Improving Primary Care and Public Health Integration

Evaluation using the Public Health Information Technology Maturity Index

Advancing Global
Health & Health Care

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Bio

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No Conflicts

Partners

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Advancing a Better State of Health

primary care coalition of Montgomery County, Maryland

Montgomery County Maryland 1776

With support from

Robert Wood Johnson Foundation

National Coordinating Center for Public Health Services and Systems Research (**PHSSR**), based in the **UK** College of Public Health

Background

- Pressing need to improve integration and coordination across somatic, behavioral and social services
- Efficiency challenges fulfilling public health mission
- Range of technology choices, strategies and policies available
- Opportunity to leverage data and information systems more effectively
- Lots of investment, unclear ROI
- Natural experiment

Project Aims

1. Assess the implementation of an EHR designed to better integrate the public health and primary care delivery systems
2. Measure and document the effects of an EHR for public health and primary care integration, especially on improved behavioral health management at individual and population levels
3. Develop a tool, the Public Health Information Technology Maturity Index, that captures the capacity of diverse IT systems to inform improvement in public health systems

Maturity Models

- Establish goals for achieving and measuring progress
- Benchmarking
- Documenting success factors
- Several existing maturity models which target health care (HIMSS, IDC, Quintegra, UK NHS) … not in public health

Coordination gaps

"…when a person comes in, we do a complete biopsychosocial; so it's at that point that we identify medical needs, psychiatric needs, social needs, housing needs, financial needs – we identify all those. Then, if the person has not obtained a connection for those services, we say this is where you need to go…. Now, we don't know if someone has already sought [social] services already unless the person tells us …"

- Psychiatric nurse at substance abuse clinic

Positive expectations

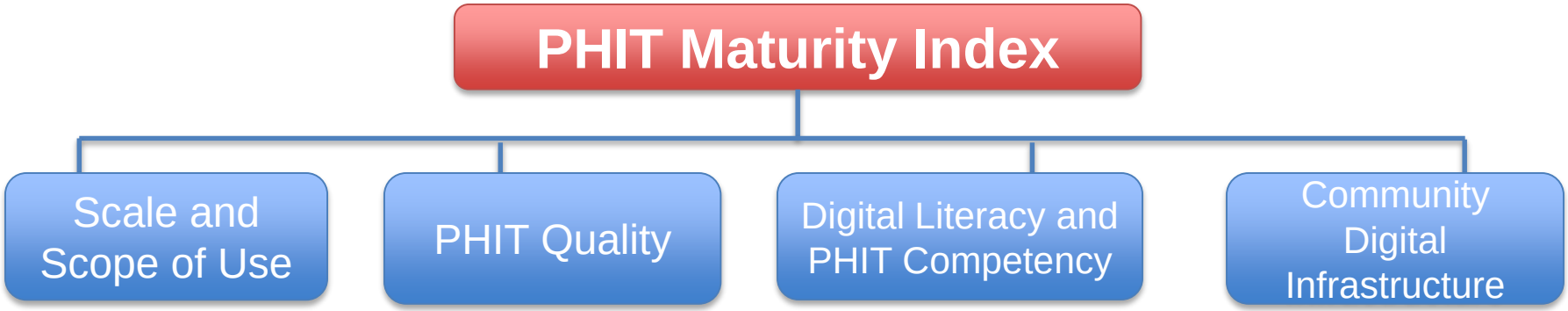
- "…I look forward to having the electronic records here in the government because it's needed and it will be more efficient, it certainly will cut down on some of the repetitiveness and it will cut down on the amount of time that you spend reporting and tracking down information…"

  - Behavioral health staffer

Early implementation issues

- People have difficulty getting information
- EHR System feels designed for single practice… difficult to support unique needs for behavioral and public health services
- Limited configuration capability
- Reporting requirements not being met
- Additional visibility being gained

PHIT Maturity Index (Beta Model)



- **Nature of Use**
- **Extent of Use**

- **System Quality**
- **Information Quality**
- **Interoperability and Standards**
- **Privacy and Security**

- **Community Digital Literacy Level**
- **Community Digital Literacy Training**
- **Workforce Competency**

- **Community Partner Infrastructure**
- **Internet Access and Use**
- **ICT budget allocated / available**
- **Open data and Innovation**

Scale and Scope of PHIT Use

- The Scale and Scope category of PHIT Use refers to what types of systems are being used, applied to what activities, and the breadth of system use.
- Sub-dimensions:
  - Nature of Use
  - Extent of Use

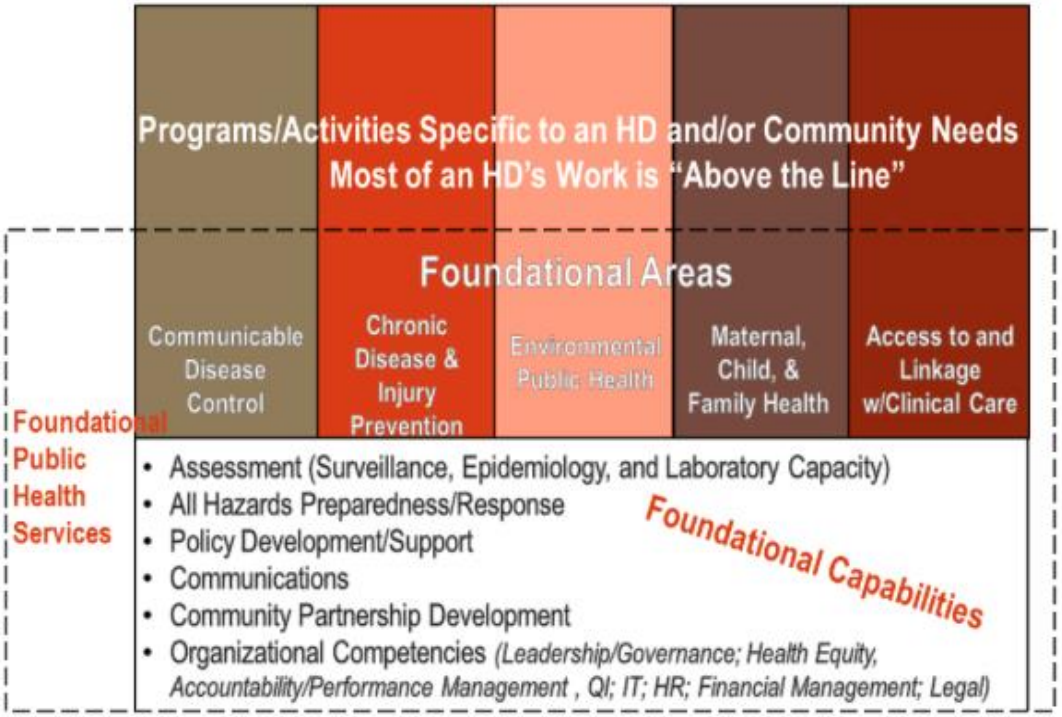


Image: Resolve.org

PHIT Quality

- The *Quality of PHIT* category seeks to capture the degree of “excellence” embedded in the PHIT.
- Sub Dimensions:
  - System Quality
  - Information Quality
  - Standards and Interoperability
  - Privacy and Security

Digital Literacy and PHIT Competency

- The set of skills and knowledge that are essential for productive interactions with technology-based tools.
- Sub-dimensions:
  - Digital Literacy Level (Community)
  - Digital Literacy Training (Community)
  - PHIT Training (Workforce)
  - PHIT Competency (Workforce)

Community Digital Infrastructure

- How “wired” a community is and the degree to which public health ecosystem partners have implemented digital systems and exchange information electronically
- Sub-dimensions:
  - Internet Access and Use
  - IT Budget allocated/available
  - Community Partner Infrastructure
  - Health Information Exchange
  - Open Data and Innovation

Next Steps

- EHR Implementation Final Go-Live was July 7th
- Post-implementation data collection and analysis
- Undergoing a Delphi Study with initial PHIT Maturity Index
- Finishing phase one of project February 2016
- Future
  - Comparative assessment of PHIT maturity across multiple systems

Engage with us

- Follow the project blog
  - https://blogs.rhsmith.umd.edu/phit/
- Comment on the initial model at
  - http://go.umd.edu/PHITMaturityIndexDraft

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Appendix

- References
- Survey constructs

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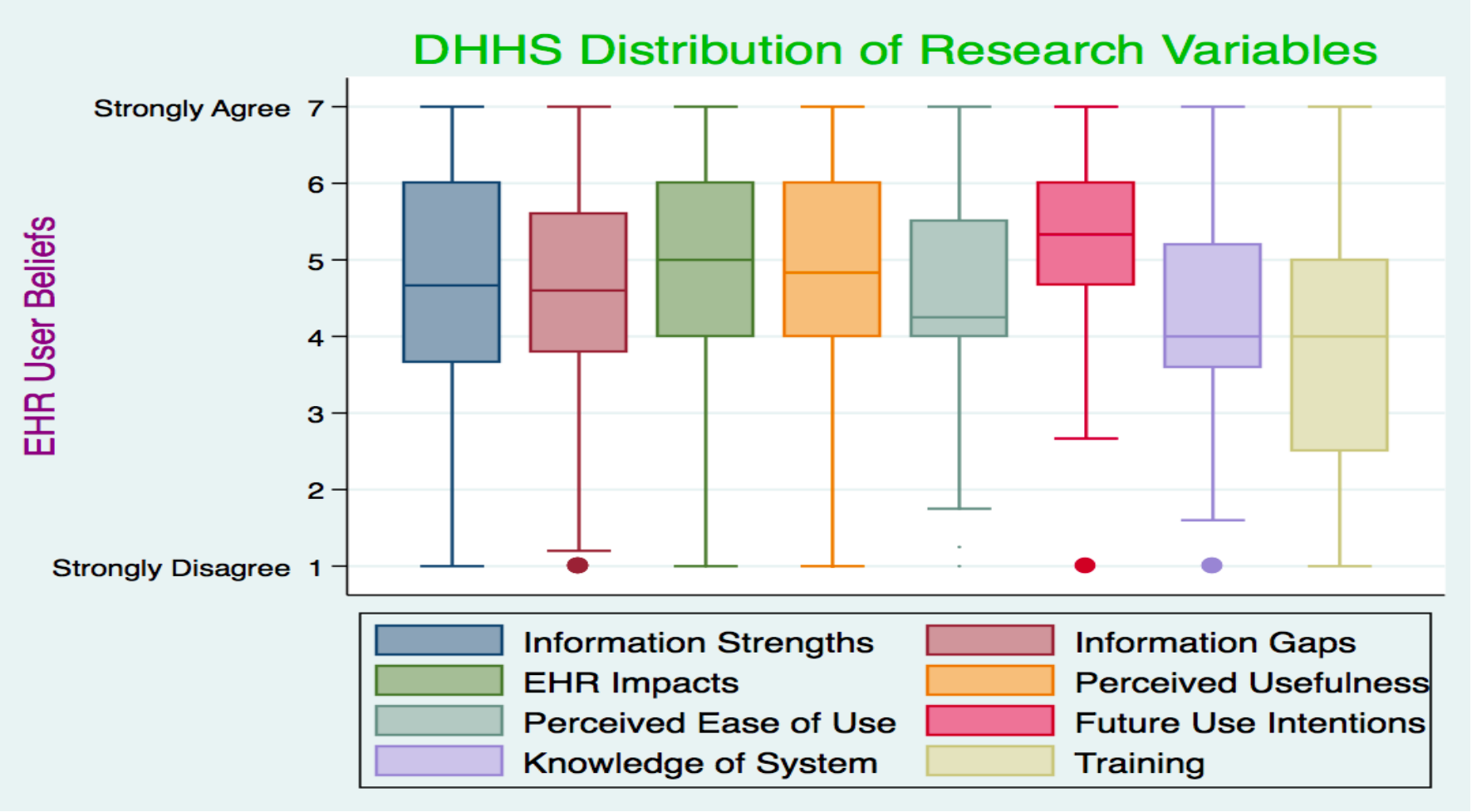
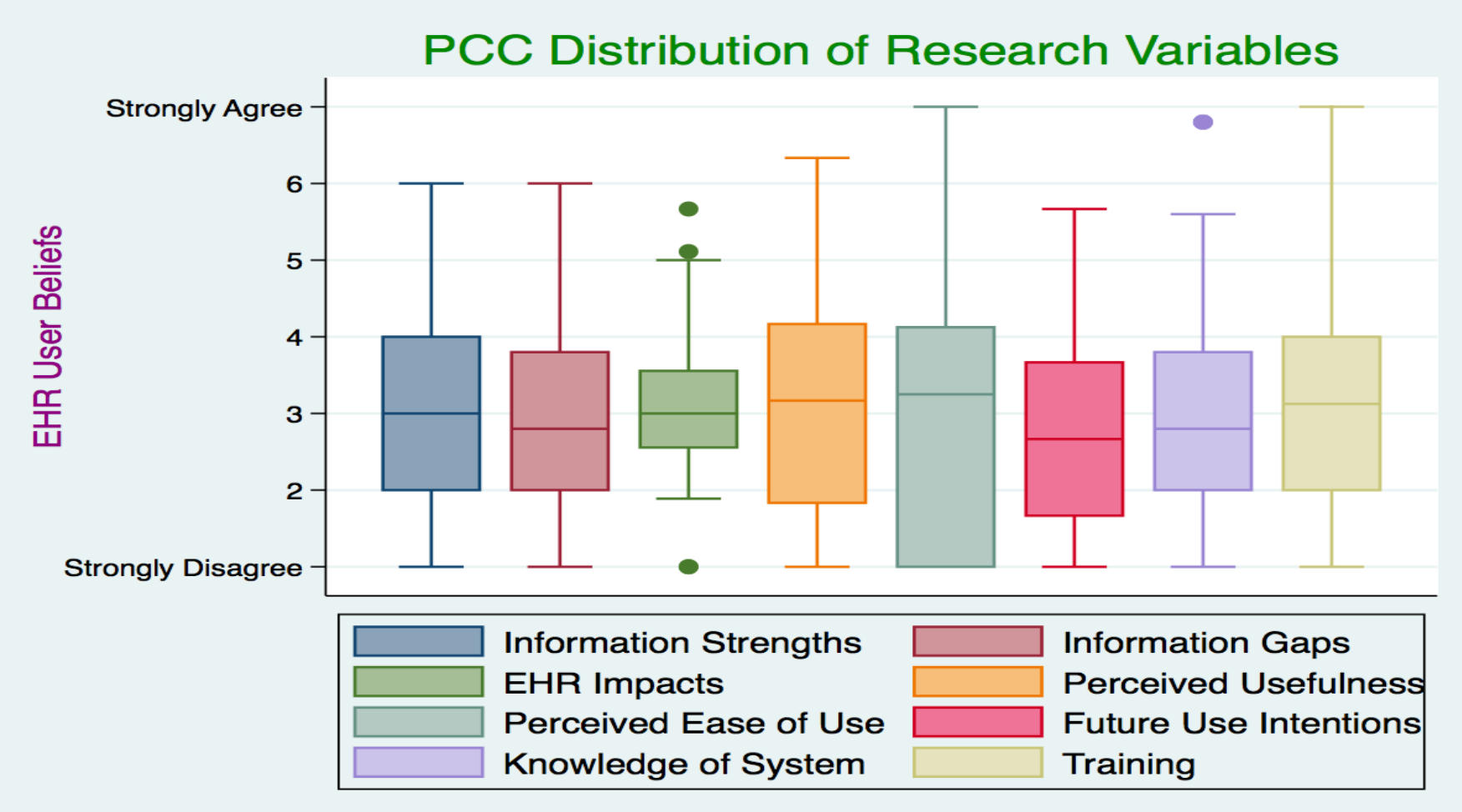
User Survey Constructs

Construct	Meaning
Information Strengths	The characteristics of the Information currently available in the system in terms of its perceived comprehensiveness, quality and accessibility.
Information Gaps	The intensity of perceived issues in the process of acquiring and using information with the current system(s).
EHR Impacts	The perceived potential influence and benefits that EHR usage would deliver.
Perceived Usefulness	The perceptions that system use would aid in accomplishing tasks in an efficient and effective way
Perceived Ease of Use	The degree to which a person believes that using a particular system would be easy to learn and may perform tasks with system with little effort.
Future Use Intentions	The willingness of a person to adopt, increase use and explore the system.
Knowledge about the System	The extent to which the users perceive they know how to use, why to use and receive adequate system support.
Training	User satisfaction with the training programs.

Pre-EHR Implementation Survey Analysis



Early-EHR Implementation Survey Analysis



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Name: P. Kenyon Crowley Date: MAY 18, 2015

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