

HIMSS Clinical & Business Intelligence Community



Ask-the-Expert

Q&A with HIMSS C&BI Community Speaker, Brian Yeaman, MD, Chief Executive Officer, Yeaman and Associates from the January 2017 Community event -

Population Health Data: From Measurement to Action

Speaker: [Brian Yeaman](#), MD, Chief Executive Officer, Yeaman and Associates

Source: [HIMSS C&BI Community](#)

Event Date: January 26, 2017

Download the recording and slide presentation [here](#).

Session Description: Drowning in data and the optics of big analytics? Learn through real-life examples and experiences of Coordinated Care Oklahoma, a leading HIE that has embraced both the centralized and federated data models to deliver clinical value by weaving a patchwork quilt of data aggregation. We will discuss and demonstrate how information in a hybrid model can be provided to the right person, in the right place, at the right time, resulting in clinical impact at the bedside between a provider and their patient.

Q&A

Q: How were you able to gain Executive sponsorship for the required investment needed for your data analytics solution?

A: We had hit the critical element of exchanging enough data and high enough clinical utilization to support advancing the org and making the next investment.

Q: How did you decide on the selection criteria for the various data sources across the Health facilities in Oklahoma, Texas, Kansas, Missouri and Arkansas?

A: They were active in Oklahoma, by virtue of SSM Corporate and Mercy Corporate - we would up with facilities in those states.

Q: What technology components did you end up developing and what technology capabilities did you end up acquiring? How did you decide what to build and what to buy?

A: We utilized the Cerner Hub and Cerner Clinical Exchange Platform and LightBeam analytics. We worked with our vendors on development, but did not directly develop any platforms ourselves.

Q: Can you talk a little bit about some of the challenges that your team encountered around the Enterprise de-identification and re-identification of patients records?

A: We de-identify for reports for public health, but otherwise the patients stay identified behind the firewall of the HIE. We do not de-identify and then re-identify patients. We produced identified reports for health systems when they have a defined population and we see we have a Medical Record Number (MRN) on that patient from the health system requesting a report. Identified reports are not generally released to the requestors' competitors.

Q: Did you end up creating a centralized analytics dashboard of sorts for all of the constituents across your domain of healthcare participants and consumers of your solution?

A: There is a centralized dashboard for our clinical advisory. We are working toward individual portals where the population of patients are limited to that organization, but are inclusive of all the records we have on their patients.

Q: What unexpected surprises did you uncover around the quality, quantity, and/or access to data?

A: We cannot say that we were surprised, but your data is only as good as your weakest data contributors. Working around federation was a challenge.

Q: What are your plans to expand your unstructured data analytics going forward, using imaging data as an example?

A: Imaging utilization, repeats, avoided re-imaging, ROI on image shares.

Q: What is next on the roadmap for your outstanding solution?

A: Image sharing and using our master patient index (MPI) as a service with Nuance and Power Share.

Q: What are the challenges we face as the healthcare professionals regarding to not only collecting data but also setting accurate measures to collect them?

A: The challenge here is that the EMR's maintain 3-4 places to put certain measurements, but only one of those places will populate the report you need. Another challenge is that the information was scanned/faxed in and reviewed but was never populated as structured data to complete a report from the EMR. Thus, interoperability, data exchange, CCD's with reports containing structured data for imports and killing the scanner and fax machine in healthcare are our greatest challenges.

Q: It is understandable that providers rely more in accurate data collected to reach better clinical decisions. What measures should be implemented in our facilities to enhance data mining in today's care services?

A: The efforts we put forth are learning cycles. We do practice enhancement around one or two measures at a time. We educate on the measure (let's say smoking cessation and documentation) and we do clinical teaching, teaching on the EMR, show a pre-measurement, book a follow up and post measurement and if we hit our goal, we then move on to the next measure. It is EXTREMELY key in these efforts that the nurses and intake staff and medical records staff are also trained to help facilitate this. Doctors are the last one to change, and many times we can get the staff to change quickly and meet our measurement goal even if the provider still is not clicking the right boxes.

The below questions were posted in the Webinar Chat Box. Some may correlate with specific presentation slides; if so, slide # is noted. Download slide presentation [here](#).

Q: Slide 15 – For matching points across EMRs and other data sources, what was your logic for matching them?

A: We use a two-phase matching system within our master patient index that allows for a combination of auto-combines as well as manual reviews and merges.

- The first phase considers unique patient identifiers and offers an auto-combine if they are the same.
- The second phase considers a weight table that analyzes the patient's demographics. The algorithms used analyze how "strong" of a match they are based on a weight table we have setup to review those demographics. They can auto-combine still if the score is high enough or placed in a queue to be manually reviewed if the score is lower.

Q: Slide 15 – Would you be able to share the vendor used to support your MPI and federated repository?

A: Browsersoft

Q: Slide 17– Please share more about how you transfer or share large images such as CT or MRI scans? For example: Are those image sets shared real-time or delayed? Are they available directly within an EMR or PACS as with the clinical data you mentioned?

A: We decided against transferring actual images (to maintain quality) and instead query/retrieve images at the point in time. We both will link to existing images that we have received textual reports on, but also allow for a query out to the image sharing network, all within the aggregated view. These allow for the images to be real time via a web-based PACS viewer as well as viewed within the appropriate image requesters PACS after a download to maintain quality. They can be easily made available within an EMR if the member is launching the HIE's Community View that links to those images.

Q: Slide 23 – What governing body standards are you using for thresholds on your lightbeam reports?

A: The only thing that is standard is the point of care report. Any other reports are member specific, and only those patients can attest to participating in the care of over the last two years. Only that member sees their requested report; it is not generally circulated to their competitors. We can also do data exports. Our board can decide they want certain de-identified reports by patient/provider/health system for public health or research. There are many options here for members, but the key is that the member drives the detailed specific reports on patients to who they can attest. If they are requesting deep reports or repeated reports, they can contract for their own carved out instance of LightBeam that is populated and updated on the patients to who they are attesting.

Q: Slide 24 – Are Care Opportunities based on HEDIS measures or payer-specific measures?

A: HEDIS, some of the large private payers and custom per the ACO's right now. On LightBeam you can modify any report and save the custom on a per user basis. That is super nice depending on role type.

END OF ATTENDEE QUESTIONS