

## Cape Cod Healthcare improves patient discharge process through HIE



**Cape Cod Healthcare (CCHC)** is the leading provider for healthcare services to residents and visitors of Cape Cod. Their mission and goal is to coordinate and deliver accessible health services and high quality care to everyone. CCHC partners with health and human service providers to coordinate care and respond to the needs of their community.

### Challenge

In 2016, CCHC noted a concern in the methods the hospitals used to provide care for patients. The only way they could communicate discharge information to external providers was to send them the information manually, which was a slow and ineffective process. Therefore, CCHC began to look for electronic methods to speed up and enhance the process.

### Solution

CCHC engaged in a project to connect to the Mass HIway and develop new Health Information Exchange (HIE) workflows to manage and track the sending of clinical information to outside care providers electronically whenever a patient is discharged.

The project required establishing electronic HIE connectivity, resolving bottlenecks and barriers surrounding direct messaging, and finalizing clinical documentation standards for all future information exchanges.

CCHC worked with multiple partner organizations separated into two groups. Organizations with active Mass HIway addresses or the technology in place to exchange information were included in the first wave, while organizations that required more time to prepare for the implementation were handled in a second wave. The organizations involved in the first wave included JML Care Center, BAYADA Home Health Care, and Kindred at Home.

### Implementation Challenges

Implementation took place over the course of eighteen months. CCHC developed care coordination prototypes and reviewed and updated process improvement plans with an aim to improve performance and identify breakdowns in the process. Furthermore, CCHC worked to develop plans for sustainability and expansion of the workflows.

CCHC experienced a variety of technical issues during the implementation of the new workflows, including the need to update their system to be able to transmit CCDAs electronically. The issues were dealt with as they arose, and resolved appropriately.

During the execution of the project, additional challenges arose during the incorporation of the new workflows into the providers' routines. These challenges include:

- The continued practice of collaborating organizations printing CCDAs for providers rather than relying on electronic copies. This was done to allow for quick reference until the structured clinical data was able to interface directly into their EHRs. The measure was intended to be temporary until providers became more comfortable using the new HIE function CCHC has since moved away from paper and is using the electronic versions exclusively
- The ability to control and measure the workflow implementation was limited because there was no way to accurately track the providers' continued exchange of paper copies.
- The limitations of EHR functionality, mainly due to the need for additional data elements to be added to the CCDAs. CCHC is working with its EHR vendor to resolve this issue, as well as to integrate more structured fields from the CCDAs to various EHRs.



## Staff Involvement

Feedback from staff was encouraging. They made requests indicating their willingness to use the new workflows, and offered suggestions for further improvement. Such proposals included:

- Option to add additional data to the CCDA.
- Ability to see a patient identifier in the transaction list before opening a file.
- Capability to separate organizations that use the Mass HIway from those that continue to send information manually.

Additional recommendations included ensuring that adequate resources are allocated for future designs, and developing more iterative processes to decrease staff disruption. The staff also advised taking into consideration incentive programs such as Meaningful Use (MU) and the Quality Payment Program (QPP), as these programs require time and effort to upgrade technology and impose standards that impact the workflows.

## Support from MeHI

CCHC was awarded a Connected Communities Implementation Grant from the Massachusetts eHealth Institute (MeHI) to improve care coordination services using the Mass HIway. The Connected Communities Program is aimed towards collaboration and adoption of Health IT to improve patient care and reduce healthcare costs.

## Outcomes

Because the information is all coming in from different data sources, CCHC needed to develop a custom report system to measure how well the workflows are being integrated. The new reporting capability is a valuable addition to the system, as CCHC can now determine which referrals didn't have CCDAs sent electronically when patients were discharged, and can troubleshoot any transmission failures as necessary.

In the initial roll out phase, CCHC intended for 80% of CCDAs to be sent electronically, with a long term goal to transmit 100% of CCDAs electronically. Over a three month roll-out period between December 1, 2017 and February 28, 2018, actual measurements were tested to determine whether the targeted outcomes were met. The 80% goal was met by the majority of partnering organizations, with the overall average being 81% of discharges including CCDAs at the end of the three month roll-out period.

Overall, the new workflows have resulted in a major improvement from the previous methods of manual communication, accelerating messages between partnering providers.

## Next Steps

Moving forward, CCHC intends to expand the process to other organizations throughout Cape Cod, and has already begun identifying future collaborators. The goal is to establish bidirectional document exchange across the care system. This will allow CCHC access to real-time medical information for all patients immediately upon admission.

To read the full case study, click [here](#).

For more information on Cape Cod Healthcare, visit [capecodhealth.org/](http://capecodhealth.org/)