Moving Toward a Statewide Communication Solution

How Technology can Improve Communication and Care Coordination among Hospital Teams, EMS and Other Care Entities

Why Does a Statewide Communication Solution Matter?

As state EMS leaders, we know you're dedicated to continuously improving patient care in your state. You want to make sure that every patient experiences the best outcome possible. With so many different pieces of the puzzle, it can be hard to determine where improvements can be made. Implementing regional systems of care has shown to create better patient outcomes, but it has become limited to only certain time-sensitive emergencies. Why aren't we using proven methods to improve patient care for every patient EMS and hospital teams come into contact with—extending beyond stroke, STEMI and trauma?

The first step to solving that challenge is realizing that the solution is simple: we need to unite interdisciplinary care teams with a singular safe and reliable communication channel, statewide. One of the hurdles of developing regional systems of care is getting different healthcare systems and organizations to communicate on the same channel with every patient case. Streamlining communication within regional systems of care is key.

Let's get to the root of this issue and explore the endless life-saving benefits of moving towards a universal communication solution across your state—and most importantly, how you can make it happen.

Interdisciplinary team communication is pivotal to successful outcomes in hospital settings.[1]

[1]Heinmann GD, Zeiss AM: Team performance in health care: Assessment and development. 2002, United States: Kluwer.

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Looking at the Big Picture: Divided Healthcare Systems

Know where communication gaps exist in patient care coordination

In your state, you have so many different healthcare systems comprised of care teams with multiple organizations and individuals. It's easy for information to get lost in the shuffle, especially when dealing with emergency response under intense timelines and collaborating with various departments.

This is why communication in healthcare is a critical part of delivering life-saving patient care. On the other hand, communication errors carry the potential to cause detrimental mistakes when it fails. To put it in context, clinician error is the third-leading cause of death in the U.S., causing more than 400,000 deaths per year and 10,000 serious medical complications every day. Those are statistics we can't afford to contribute to any longer.

It's One Healthcare System with Many Moving Parts

In different systems across the state, every care team is made up of multiple organizations, teams and individuals. Healthcare systems traditionally work in silos, with little shared data across disciplines. The communication challenges faced when developing regional systems of care are similar to those that are present within individual hospitals, making the need for a unifying solution even more critical. The ability to seamlessly organize response and intervention for critical patient cases with one solution is the key to encouraging a statewide initiative to improve outcomes and quality efforts.

Replace Outdated Technology with Communication Tools Used Daily

Can you recall that last time you used a pager or fax machine to get a message to someone? How about a radio? Most likely not. Although, you've probably sent a text message from your smartphone in the past hour. The majority of hospital and EMS communication is conducted over outdated devices, using one-to-one processes that yield limited feedback and delays in patient care. This issue becomes magnified when working across multiple entities—from different EMS agencies to other hospitals. It's important to replace these detrimental processes with technology that makes communication easier, not more difficult.

Time-sensitive emergencies are the last opportunity to provide preventive healthcare and reduce mortality and long-term costly morbidity.[2]

[2] "Impact of Regionalization of ST-Segment–Elevation Myocardial Infarction Care on Treatment Times and Outcomes for Emergency Medical Services-Transported Patients Presenting to Hospitals With Percutaneous Coronary Intervention," Circulation. 2018;137:376-387.

Key Reasons to Build Regional Systems of Care

Connecting patient care teams with a unified communication channel

By applying well-known best practices from a regional systems of care model, it is proven that we can reduce times for stroke, STEMI and trauma. But, we can do better. A regionalized communication platform has been proven to further reduce time to treatment for critical patient cases. We can also expand the regional approach to unite care teams across a state.

When unifying communication processes, everyone working together for a patient becomes part of a comprehensive team. This applies to both intra-facility as well as inter-facility communication. Synergizing collaboration among all of the moving parts of the healthcare system is crucial.

Once a solution is proven to produce life-saving results in one healthcare system in your state, you will have the defined, measurable data to onboard champions who will fight to transform healthcare systems regionally—eventually leading to statewide adoption.

Complicated Cases Need Clear Communication

Hospital and EMS teams respond to many complicated cases that desperately require fast action and clear communication, and can tremendously benefit from

regional systems of care models. End-to-end connection at every point of the patient care chain is necessary to avoid missing critical information to administer life-saving interventions. Some examples of those critical cases include:

- Sepsis
- Cardiac Arrest
- Pulmonary Embolism
- Precipitous Delivery
- Emergency C-Section
- Emergent Surgery
- Transfer and Consult
- Transplant

Real-time Communication Gets Everyone on the Same Page

Creating a communication hub creates real-time team communication and when implemented correctly, it also provides instantaneous feedback for every person involved in the patient care continuum. Team members can communicate individually or with the entire team, reaching internal and external organizations, on one communication channel. This allows for clear and concise information to be distributed to all team members simultaneously. Vital data is also readily available to reference throughout the case and motivate continued improvement and efficiencies.

Employing Real-Time Communication Regionally:

✓ **Improves quality of care**

✓ **Increases savings**

✓ **Decreases inefficiencies**

✓ **Reduces treatment times**

✓ **Reduces ambulance turn-around times**

✓ **Minimizes false activations**

✓ **Improves quality metrics**

✓ **Enhances accreditation compliance**

UNITING CARE TEAMS:

Learn how organizations in Mississippi and Iowa are making a lasting impact for the patients they serve by cultivating regional systems of care and strengthening communication.

CASE STUDY 1: Mississippi Healthcare Alliance

The state of Mississippi lies in the western end of the nation's "stroke belt," experiencing the highest rate of ischemic stroke cases— but only treating 15 percent of eligible stroke patients with approved treatment. Identifying a need to strengthen the state's ability to improve response and care for stroke victims, a state healthcare non-profit called the Mississippi Healthcare Alliance took action to encourage a regional system of care by providing hospitals the ability to fund a thorough communication solution.

St. Dominic Memorial Hospital, a 400-bed primary stroke center in Jackson, Mississippi, first implemented an innovative communication platform to improve door-to-needle times. After implementation, St. Dominic care teams achieved a 44-minute door-to-treatment time, demonstrating an 18 percent improvement. By communicating to its EMS agencies with a streamlined communication channel, the hospital reached its goal with measurable results.

This success caught the attention of Mississippi Healthcare Alliance and they introduced the technology to the board of directors who unanimously approved to provided legislative financial support to other regional hospitals that looked to improve patient care for stroke cases and beyond. Mississippi Healthcare Alliance covers half of the cost for implementing the communication platform and 100 percent of the first-year license fee for a three-year contract.

Today, the non-profit has supported six hospitals with financing the solution, including Singing River Hospital, Ocean Springs Hospital, University Medical Center Jackson, Magnolia Regional, and Baptist Health Jackson—all to create regional systems of care and foster a statewide effort to improve patient care.

Mississippi

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After implementation, St. Dominic care teams achieved a **44-minute** door-to-treatment time, demonstrating an **18 percent** improvement.

CASE STUDY 2: Des Moines EMS
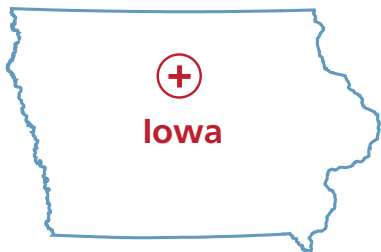
Iowa

The hospital's door-to-CT time improved from
14 – 11 minutes,
and door-to-lab time improved from
38 – 33 minutes,
using the new technology.

Regional healthcare systems in Des Moines, Iowa, in partnership with the Central Iowa EMS Directors Association, wanted to improve patient care coordination throughout the region in a way that would integrate every member of the patient care team—from pre-hospital to definitive care. Recognizing an opportunity to communicate with EMS agencies more transparently, Mercy Medical Center and UnityPoint Health Des Moines collaborated with its community partners to employ a system-wide communication solution with a collective goal to streamline communication.

By equipping EMS providers with a communication platform on their department-issued mobile devices and training them on its capabilities, EMS teams were able to use the platform to communicate seamlessly with the regional hospitals. In turn, emergency care teams at Mercy Medical Center and UnityPoint could adequately prepare patient arrival ahead of time with access real-time information and updates. Both hospitals previously used legacy systems for communication that typically consisted of radio reports, pagers, etc.—resulting in delays in care and gaps in critical patient information.

Most impressively, Mercy Medical Center has observed improved outcomes for its stroke patients using the platform. In situations where every minute counts, this makes a significant difference for their patients. The hospital's door-to-CT time improved from 14 to 11 minutes, and door-to-lab time improved from 38 to 33 minutes using the new technology.

In one example, the UnityPoint Health stroke team received all of the patient's information and vitals via the application prior to arrival, allowing the EMS providers to bypass the emergency department entirely. This resulted in life-saving treatment times for the patient, including a door-to-CT time of less than 5 minutes, a door-to-lab time of 17 minutes, and a door-to-tPA in 22 minutes.

This success has transformed into a regional effort to bring awareness to the benefits regional systems of care can yield. Des Moines is also working toward expanding the enhanced communication processes to improve treatment times beyond stroke cases.

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How to implement a statewide communication solution

Five Simple Steps to Solving a Complex Problem

1 Identify issues

We understand that improving communication at a regional or state level is a bit daunting. That's why it's important to take a step back and see the big picture. Pinpointing communication issues at every level of the patient care journey and breaking down the concrete problems gives stakeholders a clear view of the challenges at hand. It will also make it easier for you to show how the benefits of a regional system could expand to a statewide effort with the right support.

2 Seek buy-in

A statewide communication solution will need strong support. Getting champions on board from multiple parties will help to advocate for your solution. Speak with stakeholders in related organizations that have a vested interest in regional systems of care. This could be hospital associations, existing regional care systems, organizations involved in critical care and more.

3 Educate stakeholders

Talking to stakeholders about the benefits of implementing a regional or statewide system of care will encourage further support. Sharing information on the negative impact of siloed teams and outdated communication will show the need for an improved system that uses modern technology. The more they know, the more they can rally behind you.

4 Secure funding

You may be asking, "Well, who's going to pay for this?" It's a valid question. Knowing that there are multiple sources of funding and identifying the options that are available in your state will be key. Options to explore include legislative action, grant opportunities, payor funding and even organizations experiencing similar communication issues.

5 Begin implementation

Creating a regional communication system in any area of your state is an opportunity for more healthcare systems to join the initiative. Learning how neighboring systems have solved communication problems can help you foster a collaborative effort leading to statewide participation.

Let's Get Started.

Q **How do you bridge the gap from a regional solution to a statewide solution?**

A The first step can be small; start somewhere. Proven results with a regional communication solution can lead to expansion to other healthcare systems in your state. Once the initial implementation has demonstrated success with measurable improvements, other regional hospitals will follow.

Q **How do you get everyone to agree to the same type of solution?**

A This may be one of the more difficult steps in the process of implementing and standardizing regional systems of care. Building relationships with individuals and groups who can serve as steadfast champions to advocate for your effort are critical.

Q **What are my options for funding in my state?**

A Rest assured that there are multiple options for funding a regional communication solution in your state. You can look to legislative action, grant opportunities or payor provided funding. Don't be afraid to get creative with your approach. For example, joining hands with organizations seeking the same improved outcomes can help to share costs.

Q **Who are my target audiences to drive a regional or statewide system of care?**

A Every stakeholder involved in the continuum of care for patients—talk to as many people as you can. Champions can be found at every level of a healthcare system, including EMS providers, the ED team, medical directors, specialists, quality improvement leaders and hospital executives.

Interested in learning more? **Contact Brandon Means, Pulsara's Clinical Specialist: brandon@pulsara.com**

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