



CHALLENGE:

- Develop a regional EMPI that accepts MPI data from disparate systems
- Improve member organization readmission rates
- Provide data formatted for use by HIEs and research organizations nationwide

SOLUTION:

- QuadraMed EMPI

RESULTS:

- Helped to reduce member readmission rates by more than 20% across the North Texas region
- Regional EMPI facilitates research focused on health improvement
- Regional EMPI interfaces with all common MPI systems and conforms to IHE profiles

QuadraMed EMPI Helps Texas Foundation Link, Manage 8.5M Patient Records

Visionary organizations nationwide are constantly searching to improve their quality of care, patient safety, and financial viability by creating innovative uses for EMPI technology. One of these is the highly-recognized Dallas-Fort Worth Hospital Council Education and Research Foundation.

The Foundation was established under the umbrella of the Dallas-Fort Worth Hospital Council to answer a growing need for high quality, standardized data that measure value and quality improvements. Its role has since been expanded to include community health, research, and workforce initiatives.

A Unique Use for EMPI

In 2006, the Foundation moved to identify an EMPI vendor that could provide the technology and related services capable to support what it called a Regional Enterprise Master Person Index (REMPI). The Foundation was seeking an EMPI that could be connected to its regional data warehouse via routine batch data loads from the Council's member facilities. Its goal was to use REMPI data to support quality and safety reporting, as well as research activities. Participating facilities would not have direct access to the system, but instead would submit discharge data quarterly via secure file transfers.

"Our greatest asset is the Information and Quality Services Center (IQSC) Data Warehouse, but it was also our main challenge when it came to managing duplicates and multiples across many different hospital systems," said Theresa Mendoza, the Foundation's director of quality, BI, and data services. "As a convener of the regional data, we're not staffed like a hospital and we do not have charts readily available for us to reconcile duplicates."

This unique concept would require advanced identity management functionality and considerable system flexibility. A decision was made to enter into partnership with QuadraMed and leverage the company's leading-edge EMPI technology. The partnership then developed a highly successful solution that continues to evolve based upon the Foundation's needs and opportunities.

"Emory University is using REMPI data to study ozone data and high ER admission rates. This is to determine the effect ozone has on people with heart problems and asthma."

Theresa Mendoza, Foundation
Director of Quality, BI, and Data Services



The DFWHC Foundation AT A GLANCE:

Establishing a Regional EMPI and Gaining Valuable Insight

After an initial MPI cleanup was performed on data warehouse records by QuadraMed, the EMPI was programmed with customized rules to assign Enterprise ID (EID) numbers using QuadraMed's proprietary probabilistic patient matching algorithm. This technology ensures each patient has only one EID. REMPI records are optimally matched by each participating hospital using disparate systems via the quarterly data submissions.

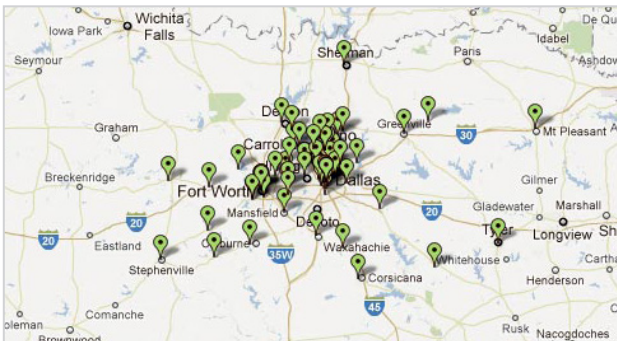
From this visit-centric data, REMPI then links all of the data from every participating hospital to create a patient-centric view used for further research and reporting under the EIDs. A unique set of auto-linking rules, developed by the Foundation and QuadraMed, identify whether a patient is the same person from hospital-to-hospital.

The resulting database enables the Foundation to aggregate and customize an unlimited amount of de-identified claims data at the patient level, rather than just the encounter level. The data facilitate analyses so hospitals can be more actively involved with their patients as they consider, for instance, operational changes aimed at decreasing readmissions. The readmission data is not only cost-effective; each EID record provides a pattern of the patient's admissions containing claims information for all payers, not only Medicare. Comprehensive inpatient-to-inpatient data is currently available about readmission rates including Acute Myocardial Infarction, Congestive Heart Failure, Pneumonia, and much more.

According to Theresa Mendoza, "Although we place emphasis on what CMS is looking for concerning readmissions, we can actually look at any product line, any DRG, using our business intelligence tool. Emory University is using REMPI to conduct a Dallas air pollution epidemiology study. They are comparing ozone data to high ER admissions rates. This is to determine the effect ozone has on people with heart problems and asthma."

REMPI data is also being used to assist in validating the regional Health Information Exchange's Master Patient Index. Because QuadraMed technology conforms to IHE profiles, REMPI can be expanded to manage health information exchange, and the Foundation can also use its flexibility to consider nationally-funded research opportunities.

- **Headquartered in Irving, Texas**
- **80 facilities participating in REMPI**
- **8.5 million patient records in warehouse**
- **Over 100 inpatient quality, market, and preventable emergency room encounter metrics**
- **Areas of focus include quality and safety, access and equity, and readmissions**



DFWHC member hospitals

REMPI is the first fully functional, comprehensive regional EMPI in North Texas. It contains data for 8.5 million patients who have been identified to date, including 95 percent of the North Texas inpatient market. The Foundation monitors over 100 regional indicators, and the participants in the Foundation have overall benefited by more than a 20 percent average reduction in their readmission rates.

The Clear Results of a Successful Regional EMPI

"The system's development is very fluid. From inpatient data we moved to the emergency room," said Foundation President, Kristin Jenkins, JD, FACHE. Outpatients and ambulatory surgery are currently included in the database.

Theresa Mendoza noted that the REMPI data is being used to support an array of research projects. "We're using REMPI data for a retrospective child death review. We obtain information from the Dallas County Child Death Review Team, and we provide a data pull of all the child's hospital encounters, including emergency room visits. The Team investigates the findings to see if there were processes that could have been in place that would have prevented the child's death." A review committee includes members from law enforcement and child protective services who are working to improve protective processes.

Recently, the DFWHC Foundation also successfully linked its first clinical data warehouse of cardiac procedures to the REMPI to provide more in-depth analysis for patients who have undergone cardiac surgery, including long-term survival risk.

Carol Young, the Director of Quality & Patient Safety, explained how the REMPI is helpful in assisting facilities understand their whole readmission population and not just the patients that readmit back into their facility. "In February, the DFWHC Foundation Hospital Engagement Network (HEN) had the opportunity to participate in a Readmissions Summit with another HEN. One topic of discussion was the discrepancy between Intermountain Health HEN calculated readmission rate and CMS calculated readmission rate for the Intermountain HEN hospitals. Through REMPI, the DFWHC Foundation was able to demonstrate the percent of readmission both in and out of a specific hospital. Some specialty facilities had higher readmissions out of facility than are accounted for with a conversion factor. It was a great 'ah ha' moment for the group."

"There are many organizations interested in using this type of information to conduct research into what is working to keep people healthy and out of the hospital."

Kristin Jenkins, JD, FACHE,
Foundation President



For further information about QuadraMed EMPI and support services, visit www.QuadraMed.com or call 703-709-2300.

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