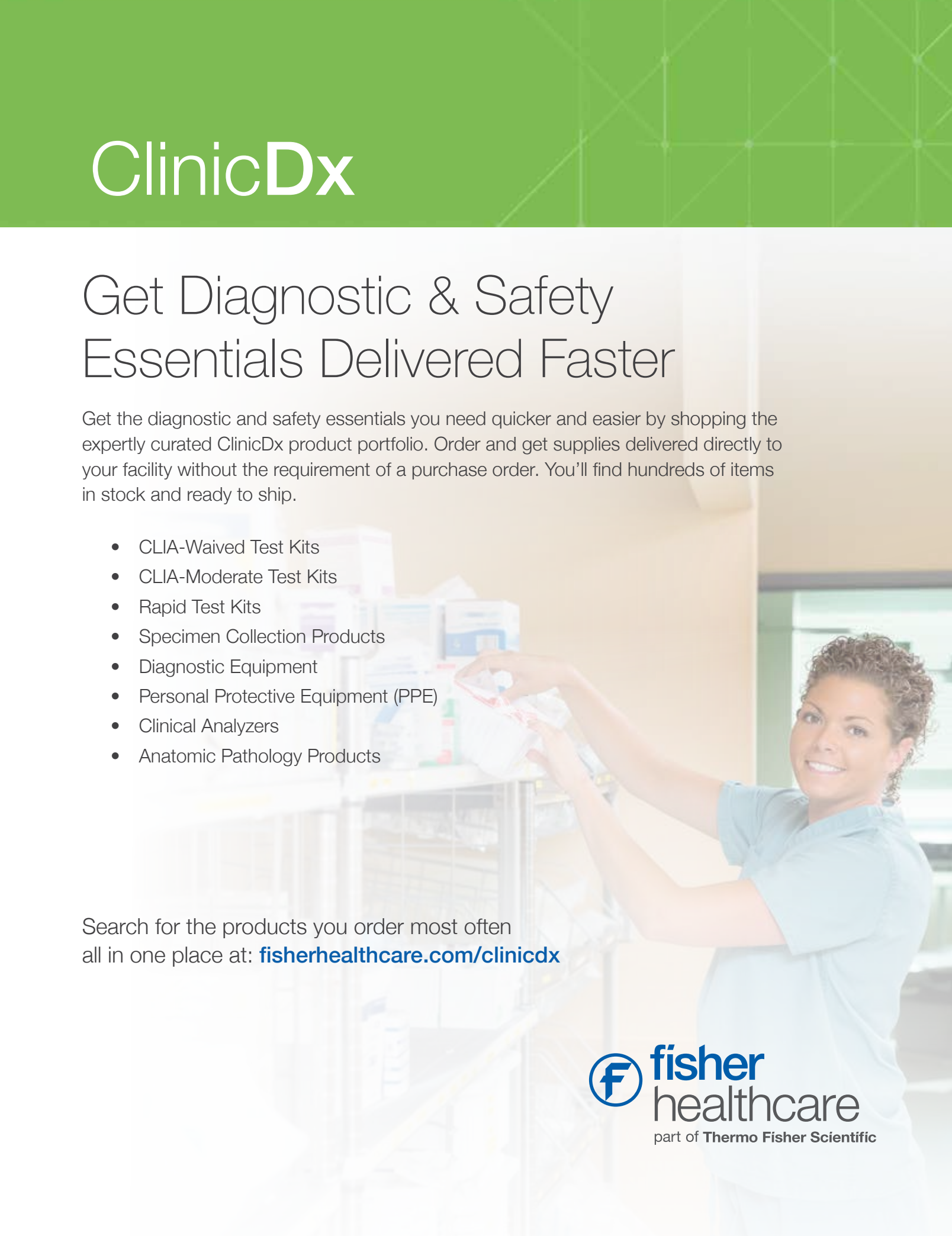

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# Capstone Leadership Institute, Class of 2021

**In its second year, the Capstone Leadership Institute is still providing valuable lessons for healthcare supply chain professionals that are looking to develop a core group of skills and expand their knowledge.** Despite surges in COVID-19 cases and the emergence of the Delta variant, the Capstone Leadership Institute leveraged Zoom classes and lectures. This virtual component allowed for face-to-face interaction that resulted in more connectivity between the students and subject matter experts.

Seasoned supply chain leaders were looking for an opportunity for more leadership development training, so Capstone created a member-led council of high-level supply chain leaders to discuss how the organization could help. Those conversations created the Capstone Leadership Institute. The Capstone Leadership Institute is a value-added education platform built to empower and prepare the future leaders of the healthcare supply chain. This comprehensive program is exclusively for Capstone Health Alliance members, and has been designed to expand the knowledge of current and future leaders for the advancement of quality healthcare.

The 2021 Capstone Leadership Institute courses covered topics like the importance of physician and provider relationships, contract management, value analysis, forecasting, group purchasing organizations and inventory management.

Tim Bugg, Capstone President and CEO congratulated the class of 2021, saying, "I am very proud of this year's graduate class. These hard-working individuals did an outstanding job in completing the curriculum while continuing to deal with the pandemic and the Delta variant. What an amazing group of professionals! Congratulations class of 2021!"

Even in the midst of an ongoing pandemic, students were eager to start classes. Patrick Henry, Contract Manager, Mon Health Medical Center, said, "The Capstone Leadership Institute provided a myriad of courses that allowed me to temporarily step away from my job responsibilities to focus on education, growth, and career development." His primary goal was to gain additional knowledge from subject matter experts about the various aspects of supply chain management that he hadn't experienced firsthand.

"Mike Rawls led a course in March 2021 focused on disaster preparedness," Henry said. "At that point in time, we were all one year into the pandemic, so we had a lot to discuss. Mr. Rawls discussed the various facets of disaster preparedness, one being a PPE stockpile. PPE was still scarce, so creating a stockpile was difficult due to allocation restrictions."

The real-world applications of insights like this are invaluable to the students who will go back to their organizations with a newfound knowledge of which steps to take next. Because of Mike Rawls' course, Henry and his team were able to create a sufficient inventory of critical PPE, helping Mon Health throughout the multiple waves of COVID that we experienced in 2021.

For Tara Torrence, Director of Pharmacy, Granville Health System, the time she spent with the Capstone Leadership Institute proved to be a valuable commodity. She said, "At first, I thought it would be daunting to commit the time investment to this. Time is my most precious resource, and I am already spread so thin. I found that I looked forward to that 1-hour class on my calendar every other Tuesday and always took something away."

As for the courses that proved to be most useful, she also found Mike Rawl's course valuable. "Mike Rawls presented the idea that vendors are our teammates, which was a new concept to me," she said. "Blair Childs outlined the distinct differences in the primary approach to healthcare and reminded us there are no easy solutions. Additionally, Li Ern Chin highlighted the importance of building relationships with providers and physicians."

**This comprehensive program is exclusively for Capstone Health Alliance members, and has been designed to expand the knowledge of current and future leaders for the advancement of quality healthcare.**

Torrence explained how she might apply these lessons to the real world, saying, "Application of any idea takes diligence and commitment. We have to be able to recognize the opportunity for application, meaning we have to be looking for the opportunity. For example, I was reminded to take the opportunity for that short conversation to build the relationship. When I'm talking to vendors, I can approach that conversation differently and ask them to be on my organization's team."

With two years of success for the Capstone Leadership Institute, plans for a third year are already underway. Applications are being accepted from Capstone members for the Class of 2022 through December 1. Please email kscott@capstonehealthalliance.com for more information. ■

## The 2021 Class of the Capstone Leadership Institute

- Hannah Bentley, Buyer, Catawba Valley Medical Center
- Mark Boateng, MM. Warehouse Supervisor, BayHealth Medical Center
- Tanja Bonnette, Value Analysis Specialist, Jefferson Regional Medical Center
- Ginger Brooks, Clinical Value Analysis Manager, Greater Baltimore Medical Center
- Brandi Cooley, Lead Distribution Technician, Ephraim McDowell Regional Medical Center
- Dusti Gorby, Buyer/Recall Specialist, St. Mary's Medical Center
- Amanda Hallmark, Contract Coordinator, East Alabama Medical Center
- Lucas Han, Supply Chain Manager, Adventist HealthCare
- Patrick (PJ) Henry, Contract Manager, Mon Health Medical Center
- Dawn Motiejunas, National Account Manager – Acute Care, CHAMPS GPO
- Jonathan Palardy, Pharmacy Buyer, Greater Baltimore Medical Center
- Dennis Reed, Purchasing Manager, St. Joseph's/Candler
- Amanda Smith, Clinical Resource Manager, Riverside Health System
- Tara Torrence, Director of Pharmacy, Granville Health System
- Megan Valentine, Purchasing Team Lead, St. Joseph's/Candler
- Donna Webster, Contract Coordinator, TidalHealth Peninsula Regional

# Industry News

### LifePoint Health, Kindred Healthcare launch new company, ScionHealth

LifePoint Health and Kindred Healthcare announced plans to establish a new healthcare company operating under the name ScionHealth upon closing of their previously announced transaction.

Headquartered in Louisville, ScionHealth will consist of 79 hospital campuses in 25 states, including Kindred's 61 long-term acute care hospitals and 18 of LifePoint's community hospitals and associated health systems.

ScionHealth will be led by a management team drawing from both LifePoint and Kindred. Rob Jay, current EVP of integrated operations at LifePoint, will serve as CEO of ScionHealth.

At the close of the transaction, LifePoint will combine its 65+ remaining hospital campuses as well as its network of physician practices and outpatient centers with Kindred's rehabilitation and behavioral health businesses.

LifePoint will continue to be headquartered in Nashville, and David Dill will remain its president and CEO.

LifePoint and ScionHealth will both be well capitalized businesses focused on growth and grounded in commitments to outstanding patient care and quality outcomes. The companies will have separate leadership and boards of directors.

Each ScionHealth hospital will operate under the same name it does today.

Upon the completion of regulatory approvals and satisfaction of customary closing conditions, the acquisition of Kindred and the launch of ScionHealth are expected to be completed by the end of the year.

### Intermountain Healthcare asks Utahans to donate used medical supplies as global supply chain issues cause critical shortages

Yet another sign of the ongoing supply chain issues affecting the world – Intermountain Healthcare, Univ. of Utah Health, Steward Health Care, and the Utah Hospital Association are organizing a community drive to collect gently used medical supplies.

"The COVID-19 pandemic disruptions to the global supply chain is impacting the ability of hospitals to receive crutches and walkers due to an international shortage of aluminum," Intermountain said in a press release.

"I've never seen a shortage of crutches this significant, and normally it's an afterthought because they're always so readily available," said Joey Kamerath, MD, senior medical director of rehabilitation services at Intermountain Healthcare.

Intermountain said the shortage is happening at a difficult time for hospitals because November and December are the busiest time of year for elective surgeries, especially in orthopedics, which often require walk assist devices for recovery.

Once collected, caregivers will sanitize and inspect the devises for safety before being sent to hospitals for use. They will then be given to patients with a note letting them know it was generously donated by someone in the community. All devices that can't be repaired will be properly recycled.

The donation drive, LeanOnUtah, begins October 30 at several locations around the state. Collections will also occur on November 6 and 13 at the same locations and times.

### Vizient announces milestone of 100 million additional units of essential meds through Novaplus Enhanced Supply Program in under two years

Vizient, Inc. (Irving, TX) announced that its Novaplus Enhanced Supply Program has brought 100 million additional units of inventory of essential medications to the supply chain, many of which are used to treat life-threatening illnesses.

The program was launched in 2020 and protects against shortages for these essential medications should a supply chain disruption occur.

The program now includes 79 essential medications and over 300 unique presentations of these drugs. These include antibiotics, blood thinners, certain chemotherapy drugs and medications required in the operating room.

Medications identified as essential by Vizient include acute treatment drugs with no alternatives, chronic treatment drugs with no alternatives and high impact drugs whose alternatives are less clinically desirable.

The Novaplus Enhanced Supply Program provides supply assurance for participating Vizient members through increased inventory commitment from suppliers and

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members for essential medications. The program proved successful in the spring of 2020 when demand for the sedative propofol, used to treat COVID patients on ventilators, spiked 272%. Through Novaplus Enhanced Supply program, 676,000 additional units of the sedative had already entered the market at the time of the spike.

## Premier, Inc. and Resilinc expand partnership to enhance supply chain visibility, sustainability

Premier, Inc. (Charlotte, NC) and Resilinc (Milpitas, CA), a supply chain monitoring, mapping and resiliency solution, announced a new collaboration with the aim of driving greater supply chain transparency, risk mitigation and business continuity for U.S. healthcare providers.

The Resilinc and Premier initiative expands Premier's supply chain mapping footprint to encompass more than 1,300 suppliers and 15,000 sites.

Leveraging Resilinc's Multi-Tier Mapping service will give Premier visibility down to the site, product and ingredient/part levels for its top supplier partners, allowing for greater transparency into potential vulnerabilities to help ensure continuity of supply – a vital capability alongside our nation's still-limited knowledge on the manufacturing locations and production volume for American drugs and medical products.

Premier will also utilize Resilinc's RiskShield, which provides comprehensive supplier risk scores based on geographic diversity, recovery time, quality, Environmental, Social and Governance (ESG) and sustainability practices, and other key criteria.

In addition to enhanced supply chain mapping and supplier risk assessments, Premier will leverage EventWatchAI, Resilinc's 24/7 monitoring service. EventWatchAI uses artificial intelligence and natural language processing technology to monitor for over 50 types of potentially disruptive events across millions of news, social media and government agency feeds in 189 countries and 100 languages.

Premier has partnered with Resilinc since 2018, during which time they have collaborated on multiple projects intended to increase the maturity of global healthcare supply chains. Key projects include The Exchange, a cloud-based platform for hospitals to interact with vetted peer organizations to identify, locate and exchange critical medical items, and the Healthcare Transparency Initiative, a first-of-its-kind collaboration focused exclusively on improving transparency and reducing disruptions in the healthcare supply chain.

## Ascension, AdventHealth to unwind AMITA Health Partnership

AdventHealth (Altamonte Springs, FL) and Ascension (St. Louis, MO) announced they are "unwinding" their AMITA Health partnership, the joint operating company the organizations have partnered on for nearly seven years.

Amita Health, a joint venture providing healthcare services to the greater Chicago area, includes 15 acute care hospitals, four specialty hospitals, and immediate and outpatient care centers.

The two organizations said they have determined that "going forward separately is in their collective best interest in order to more nimbly meet the changing needs and expectations of consumers in the rapidly evolving healthcare environment."

Following the transition, AdventHealth and Ascension will operate their individual hospitals and care sites in the Chicago area. The organizations say there will be no disruption to patient care.

The health systems didn't provide details about what prompted the decision to split up the partnership.

## Warehouse availability fell to record lows in third quarter

Warehouse availability in the U.S. fell to record lows in the third quarter across the country, with industrial space all but disappearing near some of the country's busiest distribution hubs on the West and East Coasts.

The average national industrial vacancy rate was 4.1% in the third quarter, according to Cushman & Wakefield Inc. The commercial real-estate firm says that this is the lowest it has ever recorded in data going back to 1995.

Real-estate firm CBRE Group Inc. says that the third-quarter demand for industrial real estate exceeded supply by 41 million square feet, pushing the vacancy rate down to 3.6%, compared to 4.3% in Q3 2020, and to the lowest level in data going back to 2002.

CBRE also found the vacancy rate for warehouses near the ports of Los Angeles and Long Beach, California, reached 1% in Q3. The region's vacancy rate was 2.3% in the same quarter of 2020, the *Wall Street Journal* reports.

On the East Coast, the Boston; central New Jersey; and Charleston, South Carolina, markets showed a 1.9% vacancy rate during the quarter, the lowest rates outside of the Los Angeles region.

The woes affecting manufacturing supply chains are also hobbling developers' ability to scale up capacity faster, says Jason Tolliver, head of logistics and industrial research at Cushman & Wakefield.

"Many clients who are looking to develop, they're not able to get steel to construct their buildings right now through 2022," Tolliver said. ■

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