Harnessing the Power of EHRs & Health IT to Improve Care, Health, and Efficiency: *The Next 20 Years*

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I WILL DISCUSS THE FOLLOWING HIT TWO-DECADE IMPACT AREAS

• The evolving *digital health milieu*

• The *health data-economy* shift

• The challenges of *interoperability*

• The new *e-patient / e-clinician* dyad

• HIT as an enabler for *population health*
THE DIE IS CAST

HEALTH IT AND E-HEALTH ARE RAPIDLY BECOMING THE “VIRTUAL GLUE” OF THE HEALTH CARE SYSTEM
FOR 5 DECADES, GETTING PAID HAS BEEN THE MOTIVATION FOR MOST HIT

FROM HERE ON, SUPPORTING THE CLINICAL CARE PROCESS WILL BE HIT’S RAISON D'ÊTRE
The shifting US “data economy” – the transition from claims to EHR systems

Estimated % of health care contact information captured primarily by claims vs. EHR systems, US 1980-2040

Source: Weiner and Salzberg JHU – Work in Progress
TODAY, LESS THAN 5% OF US EHR / HIT SYSTEMS ARE FULLY INTEROPERABLE

BRIDGING THESE HIT SILOS WILL BE THE CHALLENGE OF THE DECADE
Source of Graphic: New Orleans Beacon Exchange
HIE “Deliverables” by Constituency

- **Hospitals:**
  - Clinical messaging
  - Medication reconciliation
  - Shared EHR
  - Eligibility checking

- **Physicians:**
  - Result reporting
  - Secure document sharing
  - Shared EHR
  - Clinical decision support
  - Eligibility checking

- **Laboratory:**
  - Clinical messaging
  - Orders

- **Public Health:**
  - Needs assessment
  - Biosurveillance
  - Reportable conditions

- **Consumers:**
  - Personal Health Records
  - Consumer health apps

- **Researchers:**
  - De-identified longitudinal data

- **Payers:**
  - Claims adjustment/payment
  - Quality measures / P4P
  - Secure document transfer

*Adapted from: HiMSS*
As HIT / e-Health supported infrastructure becomes the norm, real-time in-person patient / doctor interactions will decrease substantially.
15% or more of care will soon be real-time but “remote,” using telemedicine and “e-referrals”
Mobile health apps and biometric devices will increase exponentially as care alternative / adjunct.
• 10-25% Gains in Efficiency
• 10-20% NP/PA Delegation
• 5-15% Specialist to PCP Delegation
• 5-15% “Remote” Care
• 10-20 “Asynchronous” Care
MAXIMIZING HEALTH (AND VALUE) FOR POPULATIONS

HIT WILL MAKE IT FEASIBLE … AND INEVITABLE
HIT WILL ALLOW GREAT ADVANCES IN POPULATION HEALTH

- Ways to integrate disparate “numerators” & “denominators” to define true populations and communities.
- Models and tools to help medical care systems move towards “population value” perspectives.
- Advanced tools for extracting and analyzing unstructured data from many sources.
- Standards and frameworks for integrating across EHR / IT vendors to achieve true community standards.
Hot-Spotting Baltimore Hospitalizations Using HIE Data

Source: CMS Innovation Planning Grant Received by the Maryland DHMH
Conceptual model for the “Maryland Population Health Information Network” (M-PHIN) in Support of the new All Payer Population-Based Global Budget Hospital Payment System

MD All-Payer Population Health Analytics Core

State-wide Population Health Data-warehouse

- Claims (HSCRC, CMS)
- National Data (HCAHPS, CDC, QBR, PQI)
- Local PH Metrics (Md SHIP)
- New Data Sources?

Provider to DHMH

DHMH to Provider

Informatics Unit at HSCRC/DHMH
A
B
C

EHRs 1…n

HIE (CRISP)

DHMH

Providers

JHU Measurement Workgroup
IN CONCLUSION

THE NEXT TWO DECADES WILL BE THE MOST DYNAMIC AND EXCITING TIME EVER IN THE FIELD OF HEALTH IT / E-HEALTH
Questions / Further Information

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