Using Health Information Technology to Improve Chicago PWLHA Engagement-in-care

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Background

- 2015 NHAS HIV care cascade goals re: retention-in-care
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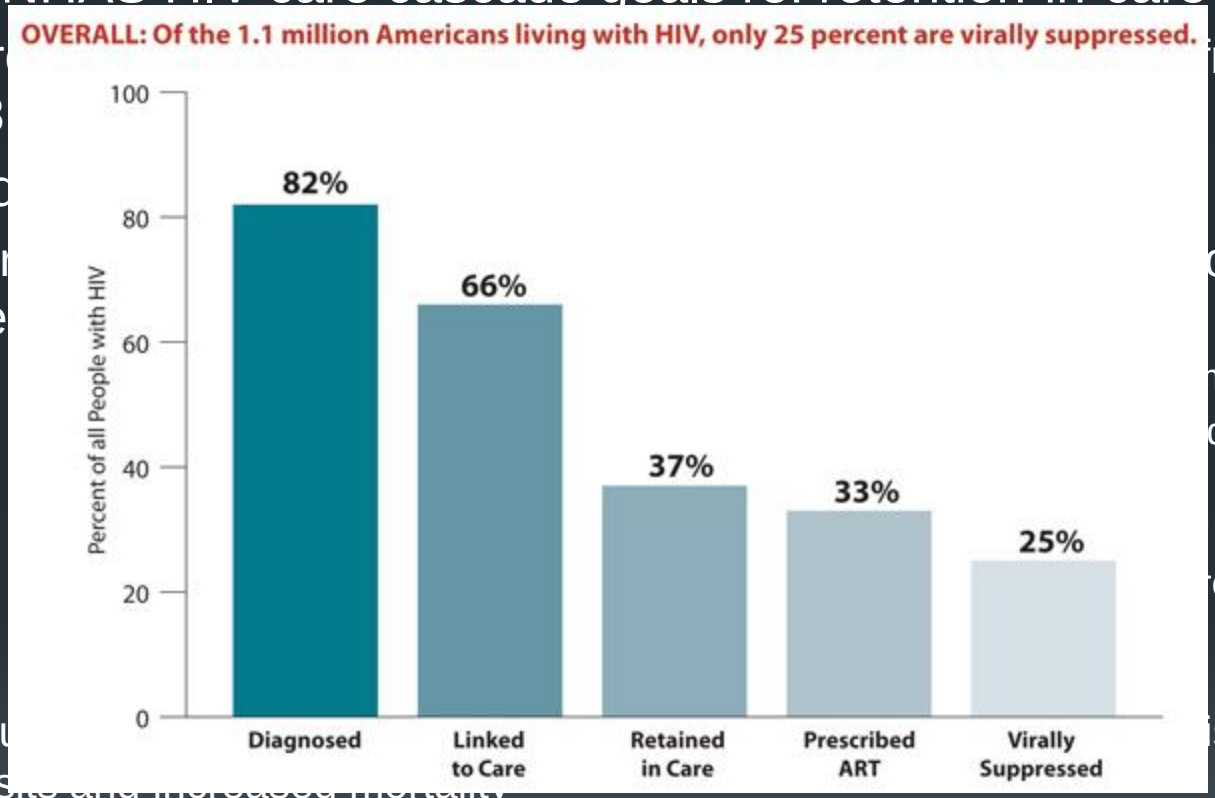
    - Mu… …issed vis… and increased mortality
      - Looked at a cohort of > 500 patients for associations with mortality among these patients.
      - On multivariate analysis patients who missed visits within the first year of initiating ARTx had an increased hazard ratio for death (HR 2.9, 1.28-6.56)

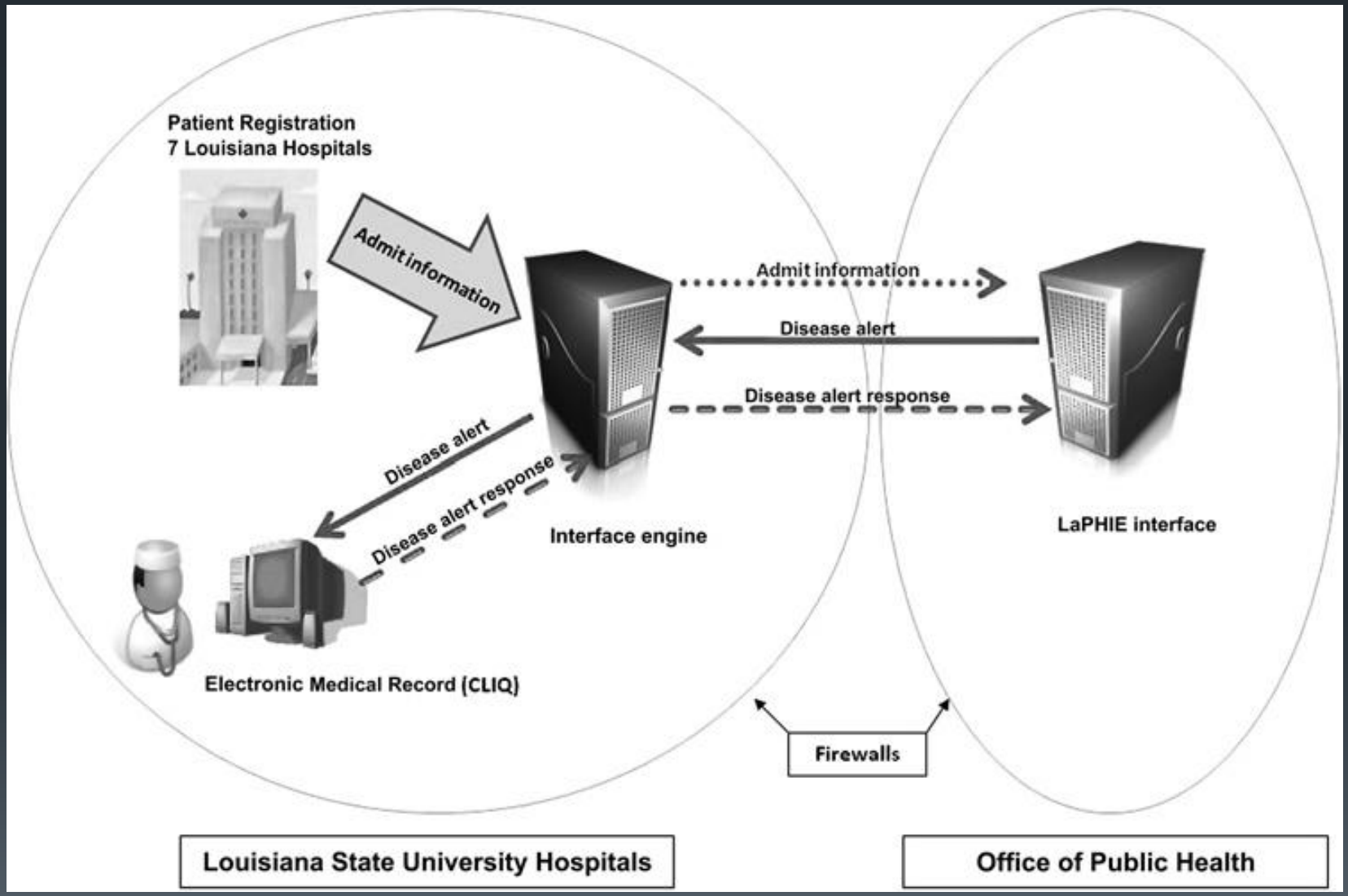


Giodano, at al. CID, 2007 Mugavero, et al. CID, 2009

Can health information technology be used to improve retention-in-care for PLWHA?

- The Louisiana Public Health Information Exchange (LaPHIE) demonstrated how HIT can be used to improve engagement-in-care outcomes for PLWHA
- LaPHIE represents a partnership between the Louisiana Office of Public Health (OPH) and the LSU Health Care Services Division (LSUHCSD) hospitals and clinics to identify PLWHA whom have not had CD4 and/or VL monitoring in > 12 months.
- Via bi-directional sharing of data between the OPH and LSUHCSD facilities, LaPHIE was able to send real-time prompts to non-HIV providers seeing PLWHA who had no lab monitoring.
  - The system also employed real time clinical decision support prompts on how to link those patients with care.
  - 82% of those identified by the LaPHIE prompt had follow-up CD4/VL monitoring in the subsequent 18 month study period.

Herwehe, et al. JAMIA, 2012

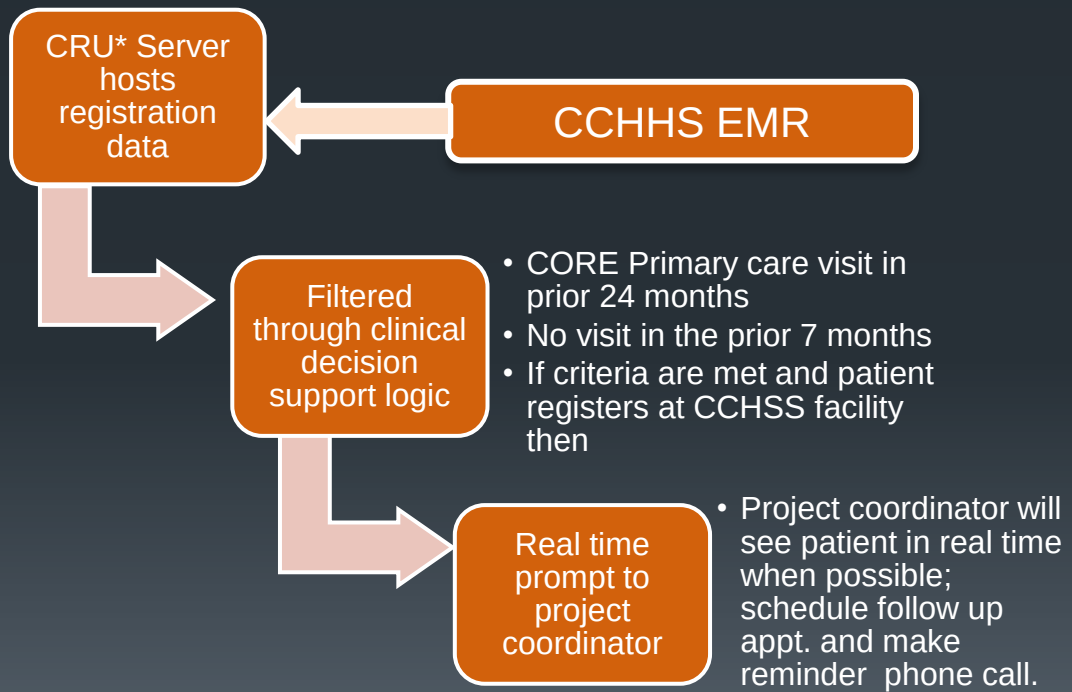

Patient Registration
7 Louisiana Hospitals
Admit information
Admit information
Disease alert
Disease alert response
Disease alert
Disease alert response
Interface engine
LaPHIE interface
Electronic Medical Record (CLIQ)
Firewalls
Louisiana State University Hospitals
Office of Public Health

Cook County Health and Hospitals System (CCHHS)

- CCHHS provides safety-net medical care to approximately 500,000 unique individuals in the Chicago area annually
- Includes 2 acute care hospitals, several urgent care clinics, 16 ambulatory primary care clinics, and hospital-based outpatient specialty care services
- The John H. Stroger, Jr Hospital of Cook County Emergency Department experiences around 150,000 patient visits annually (around 80,000 unique patients)
- The Ruth M. Rothstein CORE Center provides HIV primary care to approximately 5500 PLWHA annually

HIV Tx Cascade supplement – Chicago site – Aim 1

- Develop the data sharing infrastructure within the Cook County Health and Hospital System (CCHHS) that enables real-time identification of non-engaged HIV primary care patients presenting to CCHHS clinical sites.



*CRU = Collaborative Research Unit

HIV Tx Cascade supplement – Chicago site – Aim 2

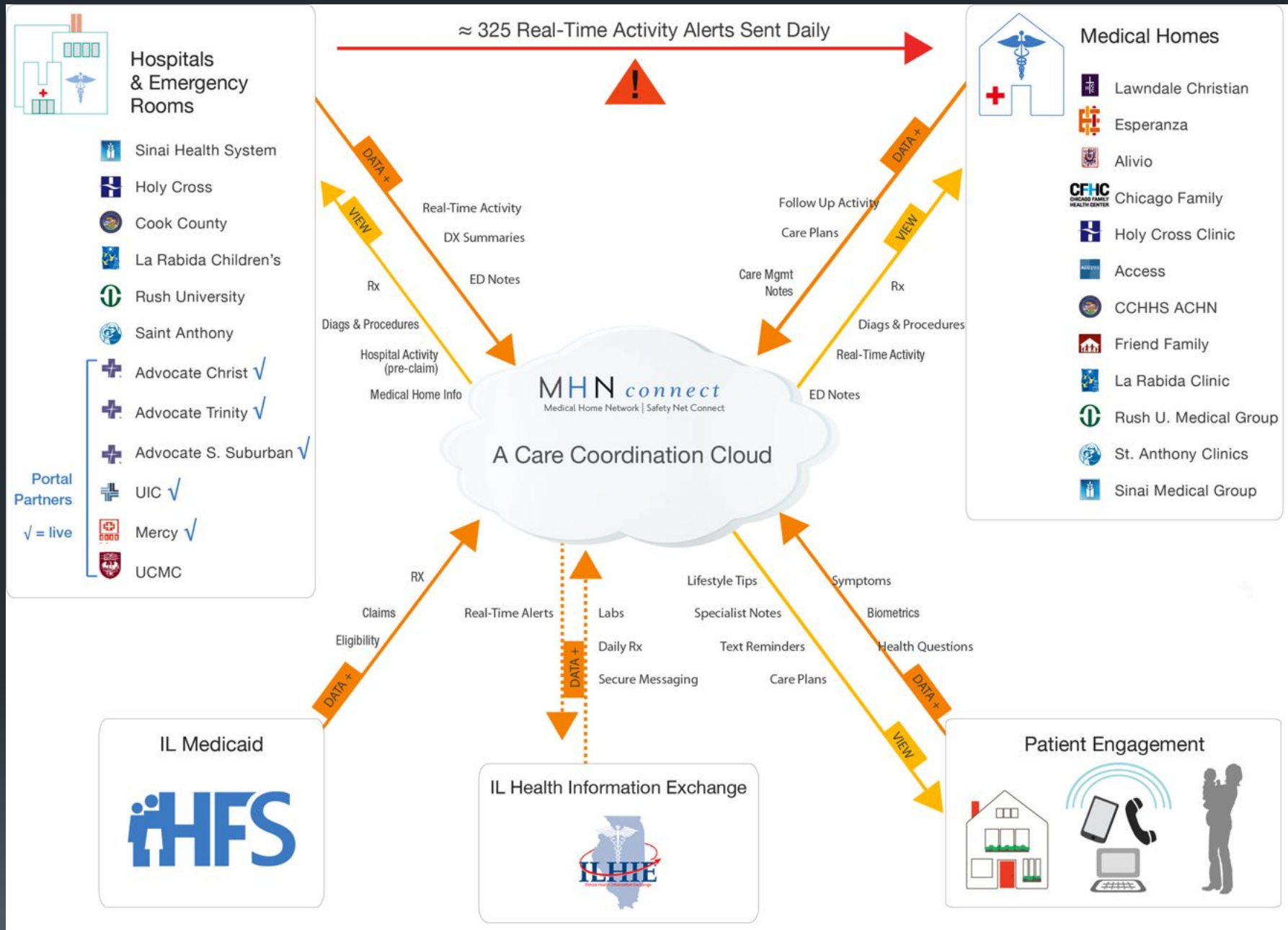
- Assess how real time alerts used to prompt clinical providers at CCHHS Emergency Departments, urgent care and specialty care sites facilitate re-engagement for non-engaged HIV patients and how this EMR-prompt system compares with previous re-engagement strategies which relied on patient navigator-based outreach.
  - Assess number of patients for whom prompt triggers
  - Proportion re-engaged in care within 90 days of prompt-based intervention
  - Compare this approach with several other patient navigator/DIS-based outreach programs
    - Compare numbers of out-of-care patients reached
    - Proportion re-engaged in care
      - Defined as visit within 90 days of prompt trigger vs. outreach effort
    - Assess costs per patient re-engaged with prompt vs. outreach-based interventions

HIV Tx Cascade supplement – Chicago site – Aim 3

- *Exploratory Aim:* Partner with key Chicago area stake-holders to establish data sharing agreements, along with the regulatory, informatics and clinical workflows required for a Health Information Exchange (HIE) to identify, and re-engage out-of-care PLWHA.
  - Goal:
    - Regulatory: How general consent for care needs to change in order to incorporate HIV diagnosis, visit, Rx and lab data in current data sharing efforts in a HIPAA compliant manner.
    - Informatics: Determine technical capabilities and HIT upgrades needed to share data between clinical care entities, cloud, and DOH as required
    - Clinical work flows: How to make use of data sharing
      - Examples:
        - How to use visit data to re-link to medical home
        - How to use Rx data to assess adherence to ARTx

Key aim 2 partners

- Medical Home Network
- Illinois Public Health Information Exchange
- CDPH
- IDPH
- AIDS Foundation of Chicago
- Cook County Health and Hospitals System


≈ 325 Real-Time Activity Alerts Sent Daily
Hospitals & Emergency Rooms
Sinai Health System
Holy Cross
Cook County
La Rabida Children's
Rush University
Saint Anthony
Advocate Christ √
Advocate Trinity √
Advocate S. Suburban √
UIC √
Mercy √
UCMC
Portal Partners
√ = live
Medical Homes
Lawndale Christian
Esperanza
Alivio
Chicago Family
Holy Cross Clinic
Access
CCHHS ACHN
Friend Family
La Rabida Clinic
Rush U. Medical Group
St. Anthony Clinics
Sinai Medical Group
DATA +
VIEW
Real-Time Activity
DX Summaries
ED Notes
Rx
Diags & Procedures
Hospital Activity (pre-claim)
Medical Home Info
Follow Up Activity
Care Plans
Care Mgmt Notes
Rx
Diags & Procedures
Real-Time Activity
ED Notes
MHN connect
Medical Home Network | Safety Net Connect
A Care Coordination Cloud
RX
Claims
Eligibility
Real-Time Alerts
Labs
Daily Rx
Secure Messaging
Lifestyle Tips
Specialist Notes
Text Reminders
Care Plans
Symptoms
Biometrics
Health Questions
IL Medicaid
HFS
IL Health Information Exchange
ILHIE
Patient Engagement