Innovation in Data for Improvement: STEMI Case Feedback
High quality care for patients with AMI requires engagement of healthcare professionals from across the care continuum, from emergency medical transport, to emergency department triage and STEMI identification, to in-hospital transport, to the cardiac cath lab, to the step-down unit and beyond.

For patients with ST-Elevation Myocardial Infarction, the handoffs from one level of care to the next must be especially quick and effective.

Once a patient has moved to the next step, it can be difficult to systematically circle back with providers earlier in the process to share patient outcomes or opportunities for improvement.
The Solution

Several LSL hospitals set out to improve the case feedback they provided to healthcare professionals across the care continuum.

For the Billings Clinic and St. Elizabeth Healthcare, this included more complete case feedback on STEMIs transferred in, as well as more comprehensive review and education with all ACS Care Providers.
For hospitals with very large referral areas, like the Billings Clinic, improving pre-hospital treatment and transfer practices was a priority.
The team developed a more complete case review that included:
1. Presentation and diagnosis
2. Care partners
3. EKG
4. Treatment and outcomes
5. Timing of key intervals
Another LSL hospital included images from the reperfusion to give pre-hospital providers a complete picture of care in a standard template that was shared within 24 hours of the case.
“We also started doing a feedback loop. We were giving them information back on how their patients did, where their times actually were, so they could gauge and maybe work towards improvements. Sometimes I think you’re just not quite aware of exactly where your timelines were for door to needle, door in your facility, door out your facility. And then, also, how their patients did. Saying, “This went really well and your patient did really well.””

--- Guiding Coalition Member
Implementation experience

- Implementation of the STEMI feedback forms were well received across hospital settings.

- In some sites, providing structured feedback helped to reinforce state and receiving hospital processes and protocols.

- Due to increases in number of transfer cases, some sites found it difficult to keep up with their goal of sending feedback reports within 24 hours of the case.
St. Elizabeth Healthcare expanded their pre-hospital feedback to include:

- EMS Case of the Month and Crew of the Quarter recognition programs
- Responsive educational offerings (Monthly EMS/Nursing Lecture Series, Mobile educational simulation service, St. Elizabeth EMS course)
St. Elizabeth also invested in equipping providers both within and beyond their healthcare system with Pulsara, new technology for standardized communication via smartphone, including secure EKG transmission and one-touch activation of the Cath Lab.
At the Billings Clinic, quarterly case review, open to all ACS providers across the care continuum, provided an opportunity for learning, reflection, and development of relationships. Continuing education credit helped reinforce participation.
Perspectives from the front line

“A lot of our guys don’t get to see what happens in the hospital. Once the patient is discharged, we’ll get a 911 call. They’ll say, "I just got discharged from the hospital for a heart attack." Then we just bring them back. But now we see how they discharge their patients, how they do follow up with their patients. That was an interesting thing to learn.”

“They go over every patient that month, and I think those are really good. I learn a lot. It’s interesting to see how well they all flow together, because most of the EMSs now are doing EKG's on scene, and they are radioing ahead. If they're a STEMI, they're bypassing the ER altogether and going straight to the cath lab, which I think is wonderful.”

“They’re coming out with Pulsara. They want to continue with working with the EMS to find out if there’s departments that have issues in the transmission of EKG. They want to assist them whether it’s finding funding for them for equipment or getting them equipment.”

“We start off with an education type seminar... we offered [EMS] the opportunity to come through the cath lab so they could see real-time events unfold, and what happens to the patient once they get here, so they know what to expect when they do bring a patient. We’d got feedback that that was not the best situation, so we opened the channels of feedback so they feel very comforted to call us with questionable EKG's so we can help answer those scenarios.”

--- Guiding Coalition Members
Disclaimer

The examples and templates in this Practice Brief were generously shared by the Billings Clinic and St. Elizabeth Healthcare.

They are intended to serve as a starting point for conversations about how to improve use of data to improve care for patients with AMI, and should not be interpreted as an endorsed clinical guideline.

We encourage hospital teams to adapt these approaches to their own needs and local context.