BECKER'S HEALTHCARE

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2024 STATE OF HEALTHCARE COLLABORATION

How Communication Inefficiencies Impact Clinician Productivity

Many hospitals and health systems rely on more than one communication system to support their clinical and operational workflows. With the urgent demand for clinicians and other healthcare employees to improve productivity, non-integrated communication systems impede productivity, frustrate clinicians, and negatively impact care outcomes and costs.

Communication systems in the healthcare setting

Hospitals and health systems use a variety of tools that are considered communication systems. These include land-line phones, faxes, pagers, EHR messaging, and secure texting apps.

These communication inefficiencies create an environment best described as "communication noise." When care teams are forced to use a variety of communication tools depending on circumstance, it creates confusion and frustration when they can't easily find the people or access the information they need. As a result, clinicians are inundated with notifications from different sources and spend significant time searching for the right person to contact, which delays care delivery.

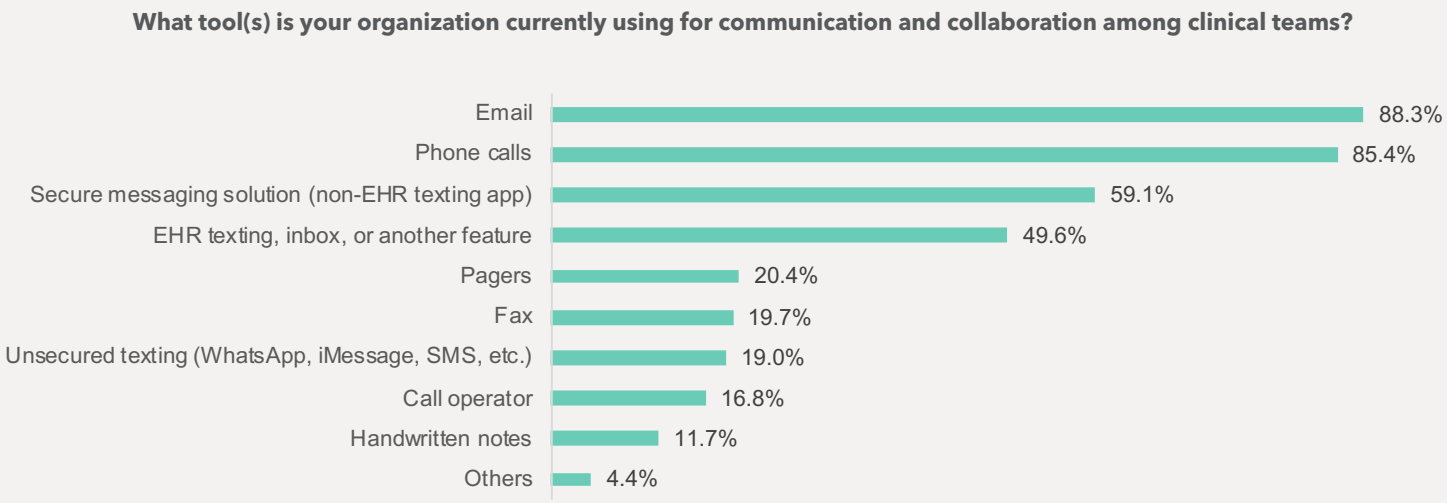
To learn more about the impact of healthcare inefficiencies on care coordination, the clinician experience, and the bottom line at hospitals and health systems, Becker's Healthcare and TigerConnect conducted a survey in Q2 2024 among physicians, nurses, and c-suite leaders.

The survey examined 7 types of inefficiencies that create communication noise:

- **Searching for Contacts:** Clinicians often waste valuable time searching for the right contact due to outdated or inaccurate schedules, leading to frustration and delays.
- **Miscontacting People:** Contacting the wrong individual not only wastes time but also disrupts the workflow of both parties involved.
- **Waiting for Responses or Results:** A lack of steady information flow means care teams are left waiting for calls back or test results, interrupting the continuity of care.
- **Switching Between Multiple Communication Systems:** Constantly toggling between different platforms and applications slows down workflows and reduces efficiency.
- **Dealing with Interruptions:** Frequent alerts and pages, especially from outdated systems, significantly disrupt focus and increase cognitive load.
- **Filtering Through Information:** Clinicians face the challenge of needing to distinguish which alerts, notifications, and messages are most important.
- **Deciding with Insufficient Information:** Receiving incomplete alerts, notifications, or messages that require clinicians to seek clarification before they can make a decision.

Two experts from TigerConnect – Ashley Franks, RN, chief nursing informatics officer, and Will O'Connor, MD, chief medical information officer – shared their thoughts on the survey results and discussed how unified clinical communication and collaboration (CC&C) solutions can directly address communication noise.

Figure 1: Tools that clinical teams are using for communication and collaboration



Communication noise is everywhere, but its impact ripples through U.S. healthcare system

The Becker's-TigerConnect survey found that multiple communication systems are breeding communication noise across hospitals and health systems. A vast majority of clinicians (85%) experience the 7 types of communication inefficiencies "at least sometimes," and 40% experience it frequently.

Nurses and those on the frontlines are even more exposed – over half (54%) experience it frequently and 90% of respondents in these roles experience it "at least sometimes".

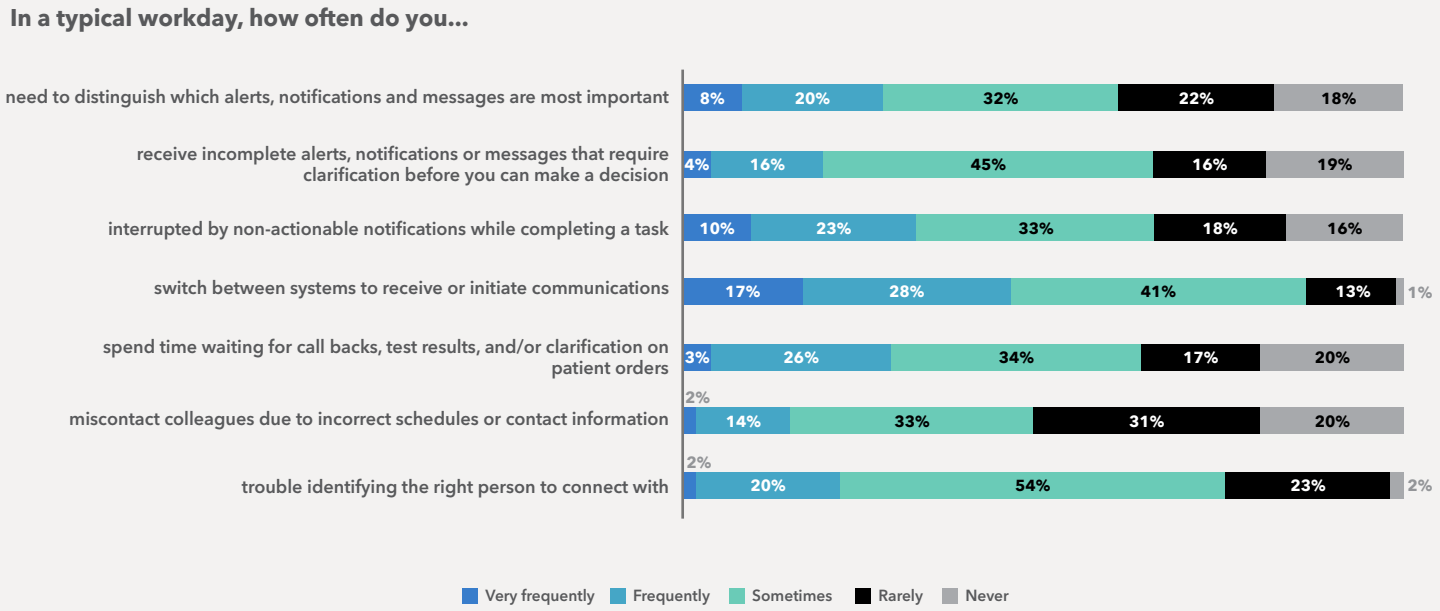
The sheer number of healthcare communication and collaboration tools that survey participants indicated they're using was both surprising and concerning to Franks and Dr. O'Connor. "It's ridiculous that having this many communication tools is still the norm," Dr. O'Connor said. "Email is inefficient and slow, and texting on non-secure devices can't solve the healthcare-specific workflow challenges around finding the right person or being able to receive data automatically from a system."

While communication inefficiencies can take multiple forms, the survey participants indicated the most common are:

- **Switching** between different communication tools (86%)
- **Searching** for the right person to connect with (76%)
- **Deciding** with insufficient information (66%)

With healthcare organizations using so many different communication tools, it's no surprise that context switching between applications is a prevalent issue among healthcare employees. Not only does relying on more than one communication tool cause cognitive overload, but it also creates a variety of issues such as alert fatigue, wasted time spent seeking clarification on incomplete alerts or notifications, and wasted time spent searching directories for the right person to contact because it's unclear who's on call based on information available in the communication tools. "Even when you think you've found the right person, that may not be the case," Dr. O'Connor said. "It happens all the time. Not everyone is a user in EHR-based communication systems. When it's not clear who to connect with, messages often are sent to the wrong person, which delays care."

Figure 2: How often survey respondents experience different kinds of inefficiencies



If an incomplete alert or message has been sent, clinicians must ask for more clarification and then wait for a response. This prolongs the decision-making process for patients' care plans, treatments, tests, transfers, and discharges.

"A clinician could be getting several messages – a phone call, a page, a text and an email about the same topic," Franks said. "They could all be about the same patient, but now the information is in several different places and it's up to the recipient to filter through the content and make a decision. All of these tasks slow their ability to make a decision."

The risks and costs associated with communication inefficiencies can't be ignored

Each incident of communication inefficiency may take just a few minutes. When that time is added up, however, across an entire shift and the hundreds of people working in an organization, the impact is significant. Both patient safety and care quality are affected by communication inefficiencies. Care delays can lead to morbidity and mortality.

"Time is tissue – the longer it takes you to treat people, especially with emergency conditions like strokes or heart attacks, the worse their outcomes are. This obviously has a negative effect on patients, and it can impact quality ratings and reimbursements for hospitals," Dr. O'Connor said.

Staff productivity is also a common casualty of poor communication. Clinicians try to do as much as they can during their shift, but they often must work past the shift end because communication inefficiencies prevent them from completing tasks on time. "This is a big challenge for nurses," Franks said. "It slows them down and causes frustration. That leads to job dissatisfaction, lower morale, and potentially turnover. There's a domino effect."

One nurse leader who participated in the Becker's-TigerConnect survey noted, "I have worked in healthcare since there was only one way to reach a nurse. I do believe that having seven-plus ways to contact someone breeds interruptions and alarm fatigue, as you inevitably get seven notifications per message because people try one system after another."

In addition, healthcare inefficiencies pose a significant financial risk. When staff can't communicate easily, it leads to inefficiencies which delay consults, care decisions, and discharges. These delays often increase patients' average length of stay and slows throughput, which drives up costs. Without a dedicated communication and collaboration system, it takes longer to move patients through emergency departments and operating rooms. The result is lower profits for hospitals and health systems.

Many C-suite leaders are unaware of the communication inefficiencies that exist in their organization

When it comes to how communication inefficiencies affect healthcare organizations, the Becker's-TigerConnect survey found a significant disconnect between the perceptions of clinical staff and C-suite leaders.

While 43% of front-line staff surveyed view these everyday inefficiencies as affecting patient throughput, 0% of C-suite respondents indicated they perceive the same. In addition, just 4% of C-suite respondents indicated that it is impacting staff morale and turnover, compared to 50% of non-C-suite respondents. Dr. O'Connor noted his surprise in this finding and the apparent disconnect – particularly the lack of awareness among C-suite leaders about what's really happening on the front lines in their organizations.

Such divergent perceptions could possibly stem from the fact most executives don't use the wide variety of communication and collaboration tools that front-line teams use every day, as their workflows are not shift-based. Another potential explanation is that executives don't have insight into how increased patient volume leads to increased interaction with communication tools, which in turn burdens clinicians. As a result, they may see communication inefficiency as an isolated occurrence rather than a persistent, systematic issue.

Organizations can address inefficiencies with a unified communication system

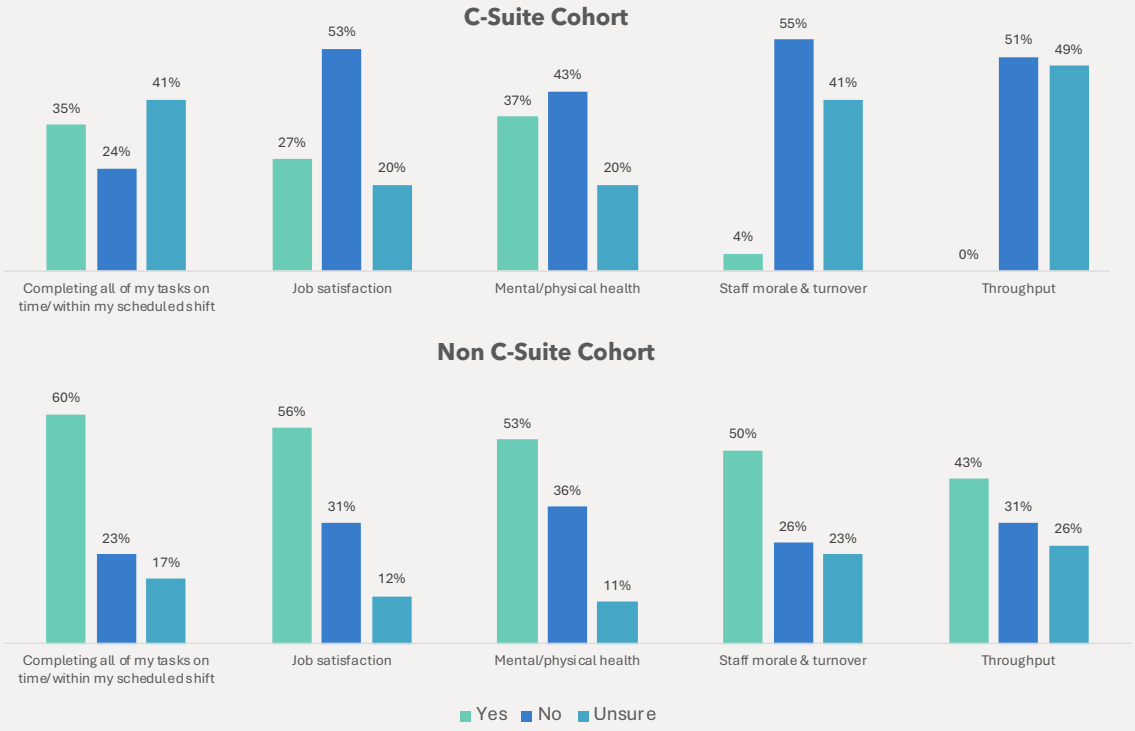
The good news: communication noise is a solvable problem. Franks and Dr. O'Connor described how a unified clinical communication and collaboration system can address many of the pain points survey respondents raised.

"Hospitals and health systems need to look beyond simple messaging solutions," Franks said. "They need a more robust system that provides role-based messaging, resident and provider scheduling, alarm management and event notifications, and patient engagement, so the organization can scale and expand over time."

The root cause of communication noise is the lack of a single, unified communication system. Care teams need a solution that is purpose-built for shift-based care delivery, so they can find the people and data that they need all in one place.

If health systems want to reduce communication noise, they need to develop a communication strategy. A good first step for your communication strategy might include consolidating the number of communication methods, so everyone uses a single platform. This eliminates the problem of some people using landline phones for communications, while others are using email, pagers, or other tools like EHR chat.

Figure 3: Survey respondents' reflections on the impact of communication inefficiencies



It's also essential to deploy a communication system that is outside the EHR, as teams often need to communicate with individuals who aren't EHR users. This is becoming more common as health systems expand care outside the four walls of the hospital to other facilities, and even offer home care programs.

EHR downtime is another important reason to deploy a communication system that lives outside the electronic health record. Scheduled maintenance windows routinely cause downtime for EHRs and unfortunately, cyberattacks have become commonplace. In many cases, cyberattacks have led to EHR outages lasting multiple days or even longer.

TigerConnect supports HIPAA-compliant messaging, scheduling, alarm management, and event notification on a single platform that integrates with other healthcare systems such as EHRs to leverage your data and push it to the point of care for context-rich collaboration. "We know how to get the right information to the right person at the right time," Dr. O'Connor said. "We understand the actual jobs that people do – how healthcare workers connect with each other. We make people easy to find, and we eliminate communication noise."

TigerConnect's advanced role-based messaging capabilities significantly reduce communication inefficiencies by enabling you to quickly find and message the right person, with the right data, at the right time. Unlike EHR chat, TigerConnect integrates with your hospital's scheduling systems to route messages to the appropriate roles. For instance, if you need a consult with the orthopedic specialist on-call, you can easily look up and message the specialist by their role rather than needing to know their name. When the consultation is ordered in the EHR, a TigerConnect message with relevant patient information is automatically sent to the right on-call specialist. This ensures that treatment teams, night shift staff, and other medical personnel can effortlessly connect with the right clinicians, enhancing efficiency and overall patient care.

It's important to remember that technology is just one piece of the puzzle for addressing communication inefficiency. People and processes are also critically important. "TigerConnect's clinical experts help engage staff, map out current workflows, identify areas for optimization, and share best practices to ensure that teams are successful," Franks said.

With TigerConnect, health systems are reducing average length of stay, increasing patient throughput in key areas like the emergency department and OR, improving sepsis bundle compliance, and enhancing their financial performance.

Addressing communication noise with strategy and intention can have a profound effect on staff productivity and satisfaction, patient outcomes, and a health system's finances.

"In today's complex healthcare environment, many issues in healthcare aren't solvable, but this one is," Dr. O'Connor said. "Communication inefficiencies cause a lot of frustration and burnout. If you fix this, nurses and physicians end up much more productive and much happier."

Appendix: Survey Cumulative Data

Number of Respondants	186				
Which of the following best describes your role?					
Nurse	40	21.5%	**Others**		
Physician	38	20.4%	Chief technology/digital/innovation officer	3	
Nurse manager/leader	35	18.8%	Physician leader	2	
Chief nursing officer (CNO)	26	14.0%	Assistant Director	1	
Chief Medical Officer (CMO)	18	9.7%	Chief Medical Information Officer (CMIO)	1	
Clinical informaticist	8	4.3%	Nurse Practitioner Leader	1	
Case manager/social worker	4	2.2%	CNIO	1	
Nurse practitioner	13	7.0%	RN Licensed Chief of Staff to the Chief Nursing Officer	1	
			Physician assistant	1	
			RN - Data Analyst	1	
			System UR Resource Nurse	1	

Please select the most accurate description of your organization. (select all that apply)					
Health system	104	55.9%	Critical access hospital	10	5.4%
Nonprofit	60	32.3%	For-profit	5	2.7%
Community hospital	30	16.1%	Independent hospital	4	2.2%
Academic medical center	28	15.1%	I am not employed by a healthcare organization	1	0.5%
Rural hospital	14	7.5%	Other healthcare organization	1	0.5%
Public	13	7.0%			

What is the size of your hospital or flagship facility?		
25 beds or less	6	3.2%
26 to 50 beds	3	1.6%
51 to 100 beds	9	4.8%
101 to 300 beds	26	14.0%
301 to 500 beds	27	14.5%
500 beds or more	110	59.1%
N/A	5	2.7%

In a typical workday, how often do you have trouble identifying (or finding) the right person to connect with?		
Very frequently	3	1.6%
Frequently	37	19.9%
Sometimes	100	53.8%
Rarely	42	22.6%
Never	4	2.2%

In a typical workday, how often are you interrupted by non-actionable notifications while completing a task? (e.g., interruptions from nuisance alarms)		
Very frequently	18	9.7%
Frequently	42	22.6%
Sometimes	62	33.3%
Rarely	34	18.3%
Never	30	16.1%

In a typical workday, how often do miscontact colleagues due to incorrect schedules or contact information?		
Very frequently	2	1.1%
Frequently	26	14.0%
Sometimes	62	33.3%
Rarely	58	31.2%
Never	38	20.4%

In a typical workday, how often do you receive incomplete alerts, notifications, or messages that require clarification before you can make a decision?		
Very frequently	7	3.8%
Frequently	30	16.1%
Sometimes	84	45.2%
Rarely	29	15.6%
Never	36	19.4%

In a typical workday, how often do you spend time waiting for call backs, test results, and/or clarification on patient orders?		
Very frequently	6	3.2%
Frequently	48	25.8%
Sometimes	64	34.4%
Rarely	31	16.7%
Never	37	19.9%

In a typical workday, how often do you need to distinguish which alerts, notifications, and messages are most important?		
Very frequently	15	8.1%
Frequently	37	19.9%
Sometimes	60	32.3%
Rarely	40	21.5%
Never	34	18.3%

In a typical workday, how often do you switch between systems to receive or initiate communications?		
Very frequently	31	16.7%
Frequently	53	28.5%
Sometimes	77	41.4%
Rarely	24	12.9%
Never	1	0.5%

In your view, what are the top 3 barriers to efficiently delivering care with your colleagues and front-line care teams? (Rank top 3 where 1 = the most significant barrier)						
	1	2	3	1	2	3
Miscontacting colleagues due to incorrect schedules or contact information	24	37	24	12.9%	19.9%	12.9%
Identifying (or finding) the right person to connect with	49	20	29	26.3%	10.8%	15.6%
Switching between systems (phones, EHR, messaging app, etc.) to receive or initiate communications	44	29	32	23.7%	15.6%	17.2%
Interruptions from non-actionable notifications while completing a task	24	27	34	12.9%	14.5%	18.3%
Waiting for call backs, test results, and/or clarification on patient orders	28	28	21	15.1%	15.1%	11.3%
Receiving incomplete alerts, notifications, or messages that require clarification before you can make a decision	7	18	31	3.8%	9.7%	16.7%
Distinguishing which alerts, notifications, and messages are most important	10	27	15	5.4%	14.5%	8.1%

Reflecting on what you selected as your top challenges in the ranking question, are these...						
	Yes	No	Unsure	Yes	No	Unsure
Care coordination	131	45	10	70.4%	24.2%	5.4%
Completing all of my tasks on time/within my scheduled shift	99	44	43	53.2%	23.7%	23.1%
Job satisfaction	90	69	27	48.4%	37.1%	14.5%
Mental/physical health	91	70	25	48.9%	37.6%	13.4%
N/A – I'm not sure	0	92	0	0.0%	49.5%	0.0%
Patient safety	107	71	8	57.5%	38.2%	4.3%
Patient satisfaction	125	15	46	67.2%	8.1%	24.7%
Patients leaving without being seen	63	90	33	33.9%	48.4%	17.7%
Quality of patient care	61	92	33	32.8%	49.5%	17.7%
Readmissions	61	101	24	32.8%	54.3%	12.9%
Staff morale & turnover	71	63	52	38.2%	33.9%	28.0%
Throughput	59	68	59	31.7%	36.6%	31.7%

What tool(s) is your organization currently using for communication and collaboration among clinical teams? (select all that apply)		
Email	170	91.4%
Phone calls	160	86.0%
Secure messaging solution (non-EHR texting app)	108	58.1%
EHR texting, inbox, or another feature	70	37.6%
Pagers	30	16.1%
Unsecured texting (WhatsApp, iMessage, SMS, etc.)	29	15.6%
Fax	28	15.1%
Call operator	24	12.9%
Handwritten notes	16	8.6%
Others	6	3.2%
Others		
Vocera		
microsoft Teams		
Teams, Slack, other		
VOALTE		
System Requires apps on Apple phones that delay communications, unable to call quickly & no text ability. Most staff resort to using their personal smartphones.		
N/A – I'm not sure		

What are the top three reasons you would like to (or have already) improve efficiencies in care collaboration? (Rank top 3 where 1 = the top reason/priority)						
	1	2	3	1	2	3
Improve quality outcomes and patient safety	75	27	26	40.3%	14.5%	14.0%
Improve care team hand-off/continuity of care	31	32	69	16.7%	17.2%	37.1%
Improve patient satisfaction	20	79	26	10.8%	42.5%	14.0%
Improve staff morale to address burnout	28	29	38	15.1%	15.6%	20.4%
Maximize caregiving resources	31	18	26	16.7%	9.7%	14.0%

Have you researched any technologies to improve communication and collaboration efficiencies at your organization? (select all that apply)		
Ability to securely share images or other content via secure messaging	69	37.1%
Secure messaging solutions	60	32.3%
Patient engagement tools	54	29.0%
Role-based messaging (where roles such as “cardiologist on-call" or “charge nurse” auto-populate from staff schedules)	51	27.4%
I have not researched any technologies	49	26.3%
Alarm management solutions	44	23.7%
EHR messaging	43	23.1%
Automated on-call scheduling	34	18.3%