

Leading healthcare organizations are overcoming the communication barriers presented by a highly mobile workforce with secure messaging and 5G. Healthcare organizations are making the requisite investments in secure messaging and 5G to overcome clinician communication challenges of a highly mobile workforce.

## Improving Clinical Communication and Collaboration by Moving from Pagers to Secure Messaging

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**Questions posed by:** T-Mobile for Business

**Answers by:** Lynne A. Dunbrack, Group Vice President, Public Sector, IDC Health Insights, and Katie Evans, Senior Research Director, Worldwide Small and Medium Business Research

### Q. Why are healthcare organizations making the shift from pagers to over-the-top secure messaging?

**A.** Clear, timely, actionable, and secure communications are imperative in healthcare. In an environment where every second counts, how you communicate can be a matter of life and death. A highly mobile workforce and multiple communication channels — voice, landlines, mobile devices, email, and paging — make it challenging for clinicians to communicate efficiently.

Calling and paging a health professional who may or may not even be in the building disrupts the clinical workflow. It causes needless delays and frustrates senders and recipients, as multiple missed calls and callbacks are frequently required to reach the parties.

Overhead paging — using the facility's public address speaker system — is often inefficient, as it assumes the paged party is in the building. In addition, many organizations use unencrypted alphanumeric/text pagers or short message service (SMS), both of which could violate the Health Insurance Portability and Accountability Act (HIPAA).

Rationalizing communication changes by replacing pagers with clinician communication and collaboration solutions improves care coordination while cutting costs associated with maintaining, repairing, and replacing outdated legacy pagers. Eliminating pagers also reduces the number of devices healthcare providers must carry to stay in contact with their colleagues, as well as the number of devices that IT needs to support.

IDC's March 2024 *U.S. Healthcare Provider IT Technology Survey* results show that 50% of hospitals with 200–499 beds and 39.2% of medical practices have deployed — or plan to deploy in the next 12 months — clinical collaboration tools to address healthcare personnel shortages. These solutions leverage mobile applications and/or devices that provide additional communication and collaboration capabilities, including voice communication such as smart badges.

## Q. How will secure messaging and clinical communication and collaboration improve patient care?

**A.** The benefits of secure messaging and clinical communication and collaboration solutions extend to patients, healthcare providers, and even the financial bottom line of small and medium-sized business (SMB) healthcare organizations.

First and foremost, addressing fragmented communications by deploying secure messaging and clinical communication and collaboration solutions significantly improves patient safety. Improved communication among team members and between care teams at handoff points can help mitigate adverse medical outcomes, including serious sentinel and never events. The Joint Commission's Sentinel Event Data 2023 Annual Review reports that poor communication among healthcare providers is one of the leading causes of "sentinel events" — a patient safety event that results in death, permanent harm, or severe temporary harm. Many "never events" — for example, surgery on the wrong part of a patient's body, leaving a foreign object in the body after surgery, or discharging new parents with the wrong newborn — are the result of miscommunication.

Improving healthcare provider communication also drives clinician and patient satisfaction — and in the case of patient satisfaction, impacts the SMB healthcare organization's bottom line. Overhead paging is disruptive to clinical workflows when healthcare providers are called away from their patients to return an urgent page. It also creates a noisy environment that is not conducive to patient rest or sleep, which affects patient recovery and overall satisfaction.

A hospital's noise level and the quality of physician and nurse communication with their patients are evaluated in the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS), a patient satisfaction survey developed by the Agency for Healthcare Research and Quality (AHRQ). Patient satisfaction scores affect Medicare reimbursement. They are also visible on Medicare's Hospital Compare website, along with the hospital's star rating. Hospitals that score well on these industry metrics are more likely to be selected by patients for inpatient care when they have a choice.

## Q. What are the common use cases for secure messaging?

**A.** Secure messaging apps use encryption to ensure that communications between healthcare providers and with patients are secure. They replace over-the-top messaging apps and native text messaging apps on mobile phones that send messages in clear text, violating the HIPAA requirement that protected health information be encrypted. There are four-tiered penalty ranges for violating HIPAA, with maximum penalty caps up to \$1.5 million for all violations of an identical provision during a calendar year (see [link](#) for more information). A person who knowingly obtains or discloses individually identifiable health information in violation of the privacy rule may face criminal penalties including 1 to 10 years of imprisonment.

Use cases for secure messaging run the gamut from simple messages responding to colleagues' questions to more involved messages that require integration with core clinical systems. Examples include:

- » Facilitating communication between hospitalists, nurses, and specialists
- » Communicating with home health nurses

- » Updating anesthesiologists when patients are ready for surgery
- » Calling obstetricians to the labor unit when their patients are ready to deliver or in distress
- » Activating catheterization labs
- » Alerting attending physicians that STAT diagnostic or radiology reports are available
- » Sending images to specialists
- » Communicating with patients (e.g., responding to calls or emails, letting them know they are ready to check-in at the front desk or that an exam room will be ready for them shortly)
- » Communicating with patient family caregivers (e.g., providing surgical updates, advising them their loved one is about to be discharged)

Hospitals should consider rolling out secure messaging first with the IT group. The IT staff can troubleshoot and resolve any early issues before deploying the secure messaging app more widely to clinical teams.

Other best practices include identifying and understanding the needs of communication workgroups. This team approach creates the necessary critical mass among clinicians who regularly communicate with each other — activity that will increase the secure messaging app's utilization rate. Hospitals should run awareness campaigns educating healthcare professionals about the convenience of using a secure messaging app and how its benefits extend to improved communications promoting patient safety and quality care. Remind healthcare professionals that secure messaging will also enhance the patient and clinician experience.

## Q. What factors are most important to healthcare organizations in choosing a vendor?

**A.** One of the first decisions a healthcare organization makes is whether it wants to deploy a comprehensive communication and collaboration solution or a secure provider text messaging point solution.

- » Secure provider text messaging solutions offer secure, over-the-top text encrypted messaging that complies with HIPAA and other privacy and security regulations regarding the secure transmission of health information. Most robust clinical communication and collaboration solutions include a secure text messaging module.
- » Clinical communication and collaboration solutions provide a secure, scalable, and integrated communications platform that combines voice and data, thus enabling healthcare professionals to use the right device for clinical communication and collaboration to support a variety of clinical workflows.

Key technologies to support clinical communication and collaboration include email, telephone, voicemail, instant messaging (IM), videoconferencing, web conferencing, and short message service, which can be coordinated in various combinations in real time. Wireless LAN, voice over IP (VoIP), cloud and mobile infrastructure, and the widespread adoption of mobile devices by clinicians are important companion technologies.

Flexible connectivity options enable the solution to work inside and outside the hospital so that healthcare providers can communicate from anywhere using Wi-Fi or cellular connections. To that end, another important consideration is choosing a communication service provider that offers network access and usage services to connect communication devices to a commercial network (e.g., cellular, LPWAN, Wi-Fi, fixed wireless access).

## Q. What role does 5G play in improving clinical communications and collaboration?

**A.** 5G is the latest generation of cellular network technology being rolled out in the United States and many other parts of the world. It is made up of both an over-the-air radio signal and core network technology. 5G is an innovation accelerator for healthcare organizations looking to improve operational efficiency and transform the clinician/patient experience for better patient outcomes.

The healthcare industry is well suited to benefit from all three of 5G's performance enhancements — speed, latency, and density. Healthcare is inherently data and communication intensive. Capturing, transporting, and analyzing that volume of data — whether patient information or communication transmissions — requires an extraordinary amount of bandwidth and data rates. This is precisely what 5G was designed to do, particularly when the patient requires treatment outside the boundaries of a medical facility.

There is a diverse set of uses for 5G that have been discussed in the healthcare space and vary in terms of deployment and go-to-market complexity. Some use cases are limited to a healthcare facility, while others address patients and service providers in the field. They also run along a continuum from near-term viability to a much more distant communication time horizon.

Despite headlines of 5G robots providing telesurgery and 5G drones delivering medications wherever patients are, the near-term reality of 5G is much less flashy and much more pragmatic. Communication and collaboration may not have the headline-driving panache of 5G robots or drones. But enabling providers with 5G connectivity and tools can deliver a better, more consistent experience and improve communication between healthcare providers and their patients, regardless of their connectivity.

## About the Analysts



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Lynne Dunbrack is group vice president for the Public Sector, which includes IDC Government Insights and IDC Health Insights, plus Industry Operations. She manages a group of analysts who provide research-based advisory and consulting services for payers, providers, accountable care organizations, IT service providers, and the IT suppliers that serve those markets. Lynne also leads IDC Health Insights' Connected Health IT Strategies program and is the practice lead for Future of Operations.



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