



Backbone of the All Payer Database

Utah Department of Health Leverages Informatica Platform for Comprehensive View of Healthcare Cost and Quality Across Episodes of Care

FAST FACTS

BUSINESS INITIATIVES

- Support healthcare reform with All Payer Database and episode of care analysis
- Determine the full cost of care, rather than the cost of individual components such as delivery
- Promote improved public health, policy, and economic decision making
- Ensure patient privacy through sophisticated encryption and process safeguards

TECHNOLOGY STRATEGY

Implemented Informatica Platform to provide fast, automated, and accurate linking of identified data elements in preparation for delivery to All Payer Database.

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— Dr. Keely Cofrin Allen,
Director, Office of Health Care Statistics, State of Utah Department of Health

Utah Leads the Way

In the complex and dynamic arena of healthcare reform, the State of Utah has taken a leading position. Last year it became one of only a handful of states to establish an All Payer Database (APD)—an ambitious program that tracks the cost and quality of medical care by combining claims data from both private insurance companies and public health organizations. The resulting database provides a complete picture of medical care, linking treatments across an entire episode of care (EOC), even when patients switch insurance companies or move from private to public care.

The need for a sophisticated All Payer Database was recognized and funded by Utah’s state legislature as an important element in furthering healthcare reform. “Our current health system has been broken by government regulation, archaic, complicated payment systems, and a lack of transparency regarding cost and quality,” says Representative David Clark, co-chair of the Health System Reform Task Force. “The APD will play an important role by providing consumers, business owners, and policy makers with the tools to make wise decisions.”

Dr. Keely Cofrin Allen, director of the Office of Health Care Statistics for Utah’s Department of Health (DOH), has overall responsibility for the APD program. “By examining an episode of care from start to finish, the ‘real’ costs of care can be compared, rather than the costs of the individual components, such as delivery alone,” she explains. “We believe that statewide EOC analysis across payers will yield a broad spectrum of data vital to public health, policy, and economic decision making.”

BENEFITS

- Universal data access supports data in multiple formats, including flat file and modified X12-837
- Solution supplies highest degree of linking with the least amount of manual intervention
- Automated solution frees staff to focus on research collaboration and new health reform initiatives

NUTS AND BOLTS

- Solution: Identity resolution
- Product: Informatica Identity Resolution
- Sources: Flat files (enrollment files and pharmacy claims) and modified X12-837 formatted medical claims from multiple sources, including insurance companies and pharmacy benefits managers
- Target: All Payer Database running on Microsoft SQL Server

New Level of Data Quality and Scalability

Early in the project, the DOH realized that building a successful All Payer Database would require a new level of sophistication in terms of ensuring data quality. In particular, the system would need to accurately track claims data for individuals across time. “It was clear from the outset that the models currently in use within our industry were inadequate for our purposes,” Allen recalls. “We needed to follow people longitudinally, and for that we required identified data.”

The DOH also needed a system that would scale easily to handle the tens of millions of medical, pharmacy, and laboratory service claims being submitted by Utah-based insurance companies and government healthcare agencies. Allen says that using manual methods to match claims data with patients was out of the question. “The lack of adequate tools to link records meant the staff could spend up to six months linking a single year’s worth of inpatient data and vital records on mothers and babies—and that was just unacceptable,” she says.

To find a solution well suited to this unique task—one that combined both high-level encryption to ensure privacy and highly efficient data-linking capabilities—the DOH looked at technologies across different industries. In the end, Allen says, the Informatica® Platform “was the clear choice.” With Informatica’s identity resolution technology, the DOH rapidly and accurately matches enrollment and claims records with existing individuals and creates a new identity if no match exists. Today, the Informatica solution is one of the key technologies behind the APD, which already contains some 150 million records and is expected to grow by approximately 65 million claims annually. Ultimately, the Utah APD will hold data on episodes of care for approximately 70 percent of Utah’s population.

Improving Efficiencies, Reducing Costs

With claims and enrollment data being submitted in myriad formats, the DOH needed an open, flexible solution that could work with every datatype. “Universal data access was an essential requirement for us because we receive data in different forms—flat files for pharmacy and enrollment, and a modified X12-837 format for medical claims,” says Mark Gaskill, APD program manager. “The enrollment files are relatively standard and represent our ‘cleanest’ data, so that’s what we use to create the basic Master Patient Index (MPI). Pharmacy and medical claims are then compared to the MPI; if there’s no match, we create a new ID for the patient. The Informatica solution does all of this with impressive speed and accuracy. Around here, we call it ‘the lean, mean, data-crunching machine,’ and I don’t think we’ve even come close to tapping its potential.”

Using intelligent algorithms and strategies, Informatica’s identity resolution technology emulates an expert user’s ability to recognize matches—and that’s just what the Utah DOH was looking for. “We don’t have a staff that can perform the matching function manually, so we needed a tool that acted like a very smart human being,” Gaskill says. “The Informatica Platform gives us the highest degree of linking with the least amount of manual intervention. When we looked at the multi-pronged, dynamic approach that the platform uses, there was really no question that Informatica was the best solution for us.”

Allen adds her own perspective on the Informatica Platform's contribution to staff productivity. "From a policy point of view, I wanted to make the solution as automated as possible. I want my staff focusing on things like new collaborations with researchers, new health reform ideas, and ways to improve public policy. I don't want to pay people to hand-link claims data. That's where the accuracy and efficiency of Informatica's solution really pays off."

The fact that the Informatica solution is system agnostic enabled the Utah DOH to meet its budget constraints when it came to the database and Web server elements of the APD project. And Gaskill can't say enough about the professionalism, depth of technical knowledge, and industry expertise of the Informatica presales team. "I spent several months doing due diligence before choosing Informatica, and I have to say that nobody even came close to what Informatica was able to do for us. Informatica is the backbone of the Utah APD."

Making Transparency a Reality

The Utah APD has many beneficiaries. The data will help payers better understand and reduce costs and payouts. It will help employers reduce the cost of health insurance for their employees. Ultimately, the data will also help consumers make more informed healthcare decisions, leveraging a Web-based summary database—still in the concept phase—to better understand the cost and quality of different providers, hospitals, and health plans.

"We see the Informatica Platform as absolutely essential to everything that we want to do, not only to meet our mandate for the All Payer Database, but also to start spreading that message outwards and help other projects move forward," says Allen. "Without the Informatica Platform to link across payers, people, and time, we would not be able to accomplish our goals with the Utah All Payer Database."

Understanding the true cost of healthcare is critical for effective reform. Thanks in part to tremendous support from the health plan community, the All Payer Database will help the Utah DOH identify new opportunities to promote healthcare transparency, improve quality, control costs, and inform healthcare consumers and policymakers.

Gaskill concludes: "The Utah APD represents a rich, deep, and growing source of healthcare data, which will continue to gain value over time. We needed technology that was both proven and flexible in terms of its ability to match records, despite errors and variations in the data. We also needed a solution that would scale cost-effectively to handle growing volumes of data. The Informatica Platform satisfied our requirements perfectly on all counts."

Learn More

Learn more about the Informatica Platform. Visit us at www.informatica.com or call +1 650-385-5000 (1-800-653-3871 in the U.S.).

About Informatica

Informatica Corporation (NASDAQ: INFA) is the world's number one independent provider of data integration software. Organizations around the world gain a competitive advantage in today's global information economy with timely, relevant and trustworthy data for their top business imperatives. More than 4,000 enterprises worldwide rely on Informatica to access, integrate and trust their information assets held in the traditional enterprise, off premise and in the Cloud.



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