Challenge
An inefficient master patient index (MPI), and multiple MPIs that were not linked across the enterprise were creating challenges for Exempla. Data was being entered into multiple records for the same patient, with no ability to merge those records until post-discharge. This resulted in inconsistent and inaccurate patient records that could impact care decisions and also affect interoperability between the facility’s information systems and those of its partner affiliates. It also increased the workload for HIM and IT in terms of managing system integrity, and created a significant drain on financial resources.

Solution
Engaging Just Associates to evaluate strategic needs related to interoperability and an external enterprise master patient index (EMPI); establish a standard set of requirements by which to evaluate potential EMPI vendors; and conduct a total-cost-of-ownership and ROI analysis, including a cost justification.

Services Provided
- EMPI Consulting

Exempla Healthcare
Denver, Colorado

Studies in Success
Evaluating and Addressing the Need for an Effective EMPI

Long-term benefits — permanent resolution

Exempla Healthcare is a not-for-profit, community based healthcare organization sponsored by Community First Foundation and the Sisters of Charity of Leavenworth Health System. It consists of three hospitals and a network of clinics throughout the Denver metro area.
Results

Exempla’s EMPI project is currently in the implementation phase, but the organization is already realizing the benefits of conducting the comprehensive assessments, evaluations and justifications that led to the decision to move forward. With the enterprise master patient index, the total annual cost of duplicate records is expected to drop from $871,000 to just $374,000 based on a 70% reduction in duplicates after the first year. This will result in an ROI within two years due to reduced costs in management of patient data, a reduction in the variable costs for duplicate tests, and elimination of the on-going costs associated with resolving duplicate records.

In addition to reducing costs, Exempla’s objectives with the EMPI were to enable clinicians (including those from affiliated external provider entities) to accurately identify patients throughout the enterprise and provide them access to pertinent clinical information; provide a complete view of a patient’s health status; and adopt an advanced record search algorithm to enable patient registration and scheduling staff to more accurately identify patients and reduce the risk of incorrect patient identity or creation of duplicate patient records.

Just Associates was engaged to first evaluate Exempla’s strategic needs related to interoperability and an external enterprise master patient index. This EMPI consulting process started with a comprehensive data integration and patient identity data capture assessment, including an in-depth analysis of how pertinent information was collected from the patient, how that data was captured, how searches for existing patient records were conducted and how that patient’s identity was validated.

Just Associates also evaluated the back-end, namely the 200-plus system interfaces across which patient data was exchanged, to ascertain how accurately the receiving system’s record matching performed. Areas of potential risk were identified for each downstream system. This led to the development of more than 250 functional requirements for prospective EMPI solutions and the identification of system requirements to drive vendor selection.

To validate that selection and to help secure approval and funding to move forward with implementation, Just Associates then conducted a complete total-cost-of-ownership and ROI analysis, including a cost justification. The goal was to provide not only the cost justification, but also an explanation of goals and the consulting hours needed for EMPI implementation. It also served to identify general interoperability requirements with and without an EMPI implementation, and duplicate vulnerability for downstream systems in the absence of an EMPI.

As a final component to the EMPI consulting project, Just Associates developed educational materials to help the capital approval committee understand that an EMPI is more than just a filter to identify duplicate records; it is a complete data management tool.