

SUCCESS STORY

UPMC Undergoes EMPI Transplant for Future Wellness

Selects Initiate to enable growth, cost savings, process improvements and analytics

Overview

Background: The University of Pittsburgh Medical Center (UPMC) serves the health needs of more than 4 million people each year in 29 western Pennsylvania counties, with more than 45,000 employees, 20 hospitals, 400 physician offices/outpatient centers and a health plan

Challenge: Better identify duplicate records within and across 17 distinct data sources while enabling the interoperability and scalability needed to keep pace with ongoing growth

Solution: Implement the Initiate® EMPI for all of UPMC's current source systems, enabling integration with the clinical interoperability portal

Results: UPMC has paved the way for future strategic initiatives while saving money, maximizing resources, improving business processes and delivering better analytics

The University of Pittsburgh Medical Center (UPMC) serves 29 western Pennsylvania counties. With more than 45,000 employees, 20 hospitals, 400 physician offices/outpatient centers, and a health plan, UPMC serves the health needs of more than 4 million people each year. UPMC has long been at the forefront of healthcare IT and redefining models of healthcare delivery.

Across its large and varied network, UPMC has more than 3,350 licensed beds. In a typical year, UPMC has more than 167,000 inpatient admissions, 3 million outpatient visits and 400,000 emergency visits.

The IT environment is similarly large and complex, with over 1,100 IT professionals supporting more than 2,000 applications. Since 2000, UPMC's legacy enterprise master person index (EMPI) has shown value and benefited patients and UPMC alike; however, with the current growth strategy it was time for a change.

Challenge

UPMC required an EMPI solution that could support their ongoing growth and keep pace with reporting and analytical needs. Additionally, they required robust functionality for identifying duplicate records within and across multiple systems and care venues.

The EMPI universe at UPMC is large and complex:

- ▶ Comprised of three different entities – persons (patients), providers and organizations
- ▶ More than 8 million records across 17 distinct sources
- ▶ 1.8 million weekly HL7 transactions and growing

The legacy EMPI required five systems analysts and eight data quality employees to keep the system up and running while also remediating a daily average of 450 potential linked or duplicate records. Additionally, as UPMC grew and desired more in-depth trend analysis, the existing EMPI could not deliver the necessary business analytics.

The leaders at UPMC recognized the need for a change due to the misalignment between the existing vendor's long-term strategy and UPMC's requirements. UPMC defined the following requirements for their new EMPI:

- ▶ Interoperability with systems spanning the organization, including a new SOA-based interoperability platform with a clinical portal from dbMotion

ACQUIRE



RESOLVE



USE



Initiate®

Know your data.
Trust your data.

- ▶ Scalability to support both legacy and newly acquired systems as well as transactional growth
- ▶ Sophisticated matching and linking capabilities to automatically remediate duplicate records
- ▶ Accuracy to support business initiatives like revenue cycle management and the clinical interoperability portal
- ▶ Ongoing product development to pave the way for future compatibility and growth
- ▶ Strong project management between technology partners (dbMotion, IBM and Initiate) to enable smooth installation and transition

Solution

Working with trusted partners like IBM for infrastructure and dbMotion for their SOA-based interoperability platform, UPMC has a clearly defined objective for their healthcare IT strategy to ensure continuity and integration. Based on their multifaceted patient, provider and payer identification needs, the decision makers at UPMC determined that the Initiate® EMPI solution was the best choice and best fit for their future strategy.

Together, Initiate and UPMC developed a nine-month implementation plan to include all of UPMC's current source systems and integration to dbMotion for the clinical interoperability portal. Nine source systems of person/patient data, seven source systems of provider data and one source of organization information will all be part of the new EMPI that will serve as the foundation for patient and provider identification across clinical and administrative systems throughout the UPMC network. With the Initiate software platform, UPMC now has the ability to manage not only person data but also data for providers and organizations within a single application.

With dbMotion's solution working in tandem with Initiate, UPMC is also upgrading their entire system of patient demographics and identifiers, impacting patient administration on both the inpatient and outpatient fronts. Laboratory orders and results are tracked in the system, along with allergies, prescriptions, key immunizations, discharge summaries and more so that physicians will have a more comprehensive and accurate picture of the patient's medical history.

UPMC determined that the best way to implement the EMPI was an aggressive "rip and replace" in which they completely replaced their EMPI in a "big bang," allowing the old system to continue functioning until the new one was installed and ready to be deployed. At the same time, by operating under a "do no harm" mantra, UPMC ensured against any major disruption in current processes.

This type of approach was taken in order to protect the day-to-day functionality of the medical center and to maintain the ability to access and update patient records. Significant testing was completed before cut-over to the new system occurred. Unlike some businesses that can shut down systems for a weekend for upgrades, medical facilities must continue treating patients and updating records.