The State of Public Health Data Standards

Observations From the Front Lines Trying to Connect Healthcare

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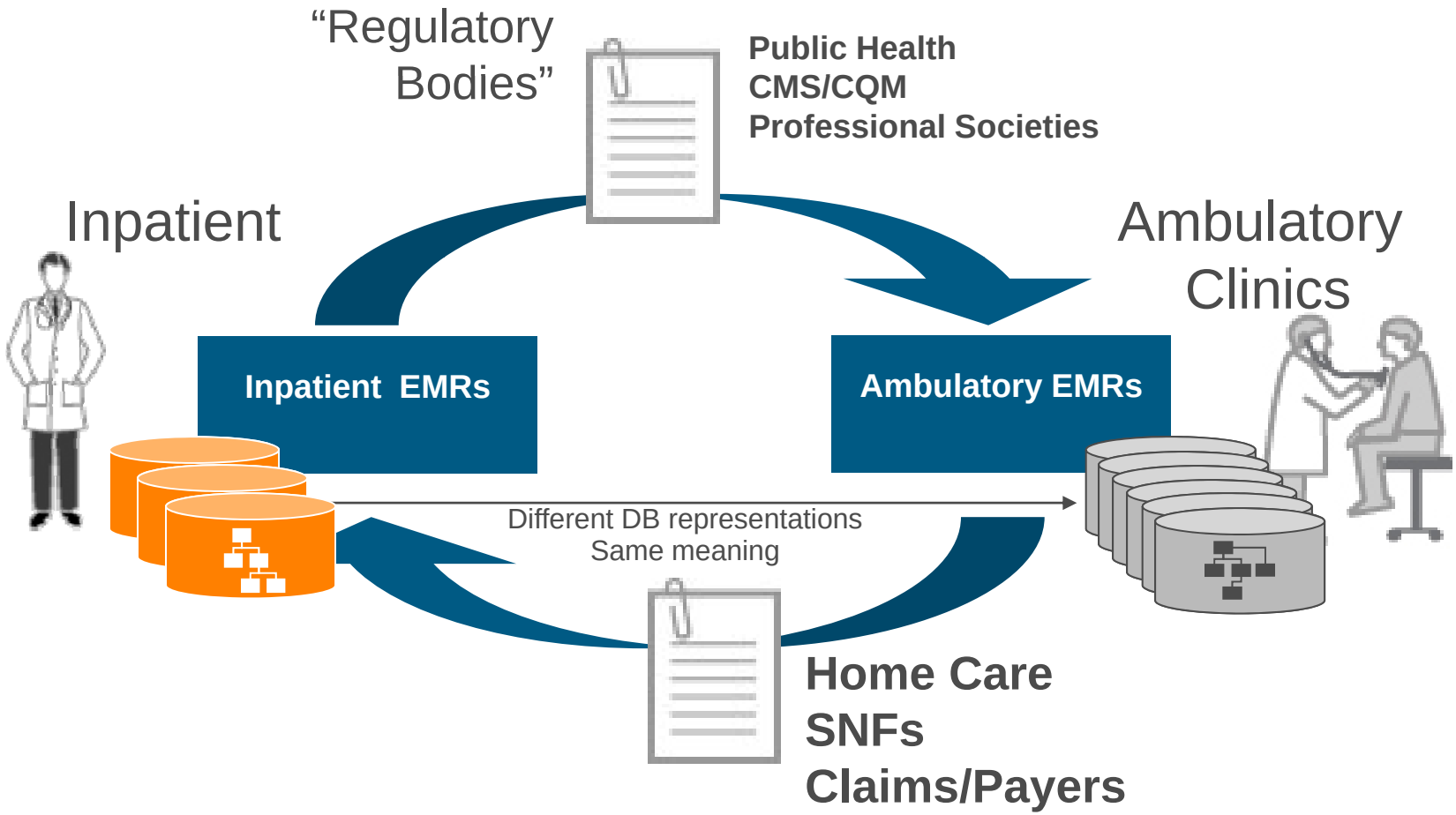
HEALTHCARE TECHNOLOGY

WE CONNECT THE ISLANDS OF AUTOMATION THAT EXIST OUT THERE ACROSS THE HC ECOSYSTEM



SERVING STATEWIDE HIE, PROVIDER NETWORKS, PAYERS

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Public Market

- Building the “interstate” for information exchange
- Millions of patients each
- Integrating claims, clinical, administrative data across stakeholders
- Advanced portals and applications

Provider Market

- Helping IDNs get their own house in order
- Deep clinical data and workflow integration
- Patient and Provider Portals
- Clinical alerting solutions

Channel Partners & Research

VESTED INTEREST IN REDUCING THE FRICTION COSTS OF MOVING HEALTHCARE INFORMATION

CareEvolution, founded in 2003, has been connecting participants across Public, Provider, Payer, and Research Markets

42.1 million patients

488 hospitals

2,848 physician practices

71 free clinics and home care agencies

62,200 users

WE VIEW THE PHIN IN THE CONTEXT OF THE OVERALL HIT/NHIN FRAMEWORK

Figure 2 PHIN - The Population Health Portion of the Nationwide Health Information Network. PHIN will utilize and expand the Meaningful Use objectives, as well as the standards, services and policies of the Nationwide Health Information Network to advance population health outcomes and public health practice.

CURRENT STATE OF PUBLIC HEALTH RELATED STANDARDS

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Strongest → **Weakest**

HL7 Standards Specifications	**Transition to 2.5.1 Has Been Slow and Painful**	**Any More Innovation Here – "Too much of a good thing"**
Vocabulary: PHINVADS – amazing resource	**Variation within and between MU II and PH requirements**	**Configuration within EMRs to require documentation at needed level**
NIST Test Tools for PH	**MU Certification Requirements for PH too low**	**MU content requirements too weak**
Biosense 2.0		**CDA MU II Specifications incompatible**

INCENTIVES AND DRIVERS FOR EHR TO PUBLIC HEALTH INFO EXCHANGE

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- **MU** - especially MU II is the dominant driver in providers investing in public health reporting capabilities
- Challenges
  - **Too Many Standards**
    - MU II CCDA TOC/VDT do NOT match up PH requirements (example VFC, vaccine information sheet)
    - Must also invest in HL7 2.5.1
  - **GIGO Principle**: EMR configuration requirements do not line up with granularity and content requirements for IZ, ELR, and Biosurveillance – results in "soft errors" ; i.e. valid messages but inadequate content
  - **Testing**: If it is not in MU testing, it does not work in the EHR so…
  - **Mission Confusion**: mixing inventory control with "reporting" has grievous consequences for automating reporting – "administration facility"
  - **Transport**: Too many - CDC IIS (Soap), HTTPS, SFTP, PHINMS, Proprietary; really should either rethink PHINMS or drop it; forbid proprietary
  - **Jurisdictional choice:** difficult to scale when there are national vendors for EMRs

IMPLEMENTATION CHALLENGES

- **Analog or Portal Heritage** of Most State PH Departments : servers, bandwidth, operational processes simply not designed for at scale operations
  - Technical / Server Infrastructure
  - Transport flexibility or lack thereof – typically not prepared for message level security
  - Testing harnesses and processes typically non scalable
  - Operational considerations – facility/user ID legacy
- **Radical variation in technical capability** by state and reportable item – great IZ but dubious ELR infrastructure
  - Multiple contact points
  - Multiple technology standards
  - Biosense 2.0 great example of rationalizing this variation
- **Strained relationship** with regional and state HIEs – perceive a sense of competitive guarding in some cases

OTHER CONSIDERATIONS…

- **Bidirectionality**: current standards quite immature in contemplating digital providers who seek and need discrete data back in their own EHRs. "Reporting" is only half (if that) of the problem
  - Minimal to no requirements within MU for retrieval and effective utilization with the edge systems
  - What is the gold standard for immunization information for a patient – the primary care physician or the state IZ registry? This is a false choice.
- **Latency / Frequency**: no consistent guidance or expectation here; again results in weakening the trust in the system overall
- **Patient Matching** : in particular for IZ; minimal expectations for patient matching for ISS results in lack of trust in query which is nearly mortal wound for the overall fabric
- **Privacy / Security**: aggressive interpretations within geographies result in a perverse situation where data being hostage in the "public" health system

RECOMMENDATIONS

- Harmonize MU II PH and MU II TOC and VDT requirements
- Raise the bar on C-CDA so it matches content requirements of HL7 2.x requirements for PH
- Rationalize number of transport methods supported / allowed
- Encourage or compel state public health agencies to work with statewide and regional HIEs
- Provide framework to monitor and track patient matching real world performance within IIS
- Distinguish inventory control from reporting in VFC and other IIS
- Provide guidance/advisory opinion on best practices for balancing the requirements for security / privacy (for example SAMSHA position paper on HIE) with the need to share information by public health departments
- MU EHR certification requirements should be tightened to assure configuration