**Let’s Talk Innovation in Patient Identification**

Posted on [*August 3, 2017*](http://fhci.biz/2017/08/03/lets-talk-innovation-in-patient-identification/)

Today it is extremely problematic when patient identification data does not allow the automatic linking of records to support care coordination, analytics, research, or value-based reimbursement activities. Healthcare organizations, especially medium to larger ones, have tens of thousands to hundreds of thousands of records that can’t automatically be resolved and require expensive human resources that simply can’t keep up with the volume. It’s clearly time for innovation.

I recently authored an article published in the Journal of AHIMA, [Applying Innovation to the Patient Identification Challenge](http://bok.ahima.org/doc?oid=302193#.WYB2dtPyuYU), and will be speaking on this topic at the 2017 AHIMA Conference in October. The article features case studies where innovation is being applied with success.

**Using cloud data services to gain trust in your data**

As cloud computing has become more mainstream, it’s opened an avenue to incorporate secure external data services into critical business processes such as patient registration, data exchange, and patient identification.

Cloud-based data services enable the infusion of referential or authoritative data that may come from large public databases to “enrich” in-house data for more accurate patient identification.

Tom Check, CEO, Healthix, the largest public health information exchange (HIE) in the nation, serving a comprehensive range of organizations in the greater New York City area, stated that “the volume of data and automation applied to analytics necessitates timely, trusted, and comprehensive views of the patient/consumer data.”

* Before applying external referential data to augment identity reconciliation, Healthix had 25.4 million actual identifiers (persons)
* After four months using referential data (while the identifiers continued to increase), Healthix resolved the data to 21.9 million unique person records that are now available to meet the key clinical and operational needs

**Auto-stewarding with neural networks**

Machine learning through neural networks is being applied to resolve the ambiguous duplicate and linkage data prevalent in healthcare. This technology is “trained” to recognize the human decision-making process that is today applied to the ambiguous data. This very cost effective, time efficient approach frees the human data stewards to address the more difficult datasets.

St. Joseph Health, based in Orange County, CA, conducted a robust proof of concept project using machine learning that demonstrated:

* Financial savings of up to 80 percent per task can be achieved using automated tools, exclusive of management and overhead
* Auto-stewardship estimated costs of $0.40 to $0.75 per task while estimated cost per task resolved by human intervention ($3.11 based upon rate of $25 per hour)

Beyond the quantifiable savings, the value of having accurate, linked data to support consumer engagement and population health activities is immeasurable. Director of HIM and Privacy Officer at St. Joseph Health, Kathy Fitzgerald, stated that “applying machine learning through neural networks ‘training’ helps us meet our goals in this era of cost containment and data analytics.”

The [article](http://bok.ahima.org/doc?oid=302193#.WYB2dtPyuYU) details these cases and explores the data governance implications also. I hope you will give it a good read.  
The depth of innovation, and agility that is being applied gives me hope that better solutions are bringing better service to consumers, members, citizens, and patients.

If you are attending [2017 AHIMA Annual Convention](http://www.ahima.org/convention/schedule), please join Tom Check, CEO of Healthix and me on Wednesday, Oct. 11, as we discuss agile innovations that are bringing value to all aspects of healthcare.

Many thanks to my co-authors Michele O’Connor of Collibra and Jim Burke from Himformatics, LLC. as well as my editor Maria Diecidue. There are many things in life that require “a village” and publishing is certainly on the list!