Case Study: Data Quality is Foundational for Patient Safety

A massive variety of data from diverse sources can bring high volume enterprises to the limits of their integration solutions. In this Case Study in Data Quality Improvement, you will learn how a healthcare organization dealt with the growing complexity of data and connections. By adopting an internationally standardized extensible and responsive integration architecture, the organization is now positioned to grow despite any changes to technical or legislative requirements.

ARTIFICIAL INTELLIGENCE NEEDS CLEAN DATA

The Client

With hundreds of hospitals and clinics to manage throughout the United States, this government healthcare provider is focused on delivering both quality healthcare and metrics, coupled with generating standard detailed clinical models which serve as inputs for Artificial Intelligence systems.

The Challenge

This client's Health Information Exchange network required analysis of massive amounts of incoming patient data from a growing variety of internal and external healthcare partners and providers. The new

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status quo had become unwieldy to manage and data quality issues were beginning to arise with increasing frequency. **They soon realized that without the needed data quality work, the value of their AI data would not be there.**

Their data sets are both high volume and exceptionally diverse. Their legacy system could not consume the many different types of incoming HL7 CDA files now available. Neither could they easily open, view, analyze or validate the new incoming CDA files. Their existing integration tools, comprised of custom legacy systems were incapable of handling the growing diversity of data feeds now required by the organization.

Interoperability and Data Quality Consultations

First, we analyzed their interoperability requirements. Then we mapped their legacy systems to the fields in the newer HL7 message standards so they could implement exporting and consuming the newer standard messages. This greatly expanded the types of standard HL7 documents 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 better and more complete longitudinal patient care data.

We also undertook a detailed examination of the incoming partner data and were able to trace down the root causes of data errors coming into their EHR system. 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.

If you want to assess the clinical data quality flowing into in your organization or would like a free terminology or interoperability consultation with J P Systems, please go to DQDoc.com to learn about our premier Data Quality Doctor service and schedule a free half hour consultation with us. Please schedule a day or two in advance so we can plan to have the staff available. Our free Data Quality Webinar recording may be seen on YouTube.

Better Data, Better Patient Care, Better Outcomes,

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