Hartford Hospital Leads Connecticut Health Information Exchange Initiative with NextGate Matching Technology

Overview

Founded in 1854 as the area’s first hospital, Hartford Hospital has remained among the country’s finest medical institutions by emphasizing patient care through world-class staff and facilities and excellence in teaching and research. It has 867 beds, an active medical staff of more than 900 physicians and dentists, and a support staff of more than 7,000. Hartford Hospital is the major teaching hospital affiliated with the University of Connecticut Medical School and one of three hospitals in the Hartford Healthcare regional care network.

Challenge

- No consistent patient identifier
- Inadequate patient matching across multiple systems
- Unable to scale to HIE requirements
- Manual intervention required

“We desperately needed a way to accurately identify patients across multiple communities and networks, both within the Hartford system and beyond, … NextGate and Match-Metrix were the obvious choice.”

Steve O’Neill, CIO, Hartford Hospital

Challenge

The Connecticut Department of Social Services received a grant from Centers for Medicare and Medicaid Services (CMS) to build a pilot Health Information Exchange (HIE) focusing first on Medicaid patient data and then expanding to local community data. The department contracted with eHealthConnecticut to complete this project. Always a leader in using innovative healthcare technology, Hartford was well on the way to deploying an open source-based HIE infrastructure. eHealthConnecticut chose Hartford as the technology provider for the project.

The system included a front-end portal, standard integration protocols, and a Master Patient Index (MPI) to identify, match, and link patient records from the various HIE participating institutions. The MPI was crucial because, as is the case throughout the United States, there is no unique patient identifier that stays with an individual across all the healthcare systems in Connecticut. The problem is heightened since there is no standard way to enter patient information either, thus increasing the likelihood of error. This means it is very difficult to determine whether vital health information entered into one system relates to a patient entered into another system.

The first MPI adopted by the hospital to overcome these patient identification challenges did not provide the level of matching accuracy needed. Furthermore, it required too much manual intervention, the administration screens were cumbersome, and the security was not...
exclusive enough. These deficiencies would be magnified at the HIE level, where it is critical to minimize data conflicts and maximize security and privacy for all the various stakeholders.

“We desperately needed a way to accurately identify patients across multiple communities and networks, both within the Hartford system and beyond,” said Steve O’Neill, CIO at Hartford. “With tight budget constraints, we needed a more precise yet cost-effective solution that would require minimal monitoring from us. NextGate and MatchMetrix were the obvious choice.”

**Solution**

NextGate® is an acknowledged technology leader in the field of accurate patient identification and Hartford Hospital had already experienced NextGate’s technology and services. Since 2005, NextGate had been providing professional services to fine tune, enhance, and support Hartford’s existing patient identifier solution. When NextGate leveraged their two decades of Enterprise Master Patient Index (EMPI) expertise to develop the NextGate MatchMetrix® EMPI, and expressed their vision for HIEs and community health integration, Hartford was eager to implement the new technology.

Designed for precision matching of data in multi-system environments, the MatchMetrix EMPI is the most exact and automated solution available. It incorporates real-world workflows to streamline processes and enhance efficiency for administrators and offers field-level role-based security.

In addition, the MatchMetrix EMPI is rapid to implement and easy to use. It is integrated to current systems and processes, thus protecting existing investments, and incorporates a configurable database schema and graphical user interface to adapt to changing requirements. The cost-effective MatchMetrix solution helped the budget conscious project stay on track.

In early 2010, Hartford Hospital adopted the NextGate MatchMetrix EMPI as part of its physician electronic medical record solution and as the core matching technology for the HIE. The NextGate team helped Hartford Hospital install the EMPI and the system was up and running in a very short time. The MatchMetrix solution includes a full data stewardship console to assist Hartford Hospital in resolving patient identity issues, and complies with the Integrating the Healthcare Enterprise (IHE) Patient Cross-Referencing (PIX) and Patient Demographics Query (PDQ) protocols. As a result of the MatchMetrix EMPI integration, Hartford’s HIE is equipped to uniquely identify an individual patient so that all of their data, from across the exchange, can be accurately associated with them.

**About NextGate**

NextGate, the Enterprise Master Index leader, offers products and services for the precise management of information. With an extensive background in Enterprise Master Person Index, Enterprise Application Integration, and Service Oriented Architecture technology, NextGate is a leader in delivering creative, robust and simple solutions that make data management easier, more secure, and more accessible.