

## Reliant Medical Group uses HIE to Improve Continuity of Care for Patients



Reliant Medical Group was the first group medical practice established in Central Massachusetts. Founded in 1929 and originally called Fallon Clinic, the organization changed its name to

Reliant in 2011, and merged with Southboro Medical Group in 2015. Together, the two practices employ more than 500 providers and manage care for over 320,000 patients in the Metrowest and Central Massachusetts area.

### Challenge

Reliant is an independent medical organization that partners with several hospitals in the region, including St. Vincent Hospital, Milford Regional Medical Center, MetroWest Medical Center, AdCare Hospital, and UMass Memorial Medical Healthcare System. As Reliant focuses on outpatient ambulatory care, it is common for Reliant's patients to be transferred to an Emergency Department at a partnering hospital when they need emergency care.

In the past, these transfers created complications. Reliant's patients already have an established health record before going to the hospital's Emergency Department. Reliant tried several methods to get the records to the hospital physicians, without success. Prior methods included faxing the documents automatically, installing computer terminals in the Emergency Room, and stationing Reliant doctors on site to look up and recognize Reliant patients. None of this fit the natural flow of work as Emergency Rooms are too busy and doctors have too many other duties to attend to.

So while the information in these records was made available to the hospitals, the physicians did not have the time to look it up. When the hospital physicians then created their own health records for the patients, they may not have included key information such as medications, allergies, and previous medical conditions. This was concerning, as it is dangerous when physicians are unaware of vital information. The delays caused by needing to regather these details also slowed down treatment.

In addition to medical risks, the likelihood of a patient being admitted to the hospital is also increased. This can



inflate the financial burden for Reliant as they may also be responsible for covering the cost of hospitalization, medical tests, doctors, and all other fees. As many as 14 percent of the Emergency Department admissions could be avoided if the hospital physicians had instant access to Reliant’s outpatient information.<sup>1</sup> To improve care and reduce costs, Reliant began searching for ways to improve the hospital transfer process.

## Solution

Using systems already in place, Reliant improved the process of information sharing between their practice and their partner hospitals. Every month, Reliant now sends each hospital a list of their physicians, nurse practitioners, and physician’s assistants, updated with all new hires and anyone who has left since the previous month.

When a patient being cared for by one of the providers on this list goes to the Emergency Room, the hospital’s EHR uses an interface engine to send an Admissions Discharge and Transfer message (ADT) to Reliant’s EHR. Upon receipt, Reliant’s EHR automatically generates a Continuity of Care Document (CCD) which contains the patient’s medications, allergies, medical conditions, immunizations, and recent test results, as well as the ADT’s hospital account number and medical record number to ensure the CCD will be matched to the correct patient at the hospital. The CCD is then sent using Direct interoperability back to the hospital through the Mass HIway, the Massachusetts statewide health information exchange.

The EHR systems at the hospitals were enhanced so that the physicians can now see an icon on the patient’s record, indicating that there is an outside record they can view within their EHR. This feature ensures that they have direct access to the vital information electronically sent by Reliant.

Since automating the messages, Reliant has largely been able to move away from physical documents. There is still some redundancy when a patient needs to be transported from a Reliant urgent care center to a hospital via ambulance. Paramedics are required to have the pertinent information on board in physical documents. The documents are then transferred to the Emergency Department upon arrival, which results in extra copies of the records. This is an unavoidable issue, without also changing the ambulance practices.

## Staff Input

Reliant sought out a fully automated method that would not require staff to take on extra tasks or duties. The way the new system was set up requires no additional steps for staff at either Reliant or their partner hospitals. The patient is registered as usual at the hospital and, as a byproduct of that act, Reliant gets the information needed and generates the required CCD.

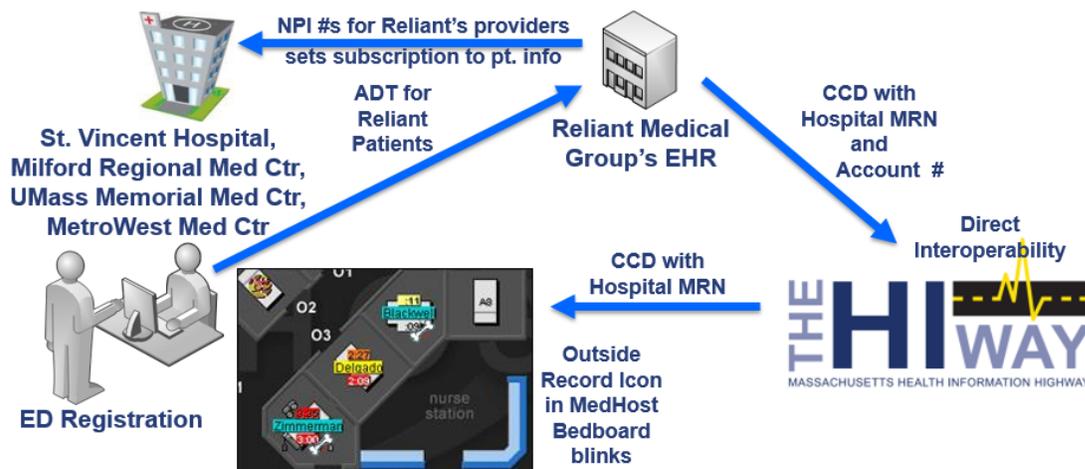
Feedback from the staff has been very positive. Staff at the hospital were pleased to know that they didn’t need to take any additional steps and the information would be easily viewable in the

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<sup>1</sup> FCG, Patient Safety Institute white paper: economic value of a community clinical information sharing network. Part I: Value to payers (Private, Medicare, Medicaid and self-insured employers) and the uninsured. 2003, First Consulting Group: Boston.

natural flow of work. The only training required was to ensure they knew what that specific icon meant so that they could view the additional records.

Since implementation, it has become more and more of a natural process to check for that icon and look at the information provided before moving forward with patient care. This level of interoperability between Reliant and its partners has now become the expectation.



In the early days of planning the implementation, some Emergency Room staff suggested that much of the outpatient information was extraneous and not useful. They were less likely to read the records if they were too long. In response, Reliant began sending a concise clinical summary document instead, which only includes the necessary details such as allergies, current medications, brief descriptions of active illnesses, and the last three months of test results, leaving out more outdated information and less important notes and comments.

In response, Emergency Room staff have increasingly relied on the information sent by Reliant. On a few occasions where a record wasn't received, physicians at the hospitals would call to ensure the CCD is sent and make sure there are no technical system issues.

*"There really are three things you have to get right in order to have a successful health information technology project. First is making sure that everyone sees the value in the project, whether that's the folks paying for the project or the people that are using the technology. That includes the patients. Next, you have to make sure that it fits into real-world workflows. So automation is key here. You want things to happen automatically behind the scenes as a byproduct of normal work. And lastly, everyone has to trust the project. Senders of information have to trust that it will always get to the intended recipient in a timely manner. The recipients need to trust that the information is accurate and complete. The patients need to trust that their information will be kept private. And the business owners need to trust that their competitors won't use the system to steal patients. So I call these three pillars of success, the "Three U's": it has to be Useful, Useable, and "U" have to develop trust!"*

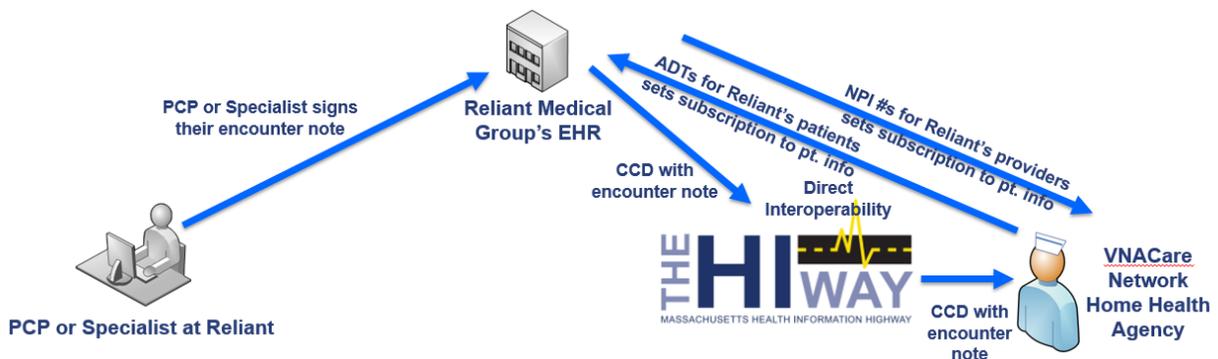
- Dr. Larry Garber, MD  
Medical Director for Informatics, Reliant Medical Group

## Timeline

The new workflow implementation began in 2014. Over a six month period, Reliant integrated workflows with St. Vincent’s Hospital. Since then, using a Connected Communities Impact grant from MeHI, the Massachusetts eHealth Institute, they have expanded the project to include additional hospitals and health systems:

- April 2016: Milford Regional Hospital
- June 2017: UMass Memorial Healthcare System (all facilities)
- June 2017: MetroWest Medical Center
- June 2018: AdCare Hospital

Additionally, Reliant has automated the messages being sent to skilled nursing facilities and home health agencies as well. In some ways, Reliant believes that it may be even more important for overall quality of care that these facilities receive the health records. This vital information gives physicians and nurses insights into what a patient was like and their treatments prior to being sent to the hospital to deal with their acute problem. This way, these post-acute care providers can make sure that less acute issues don’t get ignored.



## Challenges

A key challenge in the initial implementation was the abundance of competing health IT priorities. It took six months to implement the new workflow at the pilot site St. Vincent’s Hospital. With a fully focused IT staff, it could have been completed in just a few weeks. Unfortunately, the hospital had so many projects ongoing it was simply impossible for them to dedicate IT staff members full-time to this implementation.

Keeping that constraint in mind, Reliant remained flexible without setting a hard deadline, which ensured that the work was completed accurately and successfully.

## Support from MeHI

Reliant was awarded two grants to support their goals: an ONC Challenge Grant from 2011-2014 which allowed them to implement the new workflow at the pilot site St. Vincent Hospital; and the Connected Communities Implementation Grant in 2016 enabled Reliant to expand the workflow to additional hospitals and trading partners. The goal of both of these grants was to

improve care coordination services using the Mass HIway to stimulate collaboration and adoption of health IT to improve patient care and to reduce healthcare costs.

*“Reliant Medical Group’s mission is to provide the highest quality, safest care for patients in central and metro west Massachusetts and we greatly appreciate the collaboration with our partnering healthcare organizations in the area and MeHI for helping us achieve that shared goal.”*

- Dr. Larry Garber, MD  
Medical Director for Informatics, Reliant Medical Group

Without this grant support, Reliant would have been unable to make it a priority to extend the new workflow beyond hospitals and into other partnering healthcare centers.

## Impact

Since the implementation, Reliant now sends approximately 6,000 CCDs every month to partnering hospitals and health centers. The automated messages have improved patient care in Emergency Departments, as physicians are instantly aware of outstanding medical conditions, medications, and allergies that may have an impact on care.

Reliant set a target to reduce admission rates 10% by deploying the new workflow, and recorded an approximate 8% reduction directly after the implementation. However, Reliant was unable to conduct a controlled study and actual results directly attributable to the new workflow are unknown. Reliant and each hospital implemented many other interventions and projects in parallel to this initiative, which made tracing the change in admission rates back to a single source impossible.

While the exact attributable reduction is unknown, Reliant has positively determined that this new workflow has aided physicians and nurses at their partner hospitals. They no longer have to hunt for information that is now readily available. Furthermore, patients don’t need to remember or reiterate information they have already given to a physician or nurse.

Reliant is committed to providing high quality, low cost, safe, and convenient care for all its patients. The new workflow allows information to be delivered quickly in emergency situations. This improves safety as physicians have the information about the patients at their fingertips from the onset of care. It also enhances the convenience as patients don’t need to remember their full medical history since the doctors will already have it. By increasing the safety and convenience, the new workflow has improved the quality of care for patients at all partnering hospitals and health centers.

## Recommendation from Reliant

The key to Reliant’s success was the incorporated automation. When implementing similar workflows, it is essential to ensure hospital staff are not required to perform any extra steps. Nurses and doctors have so many responsibilities to attend to, that any additional work would likely not be given the attention it would need. The fact that the new workflow happens

automatically as a byproduct of the tasks and actions the staff already execute has been instrumental to the success. This aspect should be taken into consideration for similar projects.

For more information on Reliant Medical Group, visit their website at [reliantmedicalgroup.org](http://reliantmedicalgroup.org).