

Background

- The quality, cost and effectiveness of population health management in communities nationwide is critically dependent on effective coordination across primary care and public health organizations.
- Public health information technology (PHIT) provides unique opportunities for improved integration and coordination across public health systems and primary care providers.
- Limited evidence and understanding currently exists to aid communities in determining how effective their PHIT systems are for achieving care coordination and other public health goals.

Research Objectives

- Aim 1:** Assess the implementation of an EHR designed to integrate the public health delivery system and primary care in creating effective and efficient public health information technology systems.
- Aim 2:** Measure and document the effects of an EHR for public health and primary care integration on improved behavioral health management at individual and population levels.
- Aim 3:** Develop a Public Health Information Technology Maturity Index (PHIT MI), that captures the capacity of diverse HIT systems to inform health care improvement and integration.

Data Sets and Sources

Setting: 12 primary care clinics and 7 health and human services sites

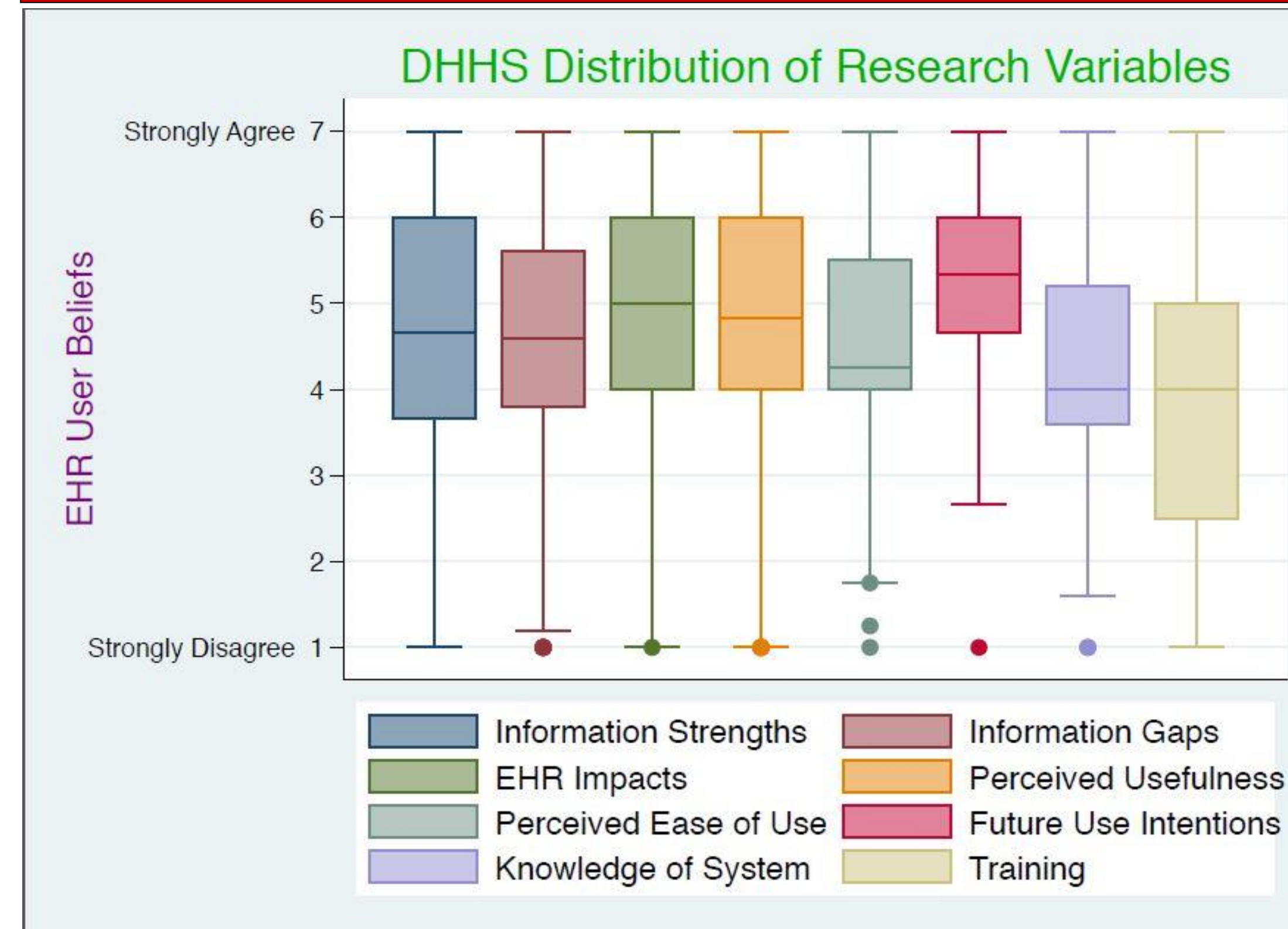
Data:

- Pre and post implementation structured interviews, observations, and surveys of public health and primary care electronic health record system users
- Pre and post implementation patient focus groups
- Behavioral health specific case studies that are both common and nuanced to manage.

Study Design and Analysis

- Aim 1:** Qualitative and quantitative techniques of EHR implementation of using interviews, observations, and surveys of users and stakeholders.
- Aim 2:** Quantitative comparisons of multiple outcomes related to the prevention, communication, delivery and effects of behavioral health services across four groups of facilities: those not adopting the common EHR (control group) and those adopting the EHR (treatment group).
- Aim 3:** Synthesize and consolidate the data collected in Aims 1 and 2 to extract constructs and items that are relevant to for the construction of a public health information technology maturity index

DHHS User Survey Variable Distribution



Preliminary Pre-Implementation Results

- Interviews (n=46):**
 - Main attitudes: mostly Positive, varied by location, implementation status, and age of employees
 - Main concerns: reliability of program, privacy issues, connectivity, training, reporting function
- Observations (n=15):**
 - Main attitudes: varied from frustration to excitement and relief
 - Main observations: varied from post-encounter data entry to personal tablets/laptops
- Focus Groups (n=2; 15 participants):**
 - Main concerns: connectivity, efficiency, privacy/security
- Survey (n=370):**
 - Mostly positive for Ease of Obtaining Information and Information Quality; Efficiency, Patient Safety, Satisfaction; and Job Performance sections
 - More mixed results for Ease of Use and Compatibility; Long-Term Goals and Usage; and Training sections

Findings, Conclusions, and Implications

- Early results show information gaps and process limitations to effective care coordination and public health practices.
- Promise exists for better use of public health information technology.
- There is a need for strategies to guide system design and investments that facilitate more effective information management practices and a learning health system.
- A PHIT Maturity Index may guide investments and policy decisions for PHIT design, selection and related strategies.

For More Information

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Draft Maturity Model

