



**STATEMENT of
The Primary Care Information Project
of the
New York City Department of Health and Mental Hygiene
Before**

**HIT Policy Committee
Meaningful Use Workgroup and
Certification and Adoption Workgroup
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**Clinical Documentation Hearing - Panel 3
Role of clinical documentation for population and public health**

My name is Michael Buck, PhD and I am the Director of Biomedical Informatics for the Primary Care Information Project within the New York City Department of Health and Mental Hygiene (NYCDOHMH). I also hold an adjunct faculty position within the Department of Biomedical Informatics at Columbia University.

The Primary Care Information Project (PCIP) is a bureau within the NYCDOHMH formed in 2005 with the mission to develop and implement a public health-enabled EHR in ambulatory primary care practices serving the medically underserved.^{1,2,3} In March 2010, PCIP expanded its scope to include all providers to help them meet meaningful use objectives as the NYC Regional Electronic Adoption Center for Health (NYC REACH). As of February 2013, PCIP has helped 8,145 providers in ~1,000 practices to adopt and use an EHR.

As part of a health department, PCIP focuses on using aggregate clinical data to measure the health of the community, assess gaps in care, allocate resources through informed policymaking, and provide feedback to providers to maximize care delivery. Through our partnerships with multiple EHR vendors, PCIP has received regular daily and monthly transmissions of aggregate count data from its network of practices in a variety of areas including acute/chronic disease quality measures, syndromic surveillance, meaningful use, ad-hoc clinical queries, etc. As PCIP we have limited our EHR data usage to aggregate counts which means we do not require any patient PHI to implement our programs. This aggregate data approach allows us to minimize privacy risks, maximize provider participation and to simplify technical implementations.^{4,5,6}

Following this strategy PCIP has worked to acquire its data from a number of EHR/HIE vendors including: eClinicalWorks, EPIC, NextGen, MDLand, Greenway, Intersystems, among others. Despite our simplified approach, most of these data transmissions required significant effort in both time and resources over periods of months and sometimes years for these vendors to define the queries to retrieve the quality measures of interest as captured in each of their unique proprietary data sources. Furthermore as the pace of healthcare issues continues to accelerate, we have found it necessary to alter our strategy from acquiring a limited number of highly specific quality measure queries in favor of more generic and dynamic ad-hoc query based platforms to be able to meet our needs.

For example, instead of building individual quality measure transmissions for diabetes, cancer, influenza, STDs, etc. and managing individual registries for each, PCIP has the ability to query EHR/HIE data platforms in near real-time for each of these conditions. As described in our JAMIA paper⁷ in 2011, we have a network of 600 eClinicalWorks ambulatory practices that can receive our own custom-built quality measure queries every night and will report back the next day, allowing us to take a real-time pulse of ~20% of the NYC ambulatory care market. Similar dynamic query platforms have also been built with the EHR vendors, MDLand and Greenway. This system enabled us to quickly conduct assessments of the availability of primary care services and the incidence of respiratory illness in Hurricane Sandy-affected areas of the city. It also allows us to measure the impact of new public health campaigns among many other uses.

While we have enjoyed great success with our current systems and approach, in order to scale beyond a handful of vendors requires national interoperability standards be defined and implemented to enable dynamic, distributed querying of many clinical data sources. Fortunately over this last year the Query Health initiative^{8,9} within the ONC S&I Framework has targeted

this exact area. I have participated extensively as the clinical workgroup chairman and worked with a great number of dedicated experts in this area from across the country. The Query Health workgroups have surveyed existing interoperability standards and identified the key elements needed to enable the development of dynamic, distributed query platforms. First, we identified the need for a common clinical data model and value sets based upon the Consolidated CDA, QRDA, and National Quality Forum's Quality Data Model (QDM) as the primary source of information. Second, a common query definition syntax as defined by the HL7 Healthcare Quality Measures Format (HQMF). Along with the appropriate policy and privacy guidelines, these clinical and technical standards are now being field tested by multiple Query Health pilot sites using production-ready tools including i2b2, PopMedNet and hQuery. Updates to these standards are being passed through to the appropriate HL7 standards committees to respond to the needs identified by the pilot locations.

While the interoperability standards will continue to be refined through pilots and evaluation this year, the core pieces of these standards are already required for 2014 EHR Certification for EHR vendors as relates to quality measurement capability for Stage 2 of Meaningful Use. It is our recommendation that in Stage 3 of Meaningful Use, EHR vendors be required to extend their existing systems further. They should move beyond the limited evaluation of a handful of individually specified HQMF CMS measures, to "query platforms" in which multiple clinical questions for public health, research, new payment models, etc. could be explored and answered dynamically and on-demand. Particularly for public health institutions which need to maximize every technical investment, integration with these platforms is preferable to supporting a limited number of quality measures and registry interfaces that will not meet emerging healthcare needs and outbreak scenarios.

We also recommend that the statewide HIEs and their associated vendors receive ONC guidance and support to implement similar dynamic query platforms as many are pursuing the development of significant data repositories. Last month, PCIP in partnership with the New York State Department of Health started its work to integrate the Query Health platform into our statewide HIE network as managed by the New York eHealth Collaborative. We anticipate that this platform will be one of a number of critical HIE tools that will be developed to support the emerging population health data needs of our departments.

Our third area of recommendations is to encourage and require vendors to develop quality feedback mechanisms within their systems in the form of reports and actionable summary dashboards. Providers continue to have issues documenting items such as race/ethnicity, socio-economic status, smoking status, alcohol use, depression screening, among others which are critical for public health evaluations. For these problem areas PCIP has produced provider-level dashboards that compare their individual performance with the community average for similar providers. These dashboards include specific EHR utilization metrics as well as clinical quality measures which ensure providers are developing the proper documentation habits that lead to informed clinical decisions and outcomes. From our experience, it appears that providers can be motivated to improve performance when rated against their peers both with and without financial incentives in various clinical areas. In addition, by feeding this information back to providers we have observed that they begin to appreciate the population-level benefits of capturing certain information at the point-of-care whereas they may have had little motivation to capture it in the past.

A fourth area of concern is the continued lack of uniform adoption and dissemination of laboratory order and results reporting standards such as LOINC by national, regional, and local laboratories making it difficult to produce interoperable reports for public health based upon this critical area of clinical documentation. We have attempted to create our own universal lab compendium with the assistance of the primary lab companies in the NYC area however without national standardization and implementation there has been too little motivation and long-term commitment from EHR vendors to use these compendiums in an interoperable and sustainable manner.

In summary our recommendations are:

1. To support the development and implementation of dynamic query platforms as described by the Query Health initiative as opposed to a limited number of specific quality measures for EHR/HIE vendors.
2. For ONC to provide support and policy guidance to require the statewide HIEs and their associated vendors to implement dynamic query platforms to respond to ad-hoc clinical queries.
3. To encourage and require EHR/HIE vendors to develop quality feedback mechanisms for providers within their systems in the form of reports and actionable summary dashboards.
4. To find a national solution to meet a marketplace gap which lacks universally standard and implemented lab compendiums for use by EHR/HIE vendors.

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