

Integrating Electronic Health Records with Reporting Systems Margaret Haffey, LCSW & Catharine Calianos, MPH

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# **Learning Objectives**

By the end of this presentation, you should be able to:

- 1. Evaluate implementation plans for an interface between an EHR and the HRSA reporting system (CAREWare)
- 2. Highlight strengths, challenges and lessons learned from the implementation process
- 3. Outline benefits and ongoing efforts to improve care in our clinics



### **BMC WICY Program Overview**

WICY: Women, Infants, Children, Youth

Started treating infants born with HIV in late 1980's

Adult HIV Program serves 1,800+ clients annually

- 675+ women in 2017

Pediatric Program serves over 69 HIV+ children and youth

- 45 clients ages 13-24, of whom 27 between ages 18-24
- Pregnant women and exposed infant pairs, 25-30 per year



# Need to Strengthen Management Information System

Weak feedback infrastructure limits data query, analysis, CQM

Capturing data in EHR, but not able to give program or provider feedback with regard to program success or shortcomings

Change of electronic health record (EHR) system

EHR not designed to create reports related to HIV care continuum

Reporting requirement creates high demands on staff time with need for manual inputting data to CAREWare



# **Existing Data Challenges**

"Simple" data extraction from EMR system not so straightforward

Pediatric HIV Program under umbrella of Division of Pediatric Infectious Diseases.

- Can not define population solely on:
  - Age
  - Diagnosis (exposed infants included in RSR)
  - Geographic area
  - Income eligibility



# **Goals for Integrated Data**

Goal: Strengthen our management information system and clinical quality management infrastructure by creating seamless interface between BMC's EHR and HRSA's CAREWare

HRSA supplemental funding

Infrastructure Development - another activity can be the purchase of software to interface CAREWare with existing electronic health records to specifically improve data collection, reporting, quality improvement activities and/or improvement in the gaps in the HIV care continuum.



## **IT Collaboration**

Identify IT collaborators

- Multiple partners in IT
- Higher up as multiple plans arise
- Permissions
- Programmer with medical knowledge
  - i.e. track pap smear and colposcopy, not colonoscopy
  - i.e. urinalysis want to pull in red and white blood cell count
  - i.e. HBsAb versus HBsAg





#### **Workbench Reports**

Pediatric HIV Registry

Adult HIV Registry

Others, including colorectal cancer screen reports, point of care HgbAIC tests

#### **Clarity Reports**

Last four viral load reports

Last four CD4 reports, last four pap smear dates



### **EHR to CAREWare Interface**

PDI verus HL7

What it means for your IT group, IT investment

Understanding data fields, location in medical record

i.e. IGRA verus quantiferon gold

See March 23, 2016 "Epic and CAREWare Integration" webinar from UVA and Portland TGA on Target Center website

Communication between providers and IT to ensure accurate reports Identify all the points Someone available to review points with IT



### Implementation

Make use of available technology to facilitate implementation

Box.com to share reports securely

GoToMeeting to share desktop, teaching tool





### **Real Time Data**

Report and/or assess program goals more efficiently and effectively

- Track referrals
- Follow up on labs
- Follow up on immunizations





More efficient staff time to clean data – now <2 hours per month Data available within month

Internal reporting

Program Income – generate list of Ryan White clients during timeframe QI report to hospital, Team meeting with VL line item lists

**External reporting** 

Progress reports for HRSA, ECHO Collaborative Disparity Reports, RSR





Medical Case Management flowsheets

More efficiently track encounters and client eligibility

Monthly team review of last four viral load levels

Multidisciplinary team meeting of one client outside of pre-clinic conference



## **Lessons and Challenges**

Identify IT partners and resources

PDM versus HL7

Use technology to enhance virtual meetings

Budget for ongoing IT support

Staff turnover, assignment to different projects Medications list



# Thank you



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