Moving Healthcare into the 21st Century

enhancing quality using information technology in patient care

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Alliance Overview

- Network of 4 Health Centers located on the Near North Side of Chicago
- Founded based upon long standing history of collaboration and close relationship among Medical Directors
- Health Centers target Latino, African American, Gay and Lesbian, and Immigrant and Homeless populations
- Services encompass comprehensive Primary Care, Dental, Mental Health and Social Services, Health Education, and Research
Map of Sites
Mission

○ The mission of the Alliance of Chicago Community Health Services is to share resources and integrate services in order to more efficiently and effectively deliver accessible quality health care to the communities we serve.
EQUIP project goals

1. Implement EHRS in a network of Community Health Centers in a manner that ensures consistency and accuracy of health information across all practitioners, sites and populations.

2. Develop a data warehouse that will monitor, aggregate, and provide data to be used for clinical and system quality improvement.

3. Utilize the EHRS/data warehouse to facilitate and encourage the use of evidence-based practice measures at the point of care.
EQUIP project goals

4. Utilize the EHRS/data warehouse to facilitate continuous improvement of health care quality and safety and develop its function as a patient registry.

5. Promote and support the realization of the full potential of EHRS use in ambulatory care settings, particularly among safety net providers, to improve health care quality and safety.
EQUIP Partnership

- American Medical Association
- Health Information Management Systems Society
- GE Healthcare Clinical Data Services
- First Consulting Group
- Health Research and Education Trust

Funders:
- HRSA
- AHRQ
- Chicago Community Trust
- Illinois Department of Public Health
- Commonwealth Fund
- Robert Wood Johnson
- Michael Reese Health Trust
- Chicago Department of Public Health
Challenges encountered with IT

- Budget for operations exceeded available resources – majority of functions outsourced
- Inability to meet deadlines on IT related tasks
- Network operations affected by challenges within individual health centers
- Conflicting consultant recommendations
  - Redundancy
  - Security
  - Equipment – network and end user
  - Bandwidth
Challenges encountered with IT

- No one managing contracted services
- Lack of leadership/direction for IT committee
The call for help

- IT summit with participation from HIMSS volunteers
- Experts in project management, hosting, communications/security
- Set of recommendations covering people, process and technology
Staffing before …

Applications Software Director
Data Specialist
Nurse Informaticist
...... and after

Chief Technical Officer
Senior Systems Engineer
Data Specialist
Nurse Informaticist
Process and technology before...

- Single Machine Access
- Not Integrated
- Multiple Databases
- Single Load
- Information was Not Networked/Shared
- Demographics not standardized or centralized
and after...

- Centralized Enterprise Database
- Intranet / Internet Accessible
- Full Security Implementation (HIPAA Compliant)
- From Disparate to One Front End from anywhere
- PMS used as the single point of entry for demographics
- To Access Netscreen Firewall, logon from any server on 192.168.100.0 network to http://192.168.100.1:4000
  Username:Password (admin:alliance1440)
- To Access Netopia DSL modem, logon from any computer to http://69.211.232.126:8080
  Username:Password (admin:alliance1440)
- ACCHSDEV.com and all local administrator account administrator password has been changed to alliance1440
ACCHS Enterprise Draft

Warning Conventions:
- ACCHS Series = DMZ Servers
- ACCHS2 Series = SQL Servers
- ACCHS3 Series = Application Servers
- ACCHS4 Series = AOC Domain Controllers
- ACCHS5 Series = AD DC
- AOCAP Series = Citrix Data Collectors
- AOCAPX Series = Citrix Provider

Red - devices are single points of failure (at least one center will not be able to get the EHR).
Yellow - devices will cause the system to be impaired. At least one center will have reduced performance.
Green - devices may impair the Alliances ability to provide maintenance or reporting but will not prevent access to the EHR.
Orange - Devices placed temporarily

Black - Devices that are desired but need to be acquired.

6xCitrix, 1xStaging, 2xUtil Svrs, 2x3560, 2xASA firewalls, 2xCSS (11501)
Contracted services brought in house

- IT Project management
- Infrastructure build
- Citrix Implementation
- Capacity Planning / Monitoring
- Backup / Recovery
- Security Management
Summary

- Securing the right IT expertise is a challenge in EHRS design and implementation particularly in safety net
- IT infrastructure design must balance goals and resources - there is no “one right answer”
- “Disinterested” technical advice is of great value
- Strategies which allow multiple users to share precious resources should be encouraged
- Development of in house expertise decreases dependency on external resources and promotes sustainability
- Networks allow individual entities to access more sophisticated resources and take advantage of economies of scale.