

J P Systems, Inc.

Client Case Studies



Data Quality Improvement for Federal Enterprise HealthCare Client

In this Case Study on Clinical Data Quality Improvement, J P Systems helped a large Federal healthcare agency deal with the growing complexity of data and connections. By adopting a responsive integration architecture, the agency is positioned to grow and manage changes to technical or legislative requirements. With hundreds of hospitals and thousands of clinics to manage throughout the USA, this government healthcare provider can focus on delivering quality healthcare for patients while monitoring reliable metrics across its enterprise.

The Challenge

This client's Health Information Exchange (HIE) network required analysis of massive amounts of incoming patient data from a rapidly growing variety of internal and external healthcare partners and providers. The new status quo had become unwieldy to manage and new data quality issues arose with increasing frequency. They realized that without the necessary data quality work being done on the incoming clinical data, the value of their longitudinal patient record would not be there.

The coming HIE query volume was predicted to reach a billion records a day and to be exceptionally diverse. Their legacy system could not consume the new types of incoming HL7 message files available. Neither could they easily analyze or validate the new incoming messages. Their existing integration tools comprised of custom legacy systems were incapable of handling the growing diversity of data feeds now required by the organization. They were in need of new methodologies and tools to troubleshoot and fine tune the HIE. On top of that the HIE had to move from the legacy platform to a new joint agency platform.



Data Quality Improvement & Interoperability



First, we analyzed their interoperability requirements with internal and external exchange partners. Then we mapped their legacy systems to the fields in the newer HL7 message standards so they could implement the export and import of the new messages. This greatly expanded the types of standard HL7 messages which could be exchanged by their legacy systems. The new messages started flowing in and out. Finally, we assessed the network traffic to check for bottlenecks. Now over 3 million patients and their external providers have access to more complete and accurate longitudinal patient records.

We then undertook a detailed examination of the incoming partner data and were able to trace down the root causes of data quality errors coming into their legacy and replacement EHR systems. We then worked diligently and diplomatically to communicate with and educate the external exchange partners on exactly how to improve the incoming data quality for various clinical domains. We increased the interoperability of their data in both quantity and quality and onboarded 20,000 new external data exchange partners.

If you need to assess the data quality flowing into in your organization or would like a terminology or interoperability consultation with J P Systems, please go to JPSys.com and request a consultation by emailing us at Sales@JPSys.com. Please schedule a day or two in advance so we can make arrangements to have the correct staff available.

What is Interoperability?

A massive variety of data from diverse sources can bring high volume enterprises to the limits of their integration solutions. Interoperability means the ability of health information systems to work together within and across organizational boundaries to advance the effective delivery of usable healthcare data for individuals and communities.

