



## Summary

### CUSTOMER

Rush Health, a Clinically Integrated Network

### CHALLENGES

Aggregating and using health data for analytics and quality reporting

### OUTCOME

A single, unified view of the patient and care quality across settings and systems

## Rush Health + InterSystems

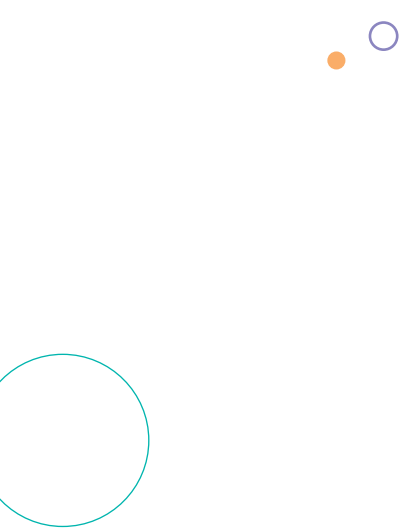
# HealthShare Unified Care Record Improves Performance Measures for Rush Health's Clinically Integrated Network

Rush Health is a Clinically Integrated Network (CIN) in the greater Chicago area with 4 member hospitals, nearly 80 affiliated physician practices, more than 1,400 physicians, and 625 non-physician clinicians. Like other CINs, Rush Health must bridge data needs between its provider members and the payers with whom they contract.

80% of Rush Health members use the Epic electronic health record system. And the organization's health information technology philosophy is "Epic first." Ray Halper, Chief Information Officer, Rush Health, explains, "When we need a report or other information, we look first to get that from one of the Epic instances. When we can't, then we look to other solutions." In these cases, Rush Health uses InterSystems HealthShare software to fill the gaps.

## A Single Data Asset with Many Uses

HealthShare Unified Care Record aggregates information from Epic and non-Epic EHRs across the Rush Health network into a single, continuously updated patient record. Rush Health uses the HealthShare Health Insight product as a pipeline to feed clean and normalized data to analytics applications, and for reporting. A few examples illustrate this approach.



**FOR HEDIS REPORTING, “WITH ALL OF THIS INFORMATION IN HEALTHSHARE WE USE SIMPLE QUERIES TO PULL OUT AND DELIVER THE SUPPLEMENTAL DATA IN WHATEVER FORMAT THE PAYER REQUIRES.”**

*Ray Halper, Chief Information Officer, Rush Health*

## Identifying Information Gaps in the EHR

For success in value-based care payment models, following medical best practices and monitoring results is one thing. Being certain that you have complete information for accurate reporting is another.

During an annual quality measure reporting period, several Rush Health providers were surprised to find they were just short of hitting their target numbers for colorectal cancer screening. “We were asked to do an analysis and figure out the reason, and a solution,” says Halper.

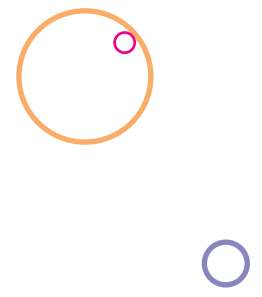
At the time, there was no direct feed of results from Cologuard® home screening tests, which count toward the colorectal screening measure, back into Epic. Halper’s team used a secure Cologuard portal to download the results of all tests ordered from the Rush Health network. Then, using HealthShare Health Insight, Halper and his team compared these results against all of those aggregated by HealthShare into its unified care record from Epic and other EHRs used by Rush Health providers. “We were able to see which Cologuard results were in the EHRs, and we found a set of results that were not,” Halper says.

## A Little Bit of Help, a Big Improvement in Results

Halper’s group created a final report using all three data sources – Cologuard, Epic, and HealthShare unified care record – to determine what needed to be done. A trend analysis showed which providers would benefit from getting the Cologuard results into the EHR for the Rush Health performance improvement program. “With the results in, some providers met the performance goals for the program, and we identified additional opportunities for data interfacing, curation, and automation,” says Halper.

## Using Social Determinants in Risk Prediction Models to Reduce Costs and Improve Care

Whether necessary or not, an emergency department (ED) visit can be expensive for the patient and healthcare facility. It also can be especially time-consuming and unpleasant for patients whose needs aren’t true emergencies. Rush Health developed two statistical models to address these issues. One gives a prediction for patients likely to have avoidable ED visits in the next three months. The other, a prediction of which patients are likely to become ED frequent utilizers in the next three months.



## Better Care Management, Happier Patients, Lower Costs

“Using these models, we wanted to proactively reach out to targeted patients and give care managers an opportunity to steer them away from the emergency department to a provider who could treat them as a whole person in the appropriate care setting,” says James Grana, Executive Director, Rush Health. The entire CIN would benefit, as well, from higher patient satisfaction and lower overall costs.

## Statistical Models Identify Key Determinants

The original set of statistical models analyzed claims and demographic data from CMS (Centers for Medicare and Medicaid Services) for the CIN’s Medicare patients. They identified factors such as income, race, and ethnicity as being most predictive of avoidable ED visits, as well as the likelihood of becoming an ED frequent utilizer. Income level was inferred from the CMS designation of a patient being “dual eligible,” or qualified for both Medicare and Medicaid.

## Mining the Unified Care Record

For patients in commercial health plans, however, the claims data did not include social determinants of health. Rush Health wondered whether the predictive ability of the commercial health plan models could be improved based on data aggregated and provided to the models by HealthShare. “The unified care record has a wide variety of demographic data, including social determinants, that we can use to improve the accuracy of inferences,” says Doug Thompson, Chief Analytics Officer, Rush Health. Rush Health brought that data into the models and found a 10% improvement in the C-statistic, or how well the predictions matched the actual numbers, for patients in commercial health plans.

## Improving HEDIS Scores for Incentive Payments

HEDIS (Healthcare Effectiveness Data and Information Set) scoring to determine incentive payments is a way of life for provider and payer organizations in value-based care payment arrangements. For hybrid HEDIS measures that require both claims and clinical data, payers generally do not have direct visibility into provider EHRs. Instead, they accept submissions of “supplemental” data from provider EHRs and health information exchanges to help make more accurate measure calculations.



**RUSH EXPECTS A 20-40% INCREASE IN TARGETED PERFORMANCE MEASURES JUST BY BEING ABLE TO LEVERAGE THE DATA IT NOW HAS IN HEALTHSHARE.**





## One Set of Data, Disparate Forms for Reporting

The Rush Health clinical performance improvement program rewards providers if they meet certain performance levels on their HEDIS measures. “It’s important to us because it makes sure that our clinicians are providing high quality care and following established national clinical guidelines,” says Halper. The problem is that different payers have different forms and delivery requirements for supplemental data. Collecting the data and reporting it to multiple payers in so many ways places a huge administrative burden on provider organizations.

## Multiple EHRs Compound the Reporting Challenge

The challenge of supplemental data reporting is compounded for Rush Health. The organization manages value-based care arrangements across its network of providers, and these providers use different EHRs. Although the CIN hospitals use Epic – and some of the practices outside of the hospitals use an instance of it – this accounts for only 80% of the data Rush Health needs to report. The remaining 20% of the CIN’s data is held in other EHRs, such as athenahealth, eClinicalWorks, gMed, and eMD. “There’s a big opportunity to increase our scores by leveraging the data that’s outside of Epic,” Halper says.

## 20-40% Increase in Performance Measures with HealthShare

Using HealthShare, Rush Health created “lightweight” connections to these other EHRs. The connections pull in just the observations and lab results needed for HEDIS supplemental data. “Now with all of this information in HealthShare,” says Halper, “we use simple queries to pull out and deliver the supplemental data in whatever format the payer requires.”

Rush Health expects a 20-40% increase in targeted performance measures just by being able to leverage the data it now has in HealthShare. “Our data analysis indicates we’ll hit the initial thresholds for these measures, if not the highest levels, as our internal eCQM [electronic clinical quality measures] data already tells a very strong story about our providers’ performance.”