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Overview of CMS Final Rule on EHR Adoption
Presentation Handout

American Recovery and Reinvestment Act (ARRA) (Pub. L. 111-5)
• Enacted February 17, 2009
• Modernize nation’s infrastructure
• Enhance energy independence
• Expand educational opportunities
• Provide tax relief, and
• Preserve and improve affordable health care

Title IV of Division B of ARRA
• Amends Titles XVIII and XIX of the Social Security Act
• Established incentive payments to eligible professionals (EPs) to promote
• Adoption and Meaningful Use of Interoperable health information technology

Together with Title XIII of Division A of ARRA
• Health Information Technology for Economic and Clinical Health or the HITECH Act

CMS Final Rule Initial Release on July 13, 2010
• Federal Register July 28, 2010

ONC also published a related Rule
• Health Information Technology: Initial Set of Standards, Implementation Specifications, and Certification Criteria for Electronic Health Record Technology
• Governs the Establishment of Certification Programs for Health Information Technology
• http://www.nachc.com/meaningfuluseofhit.cfm

HHS Ultimate Goal
• Reform the health care system
• Improve: Health care quality, Efficiency, Patient Safety

Requirements for “Meaningful Use”
• Demonstrates Meaningful Use of Certified EHR technology in a meaningful manner
• E.g. electronic prescribing
• The certified technology is connected in a manner that provides for electronic exchange of health information to improve quality care
• In using the certified EHR technology provider submits to the Secretary information on clinical Quality Measures
• Other measures selected by the Secretary
• For Medicaid EPs to the States staged approach
Stage 1 Focus
  • Capture information in a structured format
  • Using the information to track key clinical conditions
  • Communicating the information for Care Coordination Purposes
  • Implementing Clinical Decision Support Tools to facilitate Disease and Medication Management
  • Use EHRs to Engage Patients and Families
  • Reporting Clinical Quality Measures and Public Health Reporting States
  • Focuses on functionalities that will allow for continuous Quality Improvement and ease of information exchange

Definitions of “Qualified EHR Technology”
  • A Qualified EHR must be applicable to the type of practice e.g. ambulatory EHR for office based physicians
  • An electronic record of health information on an individual that includes:
    ➢ Patient demographics
    ➢ Clinical health Information
      ➢ Medical History
      ➢ Problem lists
  • Has capacity to provide clinical decision support
    ➢ Support physician order entry
    ➢ Capture and query information relevant to health care quality
    ➢ Exchange electronic health information
    ➢ Integrate such information from other sources

Three Stages of “Meaningful Use”
Stage 1 Focus
  • Capture information in a structured format
  • Using the information to track key clinical conditions
  • Communicating the information for Care Coordination Purposes
  • Implementing Clinical Decision Support Tools to facilitate Disease and Medication Management
  • Use EHRs to Engage Patients and Families
  • Reporting Clinical Quality Measures and Public Health Reporting State

Eligible Professionals (EPs) in Behavioral Health Organizations
  • Psychiatrists and other physicians in your organization
    ➢ Eligible for Medicaid or Medicare Incentives
  • Nurse Practitioners
    ➢ Eligible for Medicaid

Incentive Payments
Payments to Medicaid EPs:
  • Maximum of 85% of $75,000 over 6 years
  • 85% of $25,000 1st year ($21,250)
  • Adopting, Implementing or Upgrading
  • 85% of $10,000 years 2 - 6 ($8,500)
  • Demonstrating “Meaningful Use”
  • Total $63,750
  • Must begin receiving incentive payments no later than CY 2016
<table>
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<tr>
<th>Calendar Year</th>
<th>Medicaid EPs who begin adoption in</th>
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<tr>
<td>2011</td>
<td>$21,250</td>
</tr>
<tr>
<td>2012</td>
<td>$8,500</td>
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<td>2013</td>
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<td>2014</td>
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<td>2017</td>
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<td>2018</td>
<td>$8,500</td>
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<tr>
<td>2019</td>
<td>$8,500</td>
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<tr>
<td>2020</td>
<td>$8,500</td>
</tr>
<tr>
<td>2021</td>
<td>$8,500</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$63,750</td>
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<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Medicare EPs who begin adoption in</th>
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</thead>
<tbody>
<tr>
<td>2011</td>
<td>$18,000</td>
</tr>
<tr>
<td>2012</td>
<td>$12,000</td>
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<tr>
<td>2013</td>
<td>$8,000</td>
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<tr>
<td>2014</td>
<td>$4,000</td>
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<tr>
<td>2015</td>
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<td>2016</td>
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<td>2019</td>
<td>$4,000</td>
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<tr>
<td>2020</td>
<td>$4,000</td>
</tr>
<tr>
<td>2021</td>
<td>$4,000</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$44,000</td>
</tr>
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</table>
Definitions of Adopting, Implementing or Upgrading EHR Technology

- “Adopted” = Having Acquired, Purchased or Secured
- “Implemented” = Install or Commenced utilization
- “Upgraded” = Expanded the available functionality

Implementing and Upgrading includes

- Staffing, Maintenance & Training
- Upgrading from an existing system to one that is “Certified”

States must establish a verification process

- Submission of a vendor contract is recommended by CMS as one means of verification

Functional Measures—Objectives for the Core Set of Functional Measures

- Use CPOE (any licensed healthcare professional per state guidelines)
- Implement drug to drug and drug allergy interaction checks
- E-Prescribing (EP only)
- Record demographics
- Maintain an up-to-date problem list
- Maintain active medication list
- Maintain active medication allergy list
- Record and chart changes in vital signs
- Record smoking status
- Implement one clinical decision support rule
- Report CQM as specified by the Secretary
- Electronically exchange key clinical information
- Provide patients with an electronic copy of their health information
- Provide patients with an electronic copy of their discharge instructions (Eligible Hospital/CAH Only)
- Provide clinical summaries for patients for each office visit (EP Only)
- Protect electronic health information created or maintained by certified EHRs
- Must choose one of the population & public health measures

CORE SET

<table>
<thead>
<tr>
<th>Stage 1 Objectives</th>
<th>Stage 1 Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Outcomes</td>
<td></td>
</tr>
<tr>
<td>Policy Priority</td>
<td></td>
</tr>
<tr>
<td>Eligible Professionals</td>
<td></td>
</tr>
<tr>
<td>Improve care</td>
<td>Performed at least one test of certified EHR technology's capacity to electronically exchange key clinical information From EHR to EHR or through an HIE pg.186. Must be different legal entities with distinct EHRs pg. 191</td>
</tr>
<tr>
<td>coordination</td>
<td></td>
</tr>
<tr>
<td>Ensure adequate</td>
<td>Conduct or review a security risk analysis per 45 CFR 164.308 (a)(1) and implement security updates as necessary and correct identified security deficiencies as part of its risk management process</td>
</tr>
<tr>
<td>privacy and security protections for personal health information</td>
<td></td>
</tr>
</tbody>
</table>

<p>| Protect electronic health information created or maintained by the certified EHR technology through the implementation of appropriate technical capabilities | Requires Only a Yes/No Attestation |
| Requires Only a Yes/No Attestation | |
| Requires Only a Yes/No Attestation | |
| Requires Only a Yes/No Attestation | |</p>
<table>
<thead>
<tr>
<th>Health Outcomes Policy Priority</th>
<th>Eligible Professionals</th>
<th>Stage 1 Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving quality, safety, efficiency, and reducing health disparities</td>
<td>Implement drug formulary checks Requires only a Yes/No Attestation</td>
<td>The EP/eligible hospital/CAH has enabled this functionality and has access to at least one internal or external drug formulary for the entire EHR reporting period</td>
</tr>
<tr>
<td></td>
<td>Incorporate clinical lab test results into certified EHR technology as structured data</td>
<td>More than 40% of all clinical lab tests results ordered by the EP …during the EHR reporting period whose results are either in a positive/negative or numerical format are incorporated in certified EHR technology as structured data</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Health Outcomes Policy Priority</th>
<th>Eligible Professionals</th>
<th>Stage 1 Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving quality, safety, efficiency, and reducing health disparities</td>
<td>Generate lists of patients by specific conditions to use for quality improvement, reduction of disparities, research or outreach Requires only a Yes/No Attestation</td>
<td>Generate at least one report listing patients of the EP, eligible hospital or CAH with a specific condition</td>
</tr>
<tr>
<td></td>
<td>Send reminders to patients per patient preference for preventive/follow up care</td>
<td>More than 20% of all unique patients 65 years or older or 5 years old or younger were sent an appropriate reminder during the EHR reporting period</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Health Outcomes Policy Priority</th>
<th>Eligible Professionals</th>
<th>Stage 1 Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engage patients and families in their health care</td>
<td>Provide patients with timely electronic access to their health information (including lab results, problem list, medication lists, medication allergies) within four business days of the information being available to the EP Within 4 business days pg. 171 &amp; 172 PHR, portal, web site, secure email, USB, CD or paper pg. 179</td>
<td>More than 10% of all unique patients seen the EP are provided timely (available to the patient within four business days of being updated in the certified EHR technology) electronic access to their health information subject to the EP’s discretion to withhold certain information</td>
</tr>
<tr>
<td></td>
<td>Use certified EHR technology to identify patient-specific education resources and provide those resources to the patient if appropriate</td>
<td>More than 10% of all unique patients seen by the EP…are provided patient-specific education resources</td>
</tr>
</tbody>
</table>
## Reporting on Clinical Quality Measures

- States must identify how they will accept Quality Measures in their HIT Plan
- Directly or via Attestation
- Describe how they will inform EPs of their timeframe to accept submission of Quality Measures

### Quality Measures can be:
- Process
- Experience
• Outcomes of Patient Care
• Observations or Treatment that relate to other quality aims
• Effective
• Safe
• Efficient
• Patient-Centered
• Equitable and
• Timely Care
• CMS will seek to align Quality Measures in future rulemaking

**Core Measures Required for Reporting Table 7 pg. 287**

<table>
<thead>
<tr>
<th>NQF Measure Number</th>
<th>Clinical Quality Measure Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>NQF 0013</td>
<td>Title: Hypertension: Blood Pressure Measurement</td>
</tr>
<tr>
<td>NQF 0028</td>
<td>Title: Preventive Care and Screening Measure Pair: a. Tobacco Use Assessment b. Tobacco Cessation Intervention</td>
</tr>
<tr>
<td>NQF 0421 PQRI 128</td>
<td>Title: Adult Weight Screening and Follow-up</td>
</tr>
<tr>
<td>NQF 0024</td>
<td>Title: Weight Assessment and Counseling for Children and Adolescents</td>
</tr>
<tr>
<td>NQF 0041 PQRI 110</td>
<td>Title: Preventive Care and Screening: Influenza Immunization for Patients ≥ 50 Years Old</td>
</tr>
<tr>
<td>NQF 0038</td>
<td>Title: Childhood Immunization Status</td>
</tr>
</tbody>
</table>

**Quality Measures**
- EPs must report on 6 total Quality Measures
- 3 from previous slide (Table 7), or
- The Alternates from previous slide if the first 3 are 0, and
- 3 from the list of 38
- States will determine how attestation will be administered in each state

**Information Required from EPs**
- EPs must provide
- Name of EP
- National Provider Number (NPI)
- Business Address and phone number
- Practice address - cannot be a PO Box
- Taxpayer Identification Number (TIN) to which EPs incentive payment should be made
- Notify CMS if the EP is choosing the Medicaid or Medicare incentive program
- EPs allowed to make a one-time switch from one program to the other
- A medical secretary can register on their behalf
- EPs are permitted to reassign their incentive payments to their employer or to an entity with which they have a contractual arrangement (including part 424, subpart F)
- Must be consistent with §495.10 with Defined in clause (A) of section 1842(b)(6) of the Act and in accordance with regulations at 42 CFR 424.73 and 42 CFR 424.80

Why is “Meaningful Use” so Important?

Federal Health IT Strategic Plan 2011 – 2015
- HHS Goals
  - Improve Care,
  - Improve Population Health, and
  - Reduce Health Care Costs through the Use of Health IT
- Four Objectives for those goals
  1. Support more sophisticated uses of EHRs and other health IT to improve health system performance
  2. Better manage care, efficiency, and population health through EHR-generated reporting measures
  3. Demonstrate health IT-enabled reform of payment structures, clinical practices, and population health management
  4. Support new approaches to the use of health IT in research, public and population health, and national health security

Federal Health IT Strategic Map
Behavioral Health Providers will be included!!

- ONC Strategic Plan
- Objective A
- Strategy I.A.7: Align federal programs and services with the adoption and meaningful use of certified EHR technology

Specifically, the Substance Abuse and Mental Health Services Administration (SAMHSA) is working to foster adoption and implementation of certified EHRs among its providers that are ineligible for the Medicare and Medicaid EHR Incentive Programs, including community mental health centers and substance use disorder treatment programs…

RESOURCES: For more information and to download a Meaningful Use Gap Analysis Tool

Visit the CIHS HIT web site at
http://www.thenationalcouncil.org/cs/resources_services/resource_center_for_healthcare_collaboration/operations/hit

To find certified health information technologies go to the “ONC Certified Health Product List”
http://onc-chpl.force.com/ehrcert

To find the State Designated Entity (SDE) for HIE
Practice Management Systems vs. EHR
Presentation Handout

Session Description
This presentation will cover the basics of what constitutes a PMS and EHR system, and will provide practical advice on how to identify, evaluate and choose suitable PMS & EHR systems. It will include lessons learned by the presenters, who between them have produced, chosen and successfully implemented such systems in Federally Qualified Health Center (FQHC) and other safety net environments.

Today's Agenda
1. Practice Management System Basics
2. Electronic Health Record System Basics
3. Implementation Considerations
4. The Process of Choosing a System

Section 1: Practice Management System Basics

What is a Practice Management System (PMS)?
- PMS is a category of software that deals with the day-to-day operations of a medical practice.
- Generally, a PMS consists of several functions or modules, integrated into a single system.

PMS Components
- Appointment scheduling—a calendaring or scheduling component that allows staff to create and track upcoming patients visits.
- Patient Demographics—Captures basic patient data, as well as insurance and other information required to process and bill for visits, as well as to produce management reports.
- Charge, Payment and Adjustment entry—allows tracking and billing of patient visits, as well as keeping account balances correctly.
- Accounts Receivable Management—Utilizes demographic and billing data to manage patient and 3rd party balances
- Electronic Claims Processing—Allows submission of billings without production of paper bills

Important additional features
- Sliding Fee Scale calculation
- Insurance eligibility verification
- Credit card transaction processing & posting
- Managed care contract posting and reporting
- Relative Value Unit (RVU) utilization and reporting
- Interface with claims payors

How does a PMS fit together with other Health Information Technology (HIT) systems?
- Foundational- must have a solid system to ensure smooth front line operations and revenue cycle management to fund operations and expansion into other areas.
• HL7- should be able to connect or interface to other systems without excessive reprogramming.
• Consider all systems you might want to use currently or in the future—accounting, eligibility, credit card processing, clearinghouses, Electronic Health Record (EHR) etc.

**Should we choose a PMS first, and then an Electronic Health Record (EHR)?**
• If a new start – doing both at the same time, with the right team and support mechanisms, is best.
• For existing project, how adequate is the current system? What is the business driver for change?
• Dependent upon funding availability – grant for software? Cash from Operations?

---

**Section 2: Electronic Health Record System Basics**

**Definitions: EMR vs EHR**
- An EMR (Electronic Medical Record) is defined as: “An electronic record of health-related information on an individual that can be created, gathered, managed, and consulted by authorized clinicians and staff within one health care organization.”
- An EHR (Electronic Health Record) is defined as: “An electronic record of health-related information on an individual that conforms to nationally recognized interoperability standards and that can be created, managed, and consulted by authorized clinicians and staff across more than one health care organization.”

*Office of the National Coordinator for Health Information Technology

**Definitions: EHRs- Industry standard abbreviation for: Electronic Health Record system**

**What is an Electronic Health Record System (EHRs)?**
A comprehensive and robust system that not only supports the collection of data and documentation of patient care information, but also allows for flexible reporting and aids in decision support for the provider.

In addition, the system includes:
- Complete patient visit documentation: nurse triage, histories, review of systems, progress notes, orders, printed or electronic prescriptions
- Real-time drug/allergy interaction
- The capture and reporting of discrete patient data
- Ability to interface labs, hospitals, other community providers
- Tools/triggers to aid in decision support and adherence to evidence based medicine
- Ability to scan paper documents and “file” into the chart

**What trends are pushing the adoption of electronic health records?**
- In the not so distant past, practice management systems were the center of the universe. Today, EHRs are the center of the universe
- The market is clamoring for clinical data and it is survival of the fittest for systems to deliver the data.
- Pay for performance, HRSA, CMS all putting pressure on providers and health systems to focus on health outcomes.
  • CMS EHR Adoption Incentive Program - “Meaningful Use” objectives and clinical quality measures
• Patient Centered Medical Home initiatives
• Enhanced reimbursement for demonstrated improvement in outcomes *(Pay for Performance)*

**Other drivers for electronic health records**
1. **Reduction of medical errors:**
   • Real-time drug/allergy interactions
   • “In-your-face” evidence based medicine triggers/reminders
2. **Records more legible:**
   • Reduces medical risks
   • Improves staff efficiency in trying to read notes
3. **Medical records staff efficiency:**
   • No more lost records!
   • No pulling a chart when the pharmacy or a patient calls
   • No more sticky notes
   • Routing charts between multiple locations eliminated
4. **Security and Privacy:**
   • Security prevents unauthorized access
   • Audit trails provide details on who accessed what and when
   • Ability to back up data – prevents loss of records
   • Time and data stamping to prevent accidental or deliberate misdating
5. **Reduce lab and radiology order time/tracking:**
   • Easily see labs ordered and results
   • No more lost results (with a functional interface)
6. **Other Efficiencies:**
   • Provider chart review readily accommodated
   • QA staff time for chart pulls reduced, over time, as electronic reports produce metrics from discrete data
   • Long term savings in record retention costs

**Definitions:**  **ROI**= “Return on Investment”

**Tangible Costs vs. Intangible Costs**
• Factoring in acquisition and implementation costs
• Personnel savings and resource shifts
• Defining recurring costs
• Quality improvement and market readiness – intangibles to factor in
• Data allows organization to measure productivity / outcomes and realign resources to meet strategic goals

**Tangible Information Management Needs in a Practice**
In one internal medicine practice’s experience, a wide variety of tasks all have information needs

**Typical Physician Day**
• 18.1 office visits
• 12.1 prescriptions to be refilled
• 31.5 lab/imaging reports to review
• 23.7 phone calls to be processed
Typical information needs

- 18.1 office visits/day with patient in room with chart
- 67.3 additional tasks per day where information is necessary for patient care outside office visits

Sample EHR Return on Investment: Information management in a paper world

- Estimated staff hourly rate (with benefits) = $24
- Staff per Provider = 3
- Hours saved per staff per day = 1*
- Number of compensation days = 260
- Total Annual Savings Possible = $18,720

*Conservative estimate – savings derived from staff not having to pull charts for visits or re-file, look for lost charts, inter-office patient-related communications, quality review efforts, and more. Savings only achieved if staff hours re-allocated to other tasks.

Just a Few Other Return on Investment Metrics to Evaluate

Tangible (personnel)-

- Chart pulls: Visits, QA, Billing
- Calls to / from pharmacies
- Tracking / case management logs
- Chart Routing (multiple locations)
- Referrals to other providers / specialists
- Filing

Intangible:

- Improved Patient Safety
- Legibility
- Improved Information
- Compliance
- Provider Recruitment

Non-personnel costs:

- Paper
- Chart Space
- Transcription
- Chart Supplies

Time study sample: Thomas E. Langley Medical Center:

- Time to locate, pull, and route a chart in their “paper” environment is 2.5 minutes
- Given the center’s average number of charts pulled per day (365), 15.25 staff hours are spent per day in the paper chart environment in this task alone
- When charts are misfiled, the time study record jumped to 45 minutes (.75 hour) on average
- Workflow benefits under electronic records for chart pulls alone should recoup the cost of staff resources equaling two full time equivalents (FTE) over the course of a year

Section 3: Implementation Considerations

Should we implement multiple systems at once?
• Easier done at a new project where patient volumes are low.
• Depends on how much organization can afford to spend.
• If organization is already operational with large volumes, we don’t recommend implementing both at the same time as the impact on the organization will be enormous.

Must we get all of our systems from the same vendor?

Potential pros?
• Single point of contact
• Cross over accountability
• Systems should “play nicely” together
• Funding sources should be considered

Potential cons:
• May be weaknesses in one functional area
• If vendor has problems, both sides of the house can be adversely affected

Marrying best of breed – 2 Vendors

Potential pros:
• Quality products for both areas
• Quality support

Potential cons:
• Interface issues in making systems work together
• “Finger pointing” between vendors
• Additional costs in developing and testing interfaces between products

Should we do it alone, or partner with a network?

Pros of doing it alone:
• Your organization is the sole decision-maker
• Needs of the individual organization / practice always come first

Cons of doing it alone:
• All infrastructure costs (production server, redundancy, data lines) borne alone
• Required depth of staffing and diversity of skillsets borne alone
• No benefit of other expertise and collaboration
• Costs of implementation (project management, training, go-live support) borne alone

Pros of the network model:
• Pooled financial resources enable the hiring of high quality staff
• Working together enables the hiring of “depth”
• Two heads are better than one – typically, setup and implementation higher quality and more successful
• Cost sharing will allow for server redundancy, disaster recovery and other more robust solutions

Cons of the network model:
• Collaboration takes time and effort
• Lots of communication is needed between partners
• Working together requires compromises be made between partners

Approaches to EHR deployment:
• Baby Step” Approach:
  – By Module(s)
  – By Locations
  – By Departments
  – By Provider
• “Big Bang” Approach

Baby Steps vs. the Big Bang Approach

Baby Step Pros:
• Return on Investment comes more quickly
• Growing champions is easier
• Implementation and support can be built slowly
• Productivity levels return more quickly

Baby Step Cons:
• Patience required as all functionality not available initially

Big Bang Pros:
• A more complete, comprehensive system is deployed to providers
• More time available for configuration and testing
• Comprehensive change management strategy employed

Big Bang Cons:
• More functionality at Go-Live may impact productivity levels for a longer period of time
• Large staffing infrastructure needed to support on day one
• Larger investment required up-front

Section 4: The Process of Choosing a System

What players should be involved in the process of choosing a PMS?

Who should manage the project?
• Experienced project management – poor project management can increase costs
• Business leaders – financial and operations management

Who else should be involved and in what roles?
• Finance – must, in advance, determine reporting needs and evaluate product
• Operations – must, in advance, determine current and future operational, appointment, and patient flow management needs to evaluate product
• Billing – experienced billing personnel familiar with state Medicaid and other practice-specific billing needs

Role of the IT department:
• Support for business departments and functions
• Infrastructure, communications, desktops
What Additional players / modifications are needed IN THE PROCESS when choosing an EHR?

- For an EHR system selection and implementation to be successful, clinical leaders are required – must be clinician driven to be successful! Key:
  - Provider Champion(s)
  - Nursing Champion(s)
  - "Super Users"
- EHR cannot be viewed as an “IT project” – it’s a clinical project that uses technology

Role of the IT department:
- Support for clinical departments and functions
- Infrastructure, communications, desktops

Executive Leadership:
- Cannot just say “go forth and do.”
- Must be part of the on-going reinforcement to ensure that the return on investment occurs.
- Should give encouragement throughout the process as staff meet implementation milestones

Should we bother going through a FORMAL Request for Proposals (RFP) process when selecting a vendor? YES
- “Dog n’ Pony” shows do not ensure quality – just good vendor sales pitches
- RFP response can become part of a contract
- Ensures a more apples-to-apples comparative
- Protects CEO and Board – demonstrates due diligence

How we develop the vendor RFP:
- Requires experience and keen understanding of environment
- Legal input is recommended
- Evaluate the vendor and reputation in addition to the product
- Use HRSA document as a resource for functional requirements baseline
- Review CCHIT BH Guidelines
How should we evaluate the vendors’ responses to the RFP?
- Create a scoring tool – which of the functional requirements are “required” vs. “optional”?
- Use of a scoring tool – weighting the required items
- Document, document, document – questions and answer exchange

The vendor wants to come do a demo-what should we do?
- Allow free form demos first
- Follow up with controlled demos
- Don’t be afraid to make them demo again and again
- Understand that demos can have value, but they are designed solely to make the product look good and weaknesses will not be addressed

Once we choose the product we want, how do we negotiate with the vendor?
- Understand their various licensing models available
- Understand your needs and how they match the licensing model
- Pay the money as deliverables are met, not all up front
- It pays to contract with a competent resource to assist in this process

How do we develop an iron clad contract with the vendor to protect our organization?
- Read the contract thoroughly, understand the various licensing options
- Use a competent attorney experienced in software contracts
- Use a competent resource to advocate for your needs and help with the review process
- Don’t scrimp on expertise here or it will cost you in the long run

Which systems should we look at?
Can any ambulatory Electronic Health Record system work in our environment? No
- Most ambulatory primary care systems do not include robust / comprehensive documentation for Behavioral Health
- Many products are strong in only one niche or another
- Product must be able to support your service offerings
- Systems must be customizable:
  - For patient / client visit documentation
  - Custom reporting
  - Case management
Beyond the basics of an EHR, what product / vendor considerations are important?

- Flexibility in form customization
- Ability to meet and continually comply with grant / other federal requirements
- Ability to allocate patients to certain programs, grants, or studies
- Interface capabilities / vendor willingness to work with competition
- Vendor’s client list – you don’t want to be the lowest priority (Also may be risky to be the only priority)
- Reporting, reporting, reporting – data is useless if it can’t be turned into meaningful information

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Alternative to vendor approach: work with an existing network

- Health Center Controlled Networks create solutions partnerships with their members, not just contracts for specific products
- Unlike vendors, the partnership with a network is long-term and relies on evolving needs of its membership, not just market conditions or sales opportunities
- Many different models under the HCCN umbrella: from menu-based to turnkey offerings
- Typically, members are heavily involved in governance, ensuring that your organization has a voice in the strategic plan of the network

Original content developed for SAMHSA by:
Benefits and Economies of Scale When Working with a Network
Presentation Handout

Session description
This presentation will provide an overview of the benefits of HCCNs including discussion of what distinguishes networks from HIT vendors, the benefits of collaborative engagement, the economies of scale related to systems, innovations, and meaningful use, and the ability to engage quality improvement and data sharing. It will include lessons learned by the presenters who actively support Federally Qualified Health Center (FQHC) and other safety net provider practices.

Today’s Agenda
- Health Center Controlled Network (HCCN)
- HCCN vs HIT vendor/product
- Technology implementation and support
- Quality analysis and reporting
- Collaboration around data to achieve economies of scale and efficiencies

Section 1: What is a Health Center Controlled Network (HCCN)?

What is an HCCN?
The Health Center Controlled Network (HCCN) Initiatives support the creation, development, and operation of networks of safety net providers to improve the operational performance and gain financial efficiencies for safety net providers to ensure access to health care for the medically underserved populations through the enhancement of health center operations.

Mission
To improve the operational efficiency in the non-patient-care departments of Federally Qualified Health Centers served by HCCN’s through cooperative interaction of FQHC organizations. These efficiencies are typically focused in functional areas requiring high-cost and/or highly specialized trained personnel (i.e. technology, etc.) or in functional areas where operational mass drives economies of scale (i.e. provider recruitment, billing, etc.).

Shared Governance and Collaboration
Regardless of the maturity level of a network, there are two elements common to all networks: (1) each is majority controlled by health centers (or FQHCs) and (2) there are high levels of collaboration among network members.

History
Health center controlled networks (HCNs) are consortia of Section 330 funded health centers that have banded together to exchange information and establish collaborative mechanisms to meet administrative, IT and clinical quality objectives. Networks have been around for many decades, but their development and stability increased over the last 15 years.
Collaboration
Many networks are heavily engaged in technology and the personal skill set and equipment backbone that it demands either directly in the network or by engaging partners to efficiently make technology available to its safety net providers.

Scalability
Networks are now in the initial phase of interacting together in developing an ever-wider infrastructure of product and expertise sharing among each other to reduce redundancy and enhance the operational efficiency of their collective user base.

Core Area and Functions
- **Administrative**: HR, Purchasing, Corporate Compliance, Medicare/Medicaid Compliance, Program/Services Development, Resource Development, Education, Communication, Governance Structure, Marketing, Strategic Planning, QI – Administrative
- **Clinical**: Services/programs, Health Ed, Clinical Guidelines & DM, Staffing, Documentation, Ancillary Services, CQI/Clinical Systems Improvement, Research
- **Managed Care**: Credentialing, Member Services, UM/UR, Contracting
- **Finance**: Grants Management, Claims Processing, Accounting, Policies and Procedures, External Audit, Staff Education/Training, Billing
- **Information Systems**: Management of IS Department, Data, Communications, Staff Education/Training, Support, Reporting, Infrastructure, Electronic Health Records, Practice Management Systems

HCCNs offer a range of technology and quality improvement services

<table>
<thead>
<tr>
<th>Technology Services:</th>
<th>Quality Improvement Services:</th>
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<tbody>
<tr>
<td>IT Support</td>
<td>Quality Improvement/Process/Effectiveness</td>
</tr>
<tr>
<td>Help Desk</td>
<td>Quality Improvement Consulting</td>
</tr>
<tr>
<td>On-site Support</td>
<td>Quality Management Planning</td>
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<tr>
<td>Consulting and Project Management</td>
<td>Satisfaction Survey Management</td>
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<tr>
<td>User Group Facilitation</td>
<td>Data Management and Reporting Support</td>
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<tr>
<td>Application Support</td>
<td>Training</td>
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<td>Implementation Services</td>
<td>Training Program Development</td>
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<td>Readiness Assessment</td>
<td>Training Delivery</td>
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<tr>
<td>System Hosting</td>
<td>Managed Care Contracting</td>
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<tr>
<td>Individual Application Hosting</td>
<td>Group Purchasing</td>
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<tr>
<td>Shared Application Hosting</td>
<td>HIE facilitation</td>
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<tr>
<td>Data Warehouse</td>
<td>Grant Assistance</td>
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<tr>
<td>Telemedicine/Video Conference</td>
<td>Pop. Health Improvement Collaboration</td>
</tr>
</tbody>
</table>

HCCNs support the shared use of electronic health records (EHR), practice management systems (PMS) to modernize practice operations and improve care coordination
- Meaningful use of EHR
- UDS and public health reporting
- Public health surveillance
- Interoperability (record continuity)
- Health information exchange (HIE)
- Lab interfaces
• Medical home
• E-prescribing
• Care coordination
• Patient education
• Home health monitoring
• Patient education and access to personal health record
• Computerized order entry
• Video-enabled remote care (TeleHealth)
• Interoperability
• Distance learning
• Document management
• Data consolidation
• Group purchasing

**HCCN distinguishing features**

- HCCNs are not simply vendors of products or services; HCCNs are in the business of helping providers adopt and use health information technology to improve outcomes for patients.
- HCCNs have been helping providers use EHRs meaningfully since before ARRA introduced the concept.
- HCCNs are ideal partners for agencies, institutions, firms and organizations that want to work with safety net organizations and CHCs in particular.
- HCCNs can provide implementation and support services that have been developed specifically for CHCs, and are designed to complement standard offerings of health IT vendors.
- HCCNs are joint-investors and partners in promoting and supporting health centers.
- HCCNs are key economic contributors to their communities, employing providers and investing in developing staff to support skilled and essential roles focused on quality, technology and operations.
- HCCNs have and continue to develop technology assets, experience and access to data that can be used to support clinical and translational research on special populations in the practice setting.

**HCCNs are particularly suited for:**

- Organizations seeking products and services tailored to the safety net without need for extensive individual system customization
- Small or mid-sized organizations without a strong technical or quality improvement infrastructure
- Community clinics or health centers that cannot divert a substantial amount of time from clinical, operational, and technical resources to the EHR implementation
- Those with an interest in working with and learning from other clinics or health centers that have already adopted an EHR system
- Organizations that want to implement highly effective disease management and QI program
- Organizations that believe that they can learn from organizations like themselves
- Academic health science researchers who are seeking to engage safety net providers in practice-based effectiveness research
Section 2: HCCN’s versus Health IT Vendors

Roughly half of all implementations done by a health center working directly through a vendor end in failure or disappointing results

- Health IT software (particularly the EHR) often requires customization beyond the vendor’s offering to support health management functions for particular populations, unique billing requirements, and multiple language patient education tools for the safety net.
- Few community clinics or health centers have access to the in-house clinical, quality improvement, and technical expertise needed to navigate the complexities of health IT adoption and sustained use.
- Vendors are in the business of selling technology products and do not typically provide assistance beyond the software itself, the initial implementation, and basic user training.
- Many vendors understate additional work and fees required to customize a system to fit the needs of a particular practice.
- Most systems require specialized skills to maintain and optimize to the point that providers can use them as efficiently as providers currently can use paper.

HCCNs are intermediaries between health centers and vendors that deliver value by building capacity and setting expectations that recognize the individual needs of health centers to get the technical support and training they need to effectively use their health IT tools.

<table>
<thead>
<tr>
<th>Health Center (client)</th>
<th>HCCN (intermediary)</th>
<th>Health IT Vendor (product)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus on safety net</td>
<td>Collaborative approach</td>
<td>Training/workforce development</td>
</tr>
<tr>
<td>Workflow evaluation and redesign</td>
<td>Economies of scale</td>
<td>Disaster and risk mitigation</td>
</tr>
<tr>
<td>Quality improvement</td>
<td>Population-based services</td>
<td>Long-term partnership</td>
</tr>
</tbody>
</table>

“HCCNs build team skills across safety net providers to focus on those tasks that are most efficient and effective for the benefit of all network participants.” -- March 2008, California HealthCare Foundation, Creating EHR Networks in the Safety Net, Murchinson, Ray, Sison, of Manatt Health Solutions.

*The table below highlights the benefits provided by the networks versus those provided by system vendors.*
Choosing a network that is right for your Health Center involves a number of considerations

- Health Centers should assess their environment and infrastructure to determine the type of network that will be most appropriate. Since networks are at various stages of development, each network will offer different opportunities. Health Centers should consider such variables as geography, services and fees, and overall leadership compatibility.
- Geography may or may not be an important factor in choosing the network that is right for your Health Center.
- There are a number of HCNs that operate similar to application service providers (ASPs) where applications and data services are provided from a remote, central location and can be accessed by health care providers anywhere in the country. However, in order to make the most of the collaboration, it is often useful to be able to meet regularly with other consortia members to exchange best practices and work on defining and developing joint functions and customizations. For example, working with others within your State is important for developing billing templates consistent with State Medicaid requirements. (Short Doyle Requirements in the state of California.)
- Health center networks employ varying approaches to membership and user fees. While some financial outlay is expected from all members, some networks will be better than others in terms of getting the most for dollars invested.
• Health center network services are often a determining factor when choosing a network. Networks offer a range of services which include hosting applications, system implementation and training, project management and technical support functions. Health centers, depending on their existing capabilities, have to consider different options when deciding which network to join.
• Overall leadership compatibility is an important variable to consider when choosing a network. Centralized management is critical to a network’s success. Because a central benefit to working in consortia is being able to benefit from shared leadership, it is important that you make sure that the approach of the network leadership you choose is compatible with your health center’s leadership and board of directors.
• Overall, prior to making any commitment to join or start a network, it is important to assess your own readiness as an institution to engage with others collaboratively. The more you understand regarding what you want to get out of the collaboration, the better able you will be to make the right decision and make the most of the collaboration you join.

Recognizing the value of HCCNs as an intermediary organization, several health IT vendors are partnering with networks and other value-added resellers to assist in customizing their products and promoting within the safety net.
• EPIC Systems, eClinicalWorks, Dentrix and Allscripts have a partnership with OCHIN, Inc. to provide a more tailored product by drawing on OCHIN’s safety net expertise and implementation knowledge.
• Community Health Centers Alliance
• Health Choice Network

Section 3: Technology Implementation and Support

Hardware and technology operations
Successful adoption and use of health IT requires more consideration than simply loading software on to a server:
• Implementation of new health IT, such as the EHR system, alters virtually every process and workflow from patient scheduling to billing, the operation and integration of other technology applications are also affected;
• All clinical care providers rely on the health IT systems making availability and reliability essential to avoid an adverse impact on operations; and,
• Health IT systems require continual support of robust technology infrastructure, a complex environment that demands dedicated personnel familiar with its hardware, software, operating systems, security, backup and recovery, and disaster recovery.

Technology Services

<table>
<thead>
<tr>
<th>IT Support</th>
<th>System Hosting</th>
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<tbody>
<tr>
<td>Help Desk</td>
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<tr>
<td>Implementation Services</td>
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<tr>
<td>Readiness Assessments</td>
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</tbody>
</table>
Consider the Changes to the Support Model
• Once data is available electronically there is an expectation of availability to other appropriate providers. How will your team support that?
  ➢ Patients that are now admitted or treated after hours without a chart can now be serviced with a chart.
  ➢ Integration with other systems like inpatient facilities may be able to report to you when your patients are admitted or treated between your encounters.
  ➢ ACO and Medical Home Reporting – New capitation requirements have additional reporting requirements including significant data integration across a community setting.
• Providers will have access information asynchronously, and may choose to chart from remote locations and during non-working hours.
• Redundancy to the “internet” and software.
• Air conditioning and power considerations.

Section 4: Quality Analysis and Reporting

Quality Analysis – “You can’t improve what you can’t measure”
• HCCNs understand that health IT systems (e.g., EHRs) alone are not sufficient to improve the quality of care provided to patients.
• Health centers need health IT applications that enable necessary data collection, analysis, and reporting as well as support services to interpret and use these data to improve quality of and access to care for the underserved.
• Safety net providers are uniquely positioned to move from patient-specific disease management by taking advantage of HCCN’s data aggregation services, which are essential for advanced analysis and management of patient populations.
  • While the EHR will provide data to inform measurement, additional attention to data cleanliness, aggregation, analysis, and application are necessary to improve quality and access to care.
  • This necessitates more specialized staff and requires integration with other technology platforms and vendor software customizations.
  • Our populations have unique needs and require additional resources when compared with for profit and inpatient care.

Reporting – Automation and enhancement of public health reporting
• Federal public health reports – HCCNs are leveraging EHRs to automate Uniform Data System (UDS) reports. UDS data is critical for the HRSA to note and monitor trends and establish or expand programs and services in order to advance the health of underserved communities.
• State public health reports – HCCNs are working with rural and school-based health centers and migrant farm worker clinics and others to augment the kind, quality, and quantity of data transmitted to state health agencies.
• Immunization reporting – Several HCCNs are completing bi-directional interfaces to state immunization systems to ensure more timely, less duplicative immunization records and forecasting.
• Insurance and Information exchanges – OCHIN recently applied to the Centers for Medicare and Medicaid Services to use its systems to enhance the identification of children and adults eligible for insurance exchanges mandated by the Affordable Care Act.
• **Social Security Administration disability determinations** – OCHIN recently completed work with the SSA to leverage its shared health IT systems to automate the verification of disability claims determinations (reducing the time from 90 days to 48 hours) that will save clinics resources and reduce the time it takes for patients to receive and/or appeal their eligibility.

### Section 5: Collaboration Around Data to Achieve Economies of Scale

Using health IT-enabled data to achieve strategic priorities and economies of scale such as:

- **Meaningful Use of EHR** – adopting and use EHR systems to facilitate workflow designed to improve the quality of patient care and patient safety and control costs.
- **Clinical Decision Support** – using systems to provide clinicians with clinical knowledge to enhance patient care and patient safety.
- **Consumer Health IT Applications** – deploying hardware, software, and web-based applications that allow patients to participate in their own health care via electronic means.
- **Electronic Prescribing** – using health IT systems to enter, modify, review, and output or communicate drug prescriptions.
- **Health Information Exchange** – sharing clinical and administrative data across the boundaries of health care institutions, health data repositories, and states.
- **Telehealth** – delivering health-related services and information via telecommunications technologies in the support of patient care, administrative activities, and health education.

Leveraging data to achieve strategic priorities:

- Most HCCNs strongly believe that collaborative installation, optimization, and use of HIT are the most essential components of success and its broader HCCN mission.
- Where several years ago the main focus of the HCCNs was to support selection and successful implementation of PMS and EHR systems, today the most successful networks are constantly enhancing their ability to leverage health IT and data to support their members’ quality improvement and sustainability.
- Also vital is work to strengthen relationships with other healthcare organizations, researchers, academic health centers, consultants, etc. to develop and deploy coordinated strategies that support the medical home model and achieving Triple Aim Goals (i.e., improving public health, patient experience, and controlling costs).
- The shared goal is to leverage health IT systems to test, prove, and support lasting care delivery reform.

Using health IT-enabled data and information to bolster research in the safety net community:

- With HRSA’s support, HCCNs comprised primarily of FQHCs as well as rural health centers, school-based health centers, free clinics, etc., have achieved notably high rates of EHR adoption among their members.
- Many are already leveraging these systems to generate information that enables them to operate more efficiently, to develop and implement best practices, and to engage clinicians in the routine care of patients.
- The logical next step for HCCNs is to bolster their capacity to be active contributors to studies that include their underserved patients, in partnership with academic and other health research organizations.
HRSA and the Agency for Healthcare Research and Quality are leveraging HCCNs to build capacity to engage comparative effectiveness research through the Community Health Applied Research Network (CHARN) initiative.

**Community Health Applied Research Network (CHARN)**
- Awarded to three major HCCNs in 2010
- CHARN is based on the premise that leveraging HCCN’s use of health IT to support practice-based research will enable safety net clinicians to participate in the design, test, and evaluation of health science research undertakings designed specifically to inform their work; and,
- HCCNs are leading and supporting CHARN with an eye to extrapolating from those lessons ways in which they can improve their shared health IT systems to support enhanced workflow and clinical protocols shown to be most effective in the safety net settings.

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**Section 6: Additional Information**

Find a Health Center Controlled Network: findanetwork.hrsa.gov
Find Your Regional Extension Center Partner Online: HealthIT.hhs.gov – select “HITECH Programs”

Our Foot Print
- HCCN - Member Center CEOs serve as Board of Directors
- 41 member centers in 10 states (FL, HI, KS, MD, MO, NM, RI, TX, UT, WV)
- Approximately 800,000 patients
- Covering Priority Primary Care Providers (PPCP) in Miami-Dade, Broward, Monroe, Martin, Palm Beach, Indian River, Okeechobee, and St. Lucie Counties
- Provider Goal = 2,500
HCN Health Information Technology Services

- **Electronic Health Record**
  - Medical / Dental / Behavioral
  - Custom Provider Templates
  - School Based Dental
  - School Based Medical
  - Document Imagining
  - Voice Recognition
  - CCD

- **Network Administration**
  - Hosting Services
  - Back office / Email Support
  - Disaster Preparedness
  - Infrastructure Design (LAN/WAN)
  - Web Design/Mgmt

- **Implementations and Training**
  - Project/Change Management
  - Training and Staff Development
  - Best Practices Matrix
  - Reimbursement Coordination

- **Support Services**
  - 24hr Service Desk (Hardware/Software)
  - Project Management
  - Vendor Escalation
  - BETA Testing

- **Business Intelligence**
  - Meaningful Use Reporting
  - Clinical Reporting
  - Fiscal Reports (Black Book)
  - Web based Reporting Tools
  - Practice Management Support

Headquartered in Portland, Oregon, OCHIN is a national non-profit collaborative, currently comprised of 42 organizations across seven states representing over 400 clinics and over 2,000 providers. With the ultimate goal of transforming health care in the United States, OCHIN provides integrated HIT software products and a wide variety of services, training and education to community health clinics, mental health services and small practices serving the medically underserved. [www.ochin.org](http://www.ochin.org)

**Who we are**

- 501c(3) Collaborative Health Center Controlled Network
- 51% of Board Members are Community Health Center Executives
- 42 member organizations, over 400 individual clinics & 2000 providers
- 1M patients, 2.140M Practice Management & 1.712M Electronic Health Record annual visits
OCHIN PRODUCTS AND SERVICES

- **Practice Management**
  - Scanning solutions
  - FQHC customizations
  - Special and community Library Reports
  - Flexible build and configuration
  - Automated patient notifications
  - Revenue cycle management

- **Electronic Health Record**
  - Integrated community health record - medical, dental, behavioral health, school-based clinics
  - E-prescribing
  - Decision support tools
  - Case/care management tools
  - Integrated lab interfaces
  - Advanced role based security
  - Voice recognition
  - Reporting and benchmarking tools
  - Document management
  - Continuity of Care Record (CCD)
  - Patient Personal Health Record (PHR)

- **Implementation, Training and Products**
  - Project management
  - Information systems implementation
  - Network design
  - HIT integration & interoperability
  - Billing and revenue cycle management
  - Staff PM/EHR training
✓ Web-based training modules
✓ **Support**
  ✓ Project Management
  ✓ 24/7 service desk
  ✓ Advisory and consulting services
  ✓ Meaningful Use reporting tools
  ✓ Clinical reporting tools
  ✓ Specialty build for grant
  ✓ Vendor escalation

- **Practice Based Research Network**
  ✓ Safety Net clinical research & clinical collaboration opportunities

---

**Community Health Centers ALLIANCE**

“Meaningful” Users of EHR Since 2005

**Core Health Information Technology Offerings**
- Practice Management System *(including Practice Analytics)*
- Electronic Health Records *(240,000+ Patient Records)*
  - ePrescribe
  - Lab Orders / Results
  - Specialty Provider Referrals
  - Quality Reporting
- Electronic Oral Health Records *including Digital Imaging*

**Professional Services**
- Project Management / Implementation Support
  - Leadership and task level monitoring
  - End to end project / system design
  - Workflow / Process Consideration
  - On-site Go-Live Choreography
- Training
  - Modalities matched to provider / end user needs, including classroom, coaching, and web-based tools
  - Competency exams
- Report Writing / Administration
  - Custom QA/QI, Peer Review, and Operations reporting
  - Meaningful Use – Workflows, Provider-level detail, and gap analysis
- EHR Development / Enhancement
  - Clinical Committee directed
  - Interface management to support HIE and other functionality to the provider desktop
- Technical Assistance & Support
  - Help Desk processes more than 7,000 requests annually; fewer than 5% escalated to vendors
  - 24x7 System Availability
- Tier 1 Data Center Partner
  - Server Redundancy
  - Privacy / Security Monitoring & Management
  - 24x7 Server Monitoring / Network Administration

- Service Area Counties: 41
- Provider Goal: 2,026
- Education and Trusted Resource for Latest Information
- Best Practices Dissemination
- System selection assistance
- System implementation support
- Technical assistance
- Privacy and security best practices
- Workflow redesign
- Clinical outcomes reporting / data integrity
- Federal regulations navigation
- “Meaningful Use” education, application, and attainment
- Education and assistance in achieving eligibility for CMS EHR Adoption Incentive Program funding *(Designed to help overcome the financial barrier to EHR adoption)*
Session description
To achieve a successful transition from paper charts to the electronic health record (EHR) requires a commitment from the entire organization, a distinct willingness to change processes and adequate resources. As with any information technology implementation careful consideration must be given to the readiness of an organization for significant workflow and process change. Lack of preparation has been a serious contributor to the unusually high failure rate of EHR adoptions.

This presentation will provide the attributes you will need to achieve a successful EHR implementation with an understanding of the areas for assessment and preparation. You will be exposed to assessment tools easily acquired on the internet, and you will receive a demonstration of an assessment tool being used today by one of the nation's regional extension centers.

Top 10 Reasons for EHR Adoption Failure
1. Lack of alignment with business strategy
2. Weak executive-level sponsorship
3. Underestimating impact on organization
4. No readiness assessment for change
5. Unrealistic expectations
6. Lack of an effective, cross-functional implementation team
7. No definition or measures for progress or success
8. No organized mechanism for communication and feedback
9. Lack of formal training plan
10. Lack of effective physician leadership

*EHR does not meet core provider needs*

Section 1: Readiness

Readiness Attributes- Organizational Alignment
- **Culture**: values; environment for achieving excellence; ability to manage change and maintain flexibility; team approach
- **Organization**: infrastructure to support information flow, decision making, and problem resolution; role of the board and leadership team; vision for quality; ability to collaborate with external organizations
- **Leadership**: the characteristics of leadership team: setting vision, commitment to quality; alignment across organization
- **Strategy**: mission and vision and priorities documented in a strategic plan; internal and external communications

Readiness Attributes- Capacity
A) **Management Capacity**
- **Information Management**: quality, accessibility, relevance and communication of data/information
- **Clinical and Administrative Staff**: staff capacity; staff training and competence; consistent policies and procedures; methods to motivate and drive individuals/groups to achieve goals
• **Accountability**: how results are achieved and mission/vision fulfilled; role and responsibility of patient in care process
• **Finance & Budget**: extent of infrastructure and management of IT budget; capital and operational resources

**B) Operational Capacity**
• **Workflow Process**: tools and methods for managing change, developing policies, procedures, protocols; Quality Improvement model; process for monitoring and communicating performance; analysis and actions taken to improve processes and performance
• **Patient Involvement**: preventative and chronic care processes; patient follow-up and care continuum; comprehensive care
• **Training**: Infrastructure and resources dedicated to initial and on-going IT training

**C) Technical Capacity**
• **IT Management and Support**: IT staff skill-set and capacity for IT management and support; consistent policies and procedures
• **IT Infrastructure**: information systems environment and infrastructure

**Goals of having a solid planning strategy**
• Identify the range of tasks typically performed in an EHR implementation and the steps necessary to prepare for a successful EHR implementation.
• Explain the key components of a successful implementation plan.
• Describe how to engage users in the system build process to achieve EHR goals.
• Identify the key components of a successful system build.
• Explain strategies to minimize go live anxiety, from rehearsal, pre-live, to go-live.
• Understanding the “Best Practices”.
• Issue Management & the escalation process from a HCCN perspective.

**Project Timeline Strategy Example**

**A) Practice Management**

Week 1:  Schedule Kick-off call  
Week 2:  Billing discovery call  
Week 2-6:  Hardware approval, Return IT Inventory checklist  
Week 5-7:  Install check  
Week 9-12:  Application Installation  
Week 10-11:  Attend billing & system setup training  
Week 12-14:  Mock go-live  
Week 15-16:  On-site training & go live

*Does not include a data migration or clinical/financial conversion*

**B) Electronic Health Record (EHR):**

Week 1:  Schedule Kick-off call: Provide milestone dates & intro to implementation process.  
Week 2:  EHR system setup: Setup of the tables & customization of EHR  
Week 2-6:  Lab Interface serialization: Enroll, serialize lab portal services  
Week 5-7:  Patient portal / Secure messaging setup- If applicable for sharing & communicating information with your patient in a secure forum.  
Week 9-12:  Training: Web-training, onsite training, self-paced computer based training (CBT’s)
Week 10-11: Go-Live: Onsite point of care shadowing

Section 2: Assessment

Conducting a Successful Pre-EHR Assessment
- Current practice review:
  • Review & refine practice workflows and identify areas for process improvement.
  • Make necessary workflow & process improvements.

- Future improvement considerations:
  • How will using the EHR at the point of care alter the workflow?
  • What tasks can be combined once an EHR is in place?
  • What changes will result from improving workflow and how will the practice manage the change?

Assessment Phase
• Assessing practice’s cultural readiness and IT proficiency
• Developing a vision for the project
• Determining a budget
• Creating a project team

Organizational Readiness
• Cultural
• Leadership
• Operational
• Technical
Tools for a Successful Assessment
Paper Tracer was adopted as our Business Process Management Software. It allows us to easily use our SQL Modules & Assessment Tools to deploy powerful custom SQL databases, make them collaborative with both internal and external users, and personalize with your Corporate Logo.

Paper Tracer allows us to “Add” data related to the practice directly into a predefined web URL that can be accessed online.
Allows us to capture existing computer infrastructure, existing server configurations, and computer acumen. The database is completely customizable and allows for real time client recommendations as a deliverable report.

Allows us to present and mitigate risk. This data can then be used in the client deliverable report and <click> presentation of data.
Allows us to export data directly into a stoplight report as a portion of the client deliverable. The tool allows us to be vendor agnostic and provide factual data that can be used in identifying the best EHR System for the client needs.

Section 3: Change Management

### Recommendations

Our key recommendations are illustrated in the “Stop Light” report below:

- **Red**: Any system purchased other than Medisys EHR will require extensive interfaces to integrate EHR systems with the already in place Lytec Practice Management System. Interfaces will require additional capital. Most vendors will charge an annual (GPO) cost for implementation of these interfaces. As well, annual support fees will be incurred.

- **Yellow**: Due to Lytec being located internally as a client/server solution, the recommended solution for an EHR is to remain with a client/server solution. If a Web solution is adopted, the HL-7 interface between Lytec and the EHR will have to flow across the WAN. This has the potential to be problematic.

- **Green**: Recommended solution is Medisys EHR. We believe this will be the most cost-effective approach to integration since Lytec is owned by Medisys, Inc. Whatever interface that needs to be in place, we will be able to negotiate to be included at no cost to ideal. Annual support fees will still be required. Ideal will have the most integrating power if a Medisys product is implemented.

### 10 Step Journey Through Change – Journey

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<thead>
<tr>
<th>STEP</th>
<th>DESCRIPTION</th>
<th>BEHAVIORS</th>
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</table>
| Step 1 | EQUILIBRIUM                                                                 | • Everyone vested in the status quo  
• Personal and professional goals in sync with the organization  
• Referred to as “No Growth Phase” |
| Step 2 | DENIAL                                                                      | • Energy is drained as it is used to keep the world looking as they see it  
• As pressures build, it takes more and more energy to rationalize denial of the reality of the change  
• Staff experience negative changes — changes to physical health, emotional balance, logical thinking patterns, and normal behavior patterns |
| Step 3 | ANGER                                                                       | • Staff blame others and demand that “someone else make things alright”  
• Anger is usually directed at individuals perceived to have the power  
• The past is glorified and the present made worse than it actually is |
| Step 4 | BARGAINING                                                                  | • Negotiations occur in many areas  
• Bargainers may appear rational, logical, and professional  
• “To get along, you have to go along” |
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<tr>
<th>STEP</th>
<th>DESCRIPTION</th>
<th>BEHAVIORS</th>
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</table>
| Step 5: CHAOS | Up until this time, staff have been expending energy in avoidance, resistance, and denial. | • Nothing seems to work anymore  
• There is diffused energy  
• Feelings of powerlessness and insecurity  
• “Does anyone know where we’re going” |
| Step 6: DEPRESSION | Resources are depleted; a terrible sense of nothingness prevails, people wallow in self-pity. | • Staff realize they no longer have energy left to produce results  
• Fear of loss causes reactive depression  
• Time spent remembering the “good old days”  
• No “quick fix” or checklist of guidelines to follow to solve the emotional problems associated with change |
| Step 7: RESIGNATION | As people work through the depression, they finally come to accept the reality of the change and no longer resist it. | • Staff are neither depressed nor angry about the change  
• May not actively, cheerfully support the change  
• There is some commitment to the effort |
| Step 8: OPENNESS | Once change is accepted at the personal level and values rearranged, staff can then proceed with growth in a new direction. | • People are ok with “I don’t know”  
• Beginning to expend energy on what others recommend  
• Focus is not yet enough to initiate a project on their own |

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<th>STEP</th>
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| Step 9: READINESS | The emotional “letting go” begins to be noticeable. | • There is willingness to do what is asked for  
• More energy than before  
• Still no willingness to figure out what to do on their own |
| Step 10: RE-EMERGENCE | The change becomes fully operational as staff move from the old ways to the new state. | • Staff test ideas on their own  
• Gradual re-investment of selves in the organization  
• More proactive and empowered  
• Staff re-define their role and meaning in the organization  
• Re-energized, strong sense of direction |
Health Information Technology Workflow Redesign
Presentation Handouts

Session description
Today’s presentation will review different areas of the Electronic Health Record and explore ways your workflow may change as a result of the implementation. We will review the following areas of functionality and workflow modification:
- E-Prescribing
- Task Management
- Lab Interfaces
- Progress Note Documentation
- Health Information Management Department (HIM)

Section 1: E-Prescribing

E-Prescribing
- A major component of an EHR
- Automated prescription writing from a complete database of medications
- Checks for interactions, allergies, etc.
- Generates a Medication List
- Provides printable information on medications
- Able to send prescriptions to most pharmacies, electronically
- Provider can set up “Favorites”

Process for Completing Manual Prescriptions
- Determine med to prescribe
- Check for contraindications and potential interactions
- Write prescription in progress notes
- Write prescription on medication list
- Write prescription on prescription pad

Process for Completing Electronic Prescriptions
- Determine med to prescribe
- Create prescription in HER
- Prescription sent out wirelessly and electronically
- System creates medication list
- Med noted in progress notes

Benefits of E-Prescribing
- Less time to create and submit prescriptions
- No need to pull paper record for med refills
- Current medication list created (accessible to all Providers)
- Decrease in errors due to:
  - Misinterpreted handwriting
  - Inappropriate drug dosing
  - Unrecognized drug interactions
Section 2: Task Management

Task management

- Most EHRs provide a module that allows staff to create, view and process tasks electronically.
- Examples of tasks:
  - Labs pending signature
  - Prescription refill requests
  - Telephone calls
  - Notes pending sealing
- Easy completion of tasks
  - Tasks are saved as part of the patient's record

Benefits of Utilizing a Task Management System

- Reduction in malpractice risk
  - Tasks processed are stored in electronic record (elimination of "sticky note syndrome")
  - Tasks are date and time stamped
  - Improvement in "bottom-line" (via increase in efficiency)
  - Reduces need to find, retrieve, document task manually and then, file paper record
  - Decrease in provider interruptions during patient care

Section 3: Lab Interfaces

Lab Interfaces

- Lab interfaces exist for most major reference lab companies
- Interfaces can be developed for lab companies without an existing interface
- Lab requests are processed electronically
  - Lab results return directly into:
    - Patient's electronic record
    - Provider's electronic task list
  - Signed off and processed electronically

Manual Processing of Labs

- Provider/staff manually complete lab request form
- Patient presents for blood draw
- Lab staff manually log out labs
- Specimen sent to processing lab
- Lab is processed
- Results are faxed back to center
- Lab staff log in results and sort for providers
- Providers sign off on labs and submit to support staff
- Support staff processes abnormal labs
- Med records staff file labs
  *Average turnaround time 1-3 weeks
Electronic Processing of Labs
- Provider/staff manually complete lab request form
- Patient presents for blood draw
- Specimen sent to processing lab
- Lab is processed
- Providers sign off on labs and submit to support staff
- Support staff processes abnormal labs
  *Average turnaround time less than 1 day

Benefits of Lab Interface
- Improvement in Quality of Care
  - Decrease in turn-around time for requested labs
  - Decrease in Malpractice Risk
  - No missing abnormal labs.
  - Date/Time-stamped processing of labs
  - Improvement in “Bottom-line”
  - Less duplication of labs
  - Decrease in number of support staff needed per provider (allows re-allocation of resources).

Section 4: Progress Note Documentation

Electronic Progress Note
- Provider selects patient symptoms and physical findings, etc.
- System translates into complete sentences
- Forms with prompts for different diseases
- Able to suggest possible diagnoses based on documented findings
- Able to provide CPT and ICD-9 codes.
- “Single” info entry (populates problem list, family history, social history, medication list, etc).

Progress Notes- Manual
- Provider documents in progress notes
- Updates problem list
- Updates medication list
- Updates allergies
- Updates flow sheets
- Completes prescription

Progress Notes– Electronic
- Provider documents in progress notes
- System creates family and social history list and care plan
- CPT and ICD9 codes and billing

Benefits of E-Documentation
- Better continuity of care
- Better closure to outstanding problems
- Templates support Disease Management
- More complete documentation of visit
• Better coding and increase in RVU information populates other portions of EHR

**EHR: Capture of Data from Point of Care Documentation**
- Vitals, medication, labs and encounter documentation all compiled into a management report

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**Section 5: Health Information Management**

Health Information Management (HIM) Department (Medical Records)
- Chart pull list is created based on appointment schedule
- Charts are manually pulled from the shelf
- Charts are delivered to the appropriate department / office
- Charts for walk-in patients are pulled, specific components faxed / scanned to the appropriate office
- Incoming mail and specialist reports are delivered to HIM for placement into patient chart.

**Health Information Management after EHR**
- Charts are pulled and pertinent information scanned for patients with existing paper records.
- New patients do not require a paper chart.
- HIM scans incoming mail and specialist reports and flags for the provider to review and sign off.
- As paper charts are scanned, they are marked as such and stored.
- HIM functions move from manual to electronic providing an added skill set and more efficient use of staff.
Due Diligence & Vendor Negotiations
Presentation Handouts

Session Description
This presentation will cover the basics of the Due Diligence and Vendor Negotiation Process, and builds upon the experience of Health Center Controlled Networks who have been developing, implementing, hosting, and supporting safety net providers on advanced Health Information Technology systems for more than a decade.

Section 1: Vendor Selection

CHCA’s EHR Vendor Selection Due Diligence
Early 2003: Began market scan and research
Mid 2003: Started Workflow Analysis Process
Early 2004: Sent our RFI package to six vendors
Spring 2004: Two full day presentations by top two contenders for over 30 providers; began contract negotiations with both vendors
Summer 2004: Two full day hands-on demonstrations by vendors with select providers
Fall 2004: Announced primary vendor choice; continued negotiations with both vendors
Nov 2004: Primary vendor eliminated; continued negotiations with other
Dec 2004: Contract signed with Vendor
Sep 2005: First Go-Live

Selection Process Overview
› Selection Committee
› Request for Information
› Self-Education
› Dog n’ Pony Show
› Request for Proposal
› Scoring Assessment
› In-depth / Situational Vendor Presentations
› Site Visits
› Vendor Selection
› Contract Negotiations

Selection Committee
› Physicians, ARNPs, PAs, CNMs, etc.
› Nursing
› Finance
› Operations
› Medical Records
› And More Providers!

Requisition for Information
› Tool for self-education
› Items to request
   › Corporate information
   › General client information
Target markets
Support / Implementation methodologies
Features / Competitive Advantages

Self-Education/Mini-demos
- Vendors perform mini-demos
- Schedule “Lunch and Learn” sessions
- Deliver via Webex type services
- Education component – not final selection
- Seek out peers, technical assistance

KLAS and Others
- Investigate their methods
  - Statistically sound?
  - Interactive competition?
  - How are customers found?
  - Judges relationships to vendors?
  - Vendors’ members / sponsors of ranking organization?
  - Is organization a stakeholder?

Narrowing the field
- Thoroughly read the RFIs
- The more eyes the better
- Compare and contrast
- Look past the gloss
- Evaluate the quality of responses
- Listen to colleagues
- Reflect upon mini-demo sessions

Dog and Pony Show
- Top choices invited
- One day for each
- Primary attendees – providers, nursing staff
- Use patient visit scenarios
- Control the demo

Using Patient Visit Scenarios
- At least 6 sample visit scenarios
- Cover the spectrum of service types
- Provide 3-4 days prior to demo
- Establish moderator / interaction
- Use a Scorecard

The Demo Score Cards
- Limit scope
- Cover scenarios and only key areas
- All providers participate in scoring
- Weight each area or item
- Allow free text comments
Section 2: Request for Proposal

Request for Proposal

- Only top vendors
- Must be very controlled
  - Give single point of contact
  - Dictate format for responses
  - Adhere to deadline
- Document vendor questions and replies
- Provide short- and long-term projections
- Technical infrastructure
- Current in-house staffing and support plans
- Leadership
- Contracting entity

Crafting the RFP Package

Vendor Information:

- Request references that will provide satisfactory as well as dissatisfied responses
- Commitment to your local market?
- Are references or show sites paid?
- Project management samples

Functional Requirements

- Very Important RFP Component
- Expand with details
- Designating “required” vs. “optional” requirements
- Attaches to the contract
- Use HRSA guidelines as starting point
- Clinicians must provide input

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<thead>
<tr>
<th>Specifications</th>
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<th>Yes, Include</th>
<th>Yes, Additional Cost</th>
<th>N o</th>
<th>Comments / Clarifications</th>
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<td>1. Meaningful use (as defined in CMS' Final Rule for the Medicare &amp; Medicaid EHR Incentive Program)</td>
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<td>1.1 The system supports the entire Meaningful Use Final Rule. Each of the specification target dates is met with ample time to allow for template modifications, data entry and report production</td>
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<td>2.1 The system supports both a total paperless function and a hybrid function (part paper, part electronic) where the contents of the electronic record can be printed for inclusion in the paper chart.</td>
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<td>2.2 The system interfaces with a variety of digital and analog dictation systems (tape devices).</td>
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<td>2.3 The system date and time stamps all entries.</td>
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<td>2.4 The system includes automatic translation of codes to dates. For example:</td>
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<td>2.4.1 ICD-9-CM</td>
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<td>2.4.4 CPT (4 and 5)</td>
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<td>2.4.5 ICD-10 (As of 1/15/10, current CMS deadline for implementation of ICD-10 is 10/1/13)</td>
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Scoring Assessment- The RFP Scorecard
- Tie back to functional requirements
- User friendly, allow for comments
- Committee to weight each area
- Limit areas – High priority focus
- Grade RFP response thoroughness and quality

Site Visits
- Compensated show site
- The team – (Minimal) Provider, nursing, IT
- The team – (Optimal) + Executive leadership, operations, finance, billing
- “To-See-and-Ask List”
- Ask for references

Vendor Selection
- What is included in the license fee?
  - Formulary subscription / updates?
  - Drug interaction subscription / updates?
  - Database licensing?
  - Patient education materials?
- Perform five year investment / cost analysis

Licensing Fees
- Must understand licensing
  - Per Physician
  - Per Provider
  - Per Named User
  - Per Concurrent User
- Thoroughly understand vendor definitions
- Thoroughly understand how they audit license compliance

Support Structure
- Hours of operations
- Methods of support
- User community
  - Local
  - Regional
  - National
- Special Interest Groups
- After hours support access / costs
- Service Level Agreements (SLAs)

Corporate Comparisons
- Positioned as a buyer
- Positioned for a buy
- History of reorganizations?
- History of management changes?

Contract Comparisons
To Vendors: “Put your money where your mouth is”
- Get it in writing
- Comparison tracking
- What’s not included
- If they won’t put in writing what they verbalize, walk away!

**Contract Negotiations**
License: “Subject to the provisions of this Agreement as well as the payment of all applicable license fees for the term of this license, Vendor grants to Customer and Customer accepts a limited, personal, nonexclusive, nontransferable, non-assignable Object Code license to use the software for Customer’s internal use only.”

The above is a sample of common “licensing” language that might be found in an EHR agreement. It is important that you understand the scope and application of the license. *Source: William P. Dillon, Esq. Messer, Caparello & Self, P.A. Tallahassee, Florida*

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**Section 3: Contracting**

**Contract Terms**

**Warranties:**
- Either owns or is authorized to license software
- Conformance to product specifications
- Free from material defects
- Services and installation performed in accordance to professional standards
- Operation of the software
- Product updates to comply with changes in the law
- Integrity of data
- Length of warranty period
- Third party warranties
- Pending litigation
- Software Escrow
- Identify specific Vendor staff who will be on site
- Others
*Source: William P. Dillon, Esq. Messer, Caparello & Self, P.A. Tallahassee, Florida*

**Limitation of Liability Issues**
- **Licensor – Seeks to Limit all forms of Liability**
  - Actual direct damages
  - Liable only to customer, not clients of customer
  - Limit the time in which claims may be brought
  - Limit the amount for which it might be held liable
  - Others
- **Licensee – Seeks to expand basis of liability**
  - Carve out specific certain types of claims
  - Expand liability for injury to customers
  - Expand time for claims
  - Expand amount for which Licensor might be held liable
**Negotiate With Both Vendors**
- A lot of work! Saves time later.
- Negotiator must be armed with knowledge
- Conduct with integrity
- Document, document, document
- Thoroughly reread every version of contract sent
- Involve attorney before signing

**Dog and Pony #2**
- Don’t be afraid to require
- Use to clarify functional differences
- Limit participants
- Use that scorecard
- Document key differences
- Have vendor append functional requirements document

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**Section 4: Resources**

**Resource Ideas**
- AAFP’s Center for Health Information Technology: www.centerforhit.org
- Health Information Management Systems Society (HIMSS): www.himss.org
- AAP Child Health Informatics Center: www.aap.org/informatics/chic.html
Session Description

- You can work with a HCCN and a REC or either one separately
- Who you will be sharing patients with?
  - Are they part of a HCCN?
  - Is it one or many diverse partners?
  - Is there a functioning health information exchange (HIE) in your community?
  - How are you connected to the hospital or hospitals in your area and how likely are your patients to be treated there?
- How many of your providers are MDs?
- How many of your patients are Medicaid and how many of your patients are served by ARNPs and MDs.

Section 1: Acquiring and Supporting EHRs

Special Considerations for Acquiring and Supporting EHRs Today

- Massive federal incentives
- Immature EHR market
- The “big” players for the most part are not seen as the big players in the IT market
- Vendors that have prospered based on implementation and marketing will not survive in their current organization
- Market consolidations in other businesses should serve as a good example of what will happen
Your Goals for Acquiring an EHR Should Drive Your Decisions

- Clinical quality
  - Improved documentation
  - Improvement in established measures
- Return on investment
- Data aggregation and benchmarking
- Health information exchange
- Improved billing

Going It Alone

- “Our system will be so different from all the others the HCCN is supporting or that the REC is working with”
  - How likely is this system to be successful in the coming consolidation of EHRs?
  - If you system is that successful technically who is likely to buy it?
- “We believe that we will continue as a stand-alone system partnering with many”
  - How will you work out the HIE issues? Do you have the skills in house?
  - How will you work out the shared savings, ACO or Primary Care Medical Home model? How will you show your worth in these models?
- “The vendor and the technology will advance and we will be able to communicate with those around us”
  - Competing HIE strategies are likely to continue for several years, who on your staff will help you make critical decisions of how to invest?
– The vendors’ track record providing excellent tools for your type of organization speaks for itself.

• “There is no good data on how you measure clinical quality in our specialty”
  – How will you show your value?
  – How will you decide to build clinical content and how universal will that be?
• “Our vendor has been a good partner and we work with them and they can build us what we need for our organization”
  – This is not a sustainable business model for most vendors as they grow
  – Would you be more effective with the vendor if there were many of you asking for the same things?

When You Should be Considering Your Regional Extension Center

• When you have a large number of MDs or ARNPs providing care in your organizations
• When you are making an effort to draw down Federal or State incentive dollars
• When you are striving to achieve Meaningful Use
• When you are a small practice (less than 10) or are a part of FQHC or RHC

What the Extension Center Can Provide

• List of previously vetted vendors
• Direct implementation support
• Change management support
• HIE expertise in your communities
• Group purchasing
• Ongoing support relationships
• Privacy and Security Support
• Quality Improvement Collaboration
• Support for the development of an shared savings model

System Selection Process

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<tr>
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<th>RFP</th>
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<th>Site Visits</th>
<th>Demonstration</th>
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<tr>
<td>Financial Stability</td>
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Preferred EHR Vendors

• Advantages
  – Systematically selected
  – Expert review
  – Real customer feedback
  – Most likely not a regional player
  – Pay attention to
  – If the extension center is working with other clients like you
  – Mental health is clearly addressed, specialty and primary care based
  – Relationships between the extension centers and vendors
Direct Implementation Support
- Skilled implementation staff
- Past experience with the applications you are considering
- General information technology expertise for the setup and system selection
- Workflow expertise
- System redesign and support experience
- An understanding and experience with the change management required to bring your staff along

Health Information Exchange Expertise
- Extension centers are required to coordinate with the State Designated Entity (SDE) in your state and facilitate the easy communication between providers of appropriate clinical information
- Support for interpretation of the CFR 42 etc.
- Vetting of cultural vs. legal interpretation of the law
- Privacy and security support

Group Purchasing Organization
- Special pricing for preferred EHRs
  - Most extension centers have special pricing for EHRs
  - Most extension centers have standard contracts that include the full functionality required to meet meaningful use
  - Many extension centers also have special pricing for related information technology contracts
    - Connectivity
    - Hardware
    - Hardware support etc.
  - General Group Purchasing
    - Office supplies, dry goods, etc.
    - Fax machines, printers, copiers etc.

Ongoing Support Relationships
- Many of the extension centers are focusing on long term support of the EHRs as a method of sustainability
  - Hosting
  - Quality Improvement
  - Business Services (billing out sourcing)
  - Development of the QIO
  - Data aggregation and benchmarking
- Pay attention to how much you are like the other organizations the extension center is supporting

Privacy and Security Support
- Mental health security and privacy laws are often misinterpreted
- Cultural norms are not always supported by the laws
- The environment is changing very quickly
- Many extension centers have privacy officers and can afford access to specialized lawyers for interpretation
- Extension centers will serve as one of the influencers of what the community norm is in your community
Quality Improvement

- Many extension centers are providing quality improvement training and consultation
- Many extension centers are serving as the convening body for improvement collaborative
- Clinical quality improvement expertise
  - When and how to use clinical decision support (CDS)
  - Configuring CDS to best meet the needs of users
  - Workflow analysis and reengineering
  - Intervention strategies to improve care delivery and health outcomes
  - Working with teams to design and test improvement solutions

Section 2: Consideration of Health Center Controlled Networks

When To Consider a Health Center Controlled Network (HCCN)

- What is the population of patients that you serve?
- How closely are you affiliated with FQHCs already in a HCCN?
- Is there an HCCN that is serving organizations like your selves?

Choosing Your HCCN

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<th></th>
<th>RFP</th>
<th>References</th>
<th>Site Visits</th>
<th>Demonstration</th>
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</table>

Issues for Selection of an HCCN

- How financially sound is your HCCN?
- How much do they rely on HRSA grants?
- Is the other grant funding coming from other sources?
- What is their relationship to the vendor or vendors they support? Specifically the vendor you are interested in…
- What services do they offer, just hosting or a more complete IT outsourcing option?
- How do their members work together?
- What do their members think of them?

What an HCCN Can Provide

- Economies of scale
- Specific expertise with respect to local billing requirements
- Specific expertise with respect to local reporting requirements
- Stable EHR operations not run by your EHR vendor
- A community of similar organizations working toward similar goals
Find a Health Center Controlled Network: findanetwork.hrsa.gov

HRSA Toolbox
Organization of Modules
- Module 1: Introduction to Health IT
- Module 2: Getting Started
- Module 3: Opportunities for Collaboration
- Module 4: Project Management and Oversight
- Module 5: Planning for Technology Implementation
- Module 6: Organizational Change Management & Training
- Module 7: System Implementation
- Module 8: Evaluating, Optimizing, Sustaining

HRSA Toolbox
Welcome to the HRSA Health IT Toolbox developed by the HRSA’s Office of Health Information Technology (OHT). This resource is meant to serve safety net health care providers seeking to implement health IT to improve the overall effectiveness of their enterprises. We have organized the resource in a question and answer format and have attempted to compile a range of resources relevant to all stages of considering, planning, executing and evaluating the implementation of health IT. We have included public available resources as well as resources developed by HRSA specifically for the Toolbox.

Topics Available in the HRSA Health IT Toolbox
- Introduction to Health IT
  - What is Health IT?
  - Why implement Health IT?
  - What does HITECH mean for health IT?
  - What is the Federal push for Health IT?
  - How much does health IT cost?
- Organizational Change Management and Training
  - How do I get support from senior management?
  - How do I get buy-in from the various stakeholders?

About HRSA Toolkit
- What is in this health IT toolbox?
- How are we defining Health IT?
- Why should use this tool?
- What will I find in each module?
- What is the best way to use the toolbox?
- How can I learn about how others are using the tool?
- How can I learn about how others are using the tool?

• Module 9: Advanced Innovation Topics

*Module 3:
• What are health center networks?
• How do we choose a network that is right for us?
• How do we learn about networks in our area

Find Your Regional Extension Center Partner Online: HealthIT.hhs.gov – select “HITECH Programs”

Section 3: EHR Implementation

Benefits
• Instant access to needed information
• Improved clinical care and health outcomes
• Increased office efficiency
• Enhanced communication
• Increased client and staff satisfaction

Growth of Physicians with EHR’s
Successful implementation
- Leadership, Leadership, Leadership
- Communication
- Creating an atmosphere for change
- Dedicated Project Manager
- Choose and empower core EHR Team
- Assess needs – develop/execute solution for gaps
- Financial analysis and preparation
- Workflow analysis compared to best practice
- Training
- Time
- Celebrate successes along the way
- Include a Risk Mitigation Plan

Context for the EHR

Behavioral Health Program Components
- Practice management-scheduling, billing, reporting
- Data extractions/utilization management
- Systems integration-radiology, lab, pharmacy
- Clinical documentation
- Workflow
- Efficiency

Components for Specialty Mental Health

<table>
<thead>
<tr>
<th></th>
<th>Patient identification elements to specialty and level of service: mental health, addictions, developmental disabilities, child/adult, outpatient/intensive outpatient/residential</th>
</tr>
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<tbody>
<tr>
<td>Health Record</td>
<td></td>
</tr>
<tr>
<td>Documentation Tool</td>
<td>Clinical documentation tools specific to specialty and level of service: mental health, addictions, developmental disabilities, child/adult, outpatient/intensive outpatient/residential</td>
</tr>
<tr>
<td>Practice Management</td>
<td>Scheduling, billing and reporting</td>
</tr>
<tr>
<td>Workflow Tools</td>
<td>Encounter specific, intervention specific, disease specific</td>
</tr>
<tr>
<td>Efficiency Tools</td>
<td>Dynamic clinical documentation, centralized view management, care coordination tools, patient education tools</td>
</tr>
</tbody>
</table>
OCHIN System

- Based on best practices for setup and use of integrated practice management and Electronic Health Record system
- Lessons learned from implementing and managing at 40+ organizations in 7 states over 10 years
- Supports all 15 core objectives of meaningful use, plus 5 of the 10 menu objectives required for Phase 1 meaningful use incentives.
- Use of the model system has been found to decrease errors, reduce workflow issues in the clinics and help ensure necessary data collection.

Implementation Process

<table>
<thead>
<tr>
<th>Initiation and setup</th>
<th>Model system overview</th>
<th>Member setup</th>
<th>Setup validation</th>
<th>Final preparation and go live</th>
<th>Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction and expectation of member executives</td>
<td>Demonstrate OCHIN model system workflows, educate project team and assess potential high risk gaps (related to labs and billing); member project team to be trained enough so they can update their policies</td>
<td>Prepare the model system for testing; members prepare for UAT and implementation; prepare site specialists to support clinic staff</td>
<td>OCHIN and super users to confirm system is adequately prepared for implementation and go/no go decision made</td>
<td>Final preparation for cutover to model system</td>
<td>Ensure the successful use and implementation of the OCHIN model system</td>
</tr>
</tbody>
</table>

*Core initiatives across the process: training, change management, collaborative participation, workflow development, project management

Assess Needs

- What you want to accomplish with an HER
- Determine who needs access to the system – role based security
- Top 20 visit diagnosis - charting tools to make it “easy to do the right thing”
- Expect to make changes after go-live
- Evolving all paper policies into the electronic world
- Determine data needs and for what specific purposes
- Reevaluate current regulations for federal, state, county, unique grants

Financial Analysis

- Design- Build – Validation Process
- Staff time – training, extraction, novice to expert
- Productivity implications post go-live
- Space renovation
- Hardware, software, connectivity
- Training and education
Leadership
- Must have Executive leadership throughout
- Must have clinical leadership throughout
- Great idea to have Board leadership
- Choose wisely, trust and empower your core EHR team
- Be visible, supportive and unwavering in commitment
- Expect the best, plan for the worst
- Recognize successes

Communication
- Communication is critical
- Develop a comprehensive communication plan for every phase of the project and for every major stakeholder
  - Board
  - Clients
  - Staff
  - Partners
  - Local community

Prepare for TRANSFORMATIONAL Change
- Be clear about what do you want to accomplish with an HER
- EHR vision must be aligned with organization’s mission
- The new vision needs to be articulated and actionable
- Vision statement should be clear, bold and visible to all staff
- Unequivocating executive, clinical and operational leadership
- Strive for total clinic buy-in
- Develop and empower core integrated EHR team
- Expect a wide variety of reactions to change

Dedicated Project Manager
- There is nothing in your organization that won’t be impacted by this project…you NEED explicit accountability
- You also need someone talented at project management, has proven interpersonal communication skills, knows your organization well and that others will follow
- So many moving parts you can’t afford to not have one
- Ensures every detail is tracked and ensures your success

Core EHR team
- Be clear about what do you want to accomplish with an HER
- EHR vision must be aligned with organization’s mission
- The new vision needs to be articulated and actionable
- Vision statement should be clear, bold and visible to all staff
- Unequivocating executive, clinical and operational leadership
- Strive for total clinic buy-in
- Develop and empower core integrated EHR team
- Expect a wide variety of reactions to change
- Prepare clients for the change ahead of time

Clinic Staff Involvement
- Keys to success—include the right decision makers
  - Executive sponsor
• Operations representative
• Clinical champion
• Project leadership
• Subject matter experts
• Union representative
• Nursing leadership
• IT representative

**Workflow Development**
- Include all departments
- Document workflows from multiple sources
- Consider how appointments are scheduled
- Do not discount anomalies
- Opportunity to streamline and standardize work processes
- Anticipate and embrace new methods for accomplishing the same task

**An EHR that does not integrate smoothly within the clinical workflow will not allow for variation in style and risks poor adoption among users or improper and unnecessary workarounds.**

**Mental Health**
- Confidentiality of orders and notes on the chart
- Exchange of information with other organizations
- Region, State and Federal Regulations
- Billing Considerations
- Use of Patient Portal Technologies
- Interpretation the laws pertaining to privacy and security

**Training**
Staged and tailored to role:
- Consider each department’s needs for training
- Clinicians learn best from other clinicians - demo, training & support
- Work with vendor on on-line training modules
- Establish “super users” for each department
- To assist others and to lead the way in promoting best practices
- Be aware that basic computer skills WILL be necessary
- Staff will need time to initially adapt – followed by supplemental training

**Managing the Go Live Process**
- Supporting at the elbow
- Important to plan ahead
- Dress Rehearsal to reduce surprises
- Managing rollout on a daily basis
- Managing to pre-established success criteria

**Ongoing Support**
- Support at the site
- Managing infrastructure
- Change is constant (reporting, billing, grants, QI initiatives, meaningful use)
- Ongoing training activities
- Measuring and monitoring success metrics

**Time**
- Remember, this is a transformational process involving your entire organization.
• Balance need to just get it done with patience needed for wholesale change.
• Allow for deviations within your project plan that you may not have any control over – these outside risks should be documented and planned for in your risk assessment.

Avoid Pitfalls
• Underestimated short-term costs
• Underestimated on-going maintenance costs
• Poor executive leadership
• Limited buy-in from staff and clinicians
• Inadequate training –pre/post implementation
• Insufficient mapping of workflow & delegation
• Lack of qualified internal support for new technology
• Underestimate impact of change
• Disregard for need to pace change

Critical Success Factors
• Executive Involvement
• Physician Champions
• Efficient Training
• Communications Processes
• Managing Expectations
• Planning for Support

Celebrate
• Change is hard…transformational change is really hard.
• It’s powerful to acknowledge change. Strike a balance that works for your organization.
• Celebrate small, celebrate big….just celebrate
Disaster Recovery & Business Continuity Planning
Presentation Handout

Session Description
This presentation will cover the basics of Disaster Recovery / Business Continuity Planning, and builds upon the experience of Health Center Controlled Networks who have been developing, implementing, hosting, and supporting safety net providers on advanced Health Information Technology systems for more than a decade. A primer on Change Management for Health IT is included.

Section 1: Disasters

Why Develop a Business Continuity Plan (BCP)
“Because Bad Things Happen to Good People”

- Example 1: Hurricane Katrina
  - Housing Losses - $67 Billion
  - Business Property Losses - $20 Billion
  - Total Property Losses - $96 Billion
- Example 2: H1N1 Outbreak

Map data current as of 22:36 EDT 25 June
Disasters Big and Small Impact Practices Daily Without a National Headline

- Fires
- Floods
- Wind/Rain/Snowstorms
- Earthquakes/ Hurricanes/Tornadoes
- Structural/Roof collapse
- Power failures
- Hazardous/Toxic chemical and vapor release
- Elevator breakdown
- HVAC failure
- Telephone/ Telecommunications failure
- Crime/ Bomb threats / Terrorism
- Transportation accidents, including air, rail and road
- Data and information storage and retrieval collapse
- Medical / Health emergencies

What is the Disaster Effect?

- Personnel Shortages (H1N1 Flu)
- Some sites may be closed (Tornados, Floods, Hurricanes, Blizzards)
- Sites open but computer room / data center destroyed (localized fire; water-based fire suppression)
- Failed applications (IT systems upgrade)
- Data connections down (wild hogs!)

EHRs – The Solution Not the Problem

Paper World:

- Charts destroyed or strewn throughout the area
- No audit trails for improper access
Critical loss of patient information
Lost revenue
Patients lose confidence in the practice

EHR World:
“I just picked up my tapes and left town.” -- Anonymous Physician posting after Katrina

Section 2: Practical Backups

EHRs – Step One:
Remember: It’s not a matter of IF; it’s a matter of WHEN

Minimally Acceptable:
- Verified tape backups kept in separate location than primary servers
- Restore processes tested quarterly

Good:
- Verified encrypted tape backups off-sited via service to secure location (i.e., Iron Mountain)
- Tape recall and restoration tested quarterly

Better:
- Disk to Disk backups (faster recovery)
- Secondary encrypted storage secured offsite
- Tested quarterly

Best (but not always practical):
- Disk to Disk backup to offsite secondary server farm
- Tested quarterly

Excellent (but rarely practical for a stand-alone health center or private practice):
- Continual Disk to Disk data feed to secondary site
- Possible workload sharing
- Tested quarterly
Seven Tiers of Disaster Recovery

<table>
<thead>
<tr>
<th>Tier</th>
<th>Off Site Backup</th>
<th>Hot Site</th>
<th>Electronic Vaulting</th>
<th>Point In Time Commit</th>
<th>Transaction Integrity</th>
<th>Zero Data Loss</th>
<th>Automated Failover Recovery</th>
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<td>7</td>
<td>Data Loss Potential</td>
<td>Recovery Time</td>
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Business: The Driver for It

- Recovery Point Objective (RPO): How much data are you willing to risk?
- Recovery Time Objective (RTO): How quickly do you want to recover your systems and be back online?

Costs of Downtime

- Major workflow impacts
- Patient Dissatisfaction
- Patient Safety
- Post-recovery data entry and data QA
- Community confidence

Minimizing Downtime Potential and Impact

- Change Control policies and procedures
- Business Continuity & Disaster Recovery plans
- Communication, Communication, and Communication

Clinical Operations During Downtime

- What forms do providers have available for quick documentation?
- Who authorizes or initiates downtime alternate procedures?
- Who are the primary point persons for communications and feedback?
- How are prescriptions handled?
- Availability of offsite reporting of critical information (meds, allergies, problems)
- Who enters and signs off on data from downtime?
- What is the required turnaround time for data entry?
- How are paper documents filed, scanned, or destroyed after entry into EHR?
- How will you track all paper documents to ensure they are accounted for?
Section 3: Other Threats to EHR

People threats
Ponemon Institute Study:
Employees routinely engage in activities that put sensitive data at risk
- 61% download data on unsecured mobile devices
- 47% share passwords
- 43% lose data-bearing devices
- 21% turn off mobile device security tools

Employees routinely engage in activities that put sensitive data at risk
- They blur the line between personal and professional lives
- 52% use web-based personal email in the office
- 53% download Internet software onto employers’ devices
- 31% engage in online social networking while in the workplace

Interestingly, of those surveyed
- 58% said their employer failed to provide adequate data security awareness and training
- 57% said their employer’s data protection policies were ineffective
- 43% said there was poor communication and enforcement of data security policies

Laptops
- The FBI reports that 47% of data breaches are due to stolen laptops
- Ponemon Institute reports:
  - 12,000 laptops are lost in airports annually
  - Cost: $202 per lost customer record

Laptop Security Suggestions
- Hard Drive Password on boot-up
- Encrypted disk drives, flash memory access control and encryption
- Biometric access control, screen saver password
- Don’t leave unattended in public place
- Airport security – hand over at last moment
- Never pack the laptop in luggage
- Lock in trunk – a few blocks away
- Security cables/Safe when traveling
- Avoid Peer-to-Peer Networks

SAFEGUARDING YOUR EHRs
- Backups: Chain of Custody
- Passwords:
  - Standards (Length, Combinations, Symbols)
  - Timeout Features
- File Attachments: Limitations
- Audit Trails: Optional Levels
- Wireless Network Risks: Encryption Keys
- Key Capture Software: Scanning Software
Zero Tolerance Policy

- Educate & Communicate:
  - Clear Expectations
  - How to Report Suspicious Activity
  - Give Passwords to NO ONE
  - Discipline Policy
  - Know the PHI Breach Reporting Requirements *(Federal and State levels)*
- Suspicious Activity Will Be Reported To the FBI

Goal: Identify and Mitigate Risks to a Reasonable Level
Procrastination = Death in business continuity planning

“You’ll notice the backlog is becoming slightly steeper as we approach the Cliffs of Procrastination.”

Section 4: Change Management

What is Change Management?

- It's a noun: "Change management is key to the project."
- It's a verb: "We really need to change manage that process."
- It's an adjective: "My change management skills are improving."
- It's an expletive: "Change management!"

The Real Definitions

- Change management is a structured approach for ensuring that changes are thoroughly and smoothly implemented, and that the lasting benefits of change are achieved. *(Mind Tools)*
- The goal of the Change Management process is to ensure that standardized methods and procedures are used for efficient and prompt handling of all changes, in order to minimize the impact of change-related incidents upon service quality, and consequently improve the day-to-day operations of the organization. *(IT Infrastructure Library)*
- To ensure all changes are assessed, approved, implemented and reviewed in a controlled manner.

Benefits to the HIT Environment

- Reduction of unplanned downtime
- Improved service quality and end-user satisfaction
- Reduces risks created by changes
- Reduction of planned downtime
- Systematic approach leads to greater ability to proactively respond to change requests
- Favorable long term adoption of health IT systems (EHR)
- Increases probability of meeting long term objectives

**Effectiveness of Change Management**

![Graph showing correlation of change management effectiveness to meeting project objectives](image)


**The World without Change Management**

**Situation:**
- EHR is in place.
- Great product
- Vendor releases software update
- IT applies the release
- IT reboots the servers
- IT staff believe all is well in the world

**Results the next morning:**
- Several visit documentation screens have changed substantially
- Providers cannot document necessary information
- IT scrambles; eventually calls vendor
- Installation of templates was optional
- Vendor recommends restoring templates from backup
- Practice has continued documenting (which complicates the backup restore processes)

**Impact:**
- Disgruntled clinicians
- Employee morale declines
- Loss of IT credibility
Imagine...What if This Had Been a Full Blown Upgrade

- Loss of respect for management.
- Wasted resources

- New features/functionality for users, but they didn’t know
  - Chaos in workflows
  - Errors in use due to no communication or training
- Some functionality doesn’t work
  - Required upgrade to other system components to continue functionality
  - Users receive system errors throughout the day impeding usability
- Custom reports are problematic
  - Slight changes to data dictionary
  - Database is sluggish
- Security concerns
  - Upload of files from any computer into patient record
  - No controls on file types or sizes

Firefighters beware- Commonly Overheard Statement:
“We don’t have the time or resources for Change Management/Control…. We’re too busy putting out fires.”

Bryce’s Law: “Beware of your firefighters; they are probably your chief arsonists.” – Tim (Milt)
Bryce Management Consultant

Change Management in HIT: Five Steps in Getting Started

1. Executive Management Sponsorship
   a) Leadership is key to success
   b) The Executive and Medical Directors should be sponsors
   c) Investment of time now reduces firefighting later
2. Form a Change Control Board
   Membership Should Include:
   a) System user representation (must be user advocate)
   b) Report writer
   c) Technical staff
   d) Training support
   e) Management
   f) Template developer/programmer
   g) Clinical analyst
   h) Interface developer/manager
3. Establish and document norms and parameters
   a) What comes before the CCB?
     1) Vendor updates
     2) Template change requests
     3) Report development changes
     4) Operating system upgrades
     5) New servers
     6) Other?
   b) Frequency of meetings
   c) How often are changes to production allowed?
   d) What are minimal requirements for CCB approval?
     1) Unanimous vote, management approval, etc.?
2) What level of testing is required?
3) What level of documentation is required?
4) Who participates in and signs off on each component?
   e) How are requests, approval process, and implementation of changes managed?
   f) How are changes communicated to end-users and in what time frame?

4. Communication, Communication, Communication
   a) Hold educational sessions for ALL staff:
      1) Understand Change Management importance
      2) How it will affect them
      3) What they can expect from the process
      4) How changes will be communicated.

5. Implement Change Management:
   a) Don’t expect Change Management perfection Day 1
   b) Adapt processes to needs of organization but stay true to constraints
   c) Out of every CHANGE comes EXPERIENCE and WISDOM
   d) Monitor – Inspect what you Expect

The World with Change Management
   ´ Release Notes reviewed; documentation complete
   ´ Software update applied to testing environment
   ´ Full testing team sign off
   ´ The CCB has spent several weeks (months maybe for a full upgrade) in review.
   ´ It rarely pays to be an early adopter of upgrades
   ´ Full communication and education to end-users
   ´ The update occurs after business hours with further testing
   ´ Follow up with end-users
   ´ The CCB reviews all post go-live notes, documents lessons learned
   ´ Full report to Executive Management

<table>
<thead>
<tr>
<th>Section 5: Resources</th>
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The IT Infrastructure Library- [www.itil.org](http://www.itil.org)
The Prosci Change Management Learning Center- [www.change-management.com](http://www.change-management.com)
The Healthcare Information and Management Systems Society (HIMSS)- [www.himss.org](http://www.himss.org)
Myths about EHRs

- Can integrate all your data
- Will provide you all the intelligence you will need to manage
  - Chronic Disease
  - Prevention
  - Accountable Care Organizations
  - Describe and compare provider efficiency
- You can use the metrics the EHR comes with
  - Clinical Decision Support
  - Population Management

Quest for Wisdom

*Utilizing knowledge and experience with common sense and insight

**Source DM Review Online, November 2000

EHRs vs Chronic Disease Management Systems vs Data Warehousing

- EHRs have yet to measure up to Chronic disease management systems\(^1\)
- EHRs that are not integrated with PM systems do not provide complete metrics
- CDMS do not provide effective point of care clinical decision support
- In larger systems disparate systems need to be connected for effective system intelligence
- To the extent your data is all in one system you may not need data warehousing

Integrated Reporting and Analysis

- A single source for complex data analysis and reporting
- Claims and eligibility, financial data, and clinical data are fed to DW
Logical Architecture

Conceptual Technical Architecture

Base Tables

Value-added Tables

Truth Tables

Metric Tables

PRESENTATION

To Population Management Tools

Disease registries
- Activity status
- Concept attributes

Arches/History Tables as needed (optional)
- Use of My Access to Prototype new metrics

- Metrica properties
- Metrica dictionary

Rosters
Bronze-like Tables

Disease registries
- Activity status
- Concept attributes

Catalog Data
- metadata

Solutions Management System
- dashboard

Excel
Goals of Data Warehousing
• The best clinical practice delivered in a consistent and integrated way
• Lowest appropriate cost to the population served
• A service experience, supported by systems and processes, that focuses on patients and their health

Advantages of Data Warehousing
• “Complete Data”
  – Disparate Systems
  – Legacy Systems
  – Community and/or Partner data
• Queries do not tax transactional systems
• Easy access to the data
• Concepts established in data

Prerequisites
• Identify and prioritize key processes (clinical, financial, administrative)
• Develop a best practice model for each process
• Define key indicators and outcomes measures for each process
• Understand and optimize the operations work flow (clinical, financial, administrative)

Metadata
• Data about data
• Descriptions and definitions of the elements in a database Examples:
  – Entrée description on a menu
  – Card catalog for a library
• What is included in the metadata for the following data structures?
  – A data mart
  – A table
  – A column

Solutions Platform
• Single database consisting predominantly of clinical data for 521,000 active patients in 7 states
  – Oregon, California, Washington, Ohio, Wisconsin, North Carolina, Alaska
• Patient Demographics
  • 91% <200% Federal Poverty Level
  • 43% uninsured/self-pay
  • 38% Medicaid
  • 37% racial/ethnic minority
  • 24.4% rural
  • 75.5% women and children
  • 85% of Oregon FQHC patients
• Updated nightly with latest clinical data
• Over 650 registered users

Members Using Solutions
• Meaningful Use Reporting
• Care Oregon CDCM Program Support
• Oregon RCC Quality Measures Reporting
• HRSA Total Care Quality (TCQ) Grant
- State of Oregon SBHC Reporting
- Diabetes/Depression Case Management

**Solutions Features**
- 108+ Metrics
- 19 Disease specific rosters
- Customizable reports
- Multi-Level Drill Down
  - Clinic, Department, Facility, Team, Provider, Patient
- Many filter criteria
- Pre-aggregated data for fast performance

**Areas of Focus**
- Population Management
  - Chronic Diseases
  - Prevention and Outreach
- Panel Management
- Operational Reporting
- Meaningful Use

**Diabetic Roster**
- Roster to support the management of diabetic populations
- Extensive set of data elements
Chronic Disease Care Management Roster

Custom Reports with My Reports
- Create and share your custom reports
Wide Variety of Metrics
- 108 metrics, 5 levels of aggregation each
- Time trending graphical representations
- Compare metrics at multiple levels simultaneously
- Full export capability
- Each metric clearly defined

Diabetic Patients with Meds

Provider: Sifirst Silast
Roster Total as Selected: 149

<table>
<thead>
<tr>
<th>Patient Name</th>
<th>Age</th>
<th>Sex</th>
<th>DM Dx</th>
<th>Last HbA1c Date</th>
<th>Last HbA1c</th>
<th>Last PC Visit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hlast, First</td>
<td>20</td>
<td>F</td>
<td>250.00</td>
<td>04/28/2010</td>
<td>12.0</td>
<td>04/29/2010</td>
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<td>52</td>
<td>F</td>
<td>250.00</td>
<td>04/28/2010</td>
<td>12.0</td>
<td>04/29/2010</td>
</tr>
<tr>
<td>Hlast, First</td>
<td>59</td>
<td>F</td>
<td>250.00</td>
<td>04/28/2010</td>
<td>12.0</td>
<td>04/29/2010</td>
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<td>Vlast, First</td>
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<td>250.00</td>
<td>04/28/2010</td>
<td>11.8</td>
<td>04/28/2010</td>
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<tr>
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<td>64</td>
<td>F</td>
<td>250.00</td>
<td>04/28/2010</td>
<td>11.8</td>
<td>04/28/2010</td>
</tr>
</tbody>
</table>
Sample Metric: HbA1c Testing Frequency
Scenario: Comparison of a single provider to their clinic organizations average

Numerator:
Adult patients 18 and older screened for depression within the last 12 months (PHQ 9 Score)

Denominator:
- Adult patients from the given provider’s panel
- Who had at least 1 visit to any primary care department for the last 12 months.
### Meaningful Use Reports

**Review Meaningful Use attainment, by provider, by measure**

#### Eligible Professional Meaningful Use Scorecard

**Core Set Criteria**

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</tbody>
</table>

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<th>Numerator</th>
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</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Incorporate clinical lab test results into a certified EHR as structured data</td>
<td>40%</td>
<td>30%</td>
<td>1100</td>
<td>1100</td>
<td>Patient</td>
</tr>
<tr>
<td>4</td>
<td>Send correspondence to patient before 65 or as younger than 3 for preventive follow-up care</td>
<td>20%</td>
<td>50%</td>
<td>900</td>
<td>900</td>
<td>Patient</td>
</tr>
<tr>
<td>5</td>
<td>Patient reviews their electronic access to their patient record</td>
<td>10%</td>
<td>50%</td>
<td>900</td>
<td>900</td>
<td>Patient</td>
</tr>
<tr>
<td>6</td>
<td>Patient receives patient-specific education material</td>
<td>10%</td>
<td>60%</td>
<td>1100</td>
<td>1100</td>
<td>Patient</td>
</tr>
</tbody>
</table>

#### EHR Capability Criteria - Yes/No Association

<table>
<thead>
<tr>
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<th>Objective</th>
<th>Target</th>
<th>YTD Target Met?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Drug-Drug and Drug-Allergy checks</td>
<td>YES</td>
<td>NA</td>
</tr>
<tr>
<td>2</td>
<td>Order Entry: use clinical decision support rules</td>
<td>YES</td>
<td>NA</td>
</tr>
<tr>
<td>3</td>
<td>Support quality measures to CMS</td>
<td>YES</td>
<td>NA</td>
</tr>
<tr>
<td>4</td>
<td>Capability to receive any clinical information electronically</td>
<td>YES</td>
<td>NA</td>
</tr>
<tr>
<td>5</td>
<td>Conduct or oversee a security risk analysis and implement security updates as necessary.</td>
<td>YES</td>
<td>NA</td>
</tr>
<tr>
<td>6</td>
<td>Implement deep financial checks</td>
<td>YES</td>
<td>NA</td>
</tr>
<tr>
<td>7</td>
<td>Implement the ability to identify and flag patients for specific conditions to use for quality improvement, reduction of inappropriate, research or outreach</td>
<td>YES</td>
<td>NA</td>
</tr>
<tr>
<td>8</td>
<td>Capability to submit electronic data to immunization registries or immunization information systems and actual submission in accordance with applicable state and local law</td>
<td>YES</td>
<td>NA</td>
</tr>
</tbody>
</table>

#### Meaningful Use Reports

**Core Set Criteria**

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**Year-To-Date Cumulative Monthly Totals**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Objective</th>
<th>Target</th>
<th>Jun 10</th>
<th>Jul 10</th>
<th>Aug 10</th>
<th>Sep 10</th>
<th>Oct 10</th>
<th>Nov 10</th>
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**YTD Calculation Details**

- **Meaningful Use Reports**

- **Eligible Professional Meaningful Use Scorecard**

- **EHR Capability Criteria - Yes/No Association**
Session description
This presentation will cover the basics of Telemedicine principles and best practices, in a framework for the Behavioral Health provider. Today’s topics include:

- History
- Pros/Cons
- Real World Applications
- Technology
- Administrative Concerns
- Readiness Assessment / First Steps

Section 1: Terminology and History

Terminology
- Telemedicine: is the delivery of any healthcare service or transmission of wellness information using telecommunications technology.
- Telehealth: used to encompass a broader definition of remote healthcare that does not always involve clinical services. Videoconferencing, transmission of still images, e-health including patient portals, remote monitoring of vital signs, continuing medical education and nursing call centers are all considered part of telemedicine and telehealth

History
1959 – University of Nebraska (two-way televisions)
1970’s – Funding Issues, limited screen quality, “bulky” equipment – decline in interest
1980’s – “Health Psychology” term coined and new attempts to integrate BH with medicine
1990’s – Significant increase in faster technology / improved equipment
2000’s – Payors begin to view more favorably as clinical benefits established & cost effectiveness demonstrated

Section 2: Pros and Cons
What challenges are most often cited as barriers in the delivery of Behavioral and Mental Health Care?

Access to Care:
- Location based
- Financial / insurance status
- Cultural / linguistic challenges

Access to Workforce:
- Rural areas / low population density areas
- Provider shortages
- Compensation / billing challenges, especially for safety net populations
Why Telehealth Today? (PROS)
- Improved Access to care
- Cost Efficiencies
- Patient Demand
- Improved Access to care
- Increased access to patients in distant / remote areas, and expanded reach for physicians and health facilities beyond their own offices
- Cost Efficiencies
- May reduce the cost of healthcare and increase efficiency through better management of chronic diseases, shared health professional staffing, reduced travel times, and fewer or shorter hospital stays.
- Patient Demand
- Using telemedicine technologies reduces travel time and related stresses to the patient.

Potential Con’s
- Must be careful to follow interstate licensing rules when applicable
- Clinicians may find it somewhat challenging to pick up on nonverbal cues (such as psychomotor agitation or poor hygiene)
- Quality / Cost of available equipment ranges widely – must consider all factors in selection
- Some technical hiccups will happen – who is available to support the clinician in the session to minimize impact to patient care
- Patient / client may not feel the empathy from the clinician that would be conveyed in a face to face encounter
- Some BH techniques are potentially less successful
- This modality potentially limits the type of patients one might select for care, or might require additional post-session coordination / support

What Clinicians are Offering Telehealth Now? Telepsychiatry
“Offers hope for addressing longstanding problems regarding work force shortages and access to care, especially in remote or rural areas.”

Emerging Best Practice
Telepsychiatry-based culturally sensitive collaborative treatment may help to expand access to culturally competent psychiatrists fluent in patients’ native languages and improve treatment of depressed minority patients in primary care settings

Other Clinicians
- Psychologists
- LCSWs
- Marriage / Family Therapists
- Substance Abuse Counselors
*Therapy has been successful utilizing telehealth throughout the life cycle

Section 3: Real World Applications
Real-World Applications Medicaid Pilot Telehealth Project – Rural Florida (early 2000’s)
- University of Florida / FQHC Partnership for Children
  o Equipment from prior successful medicine pilot used
  o Would it work for Behavioral Health?
Focused on Children & Adolescents
ADHD Protocols
Successes: Patient Satisfaction, Increased Access, Broader Reach
Cons: Equipment was not "real-time" (time delays)

• Health Under Guided Systems (HUGS) – Launched 2011
  - Sponsored by the Naples Children Education Foundation (NCEF)
  - Collaboration of key stakeholders in Collier County interested in Behavioral Health
  - Multi-sites utilize existing capacity at David Lawrence Community Mental Health Center
  - Also for Children & Adolescents
  - Traditional Telepsychiatry Model
  - Successes: Patient Satisfaction, Increased Access, Broader Reach, Improved technology allows real-time communication & clarity
  - Cons: Challenge to integrate EHRs

Other Programs in the News

Evolution of Services

TeleKidcare was originally designed to provide acute care to school children for sore throats, ear aches and similar ailments. Since its inception, the TeleKidcare model has shifted to provide primarily mental health services as parents and school nurses identified a gap in the availability of mental health services. TeleKidcare allows families to seek treatment in a familiar environment free from any cultural stigma toward mental health. Typical services now include assessing, treating, and managing a range of mental health concerns such as ADHD, depression and mood disorders, grief and adjustment reactions, and anxiety disorders.

TeleKidcare is a community-centered, collaborative effort to provide care for underserved school children. With the essential support of school district and administrators, the day-to-day involvement of the school nurse, and the expertise provided by KUMC doctors, TeleKidcare has conducted thousands of acute care and mental health consults using the latest video technologies.

*For More Information: Contact Dr. Eve-Lyn Nelson, enelson2@kumc.edu

**Major Finding:** Telepsychiatry consults reduced hospital admissions for mental health patients from about 12% to 8% at 25 hospitals in South Carolina, and shortened emergency department stays from an average of four to three days.

**Data Source:** Outcomes data for more than 6,000 telepsychiatry patients and matched controls.
Section 4: Technology

Technologies Typically Employed for Telehealth

- Store and Forward Technologies:
  - Email (Note: Clinical Validation / Payor Reimbursement still open issues)
  - TeleHome technologies
    - Internet-based systems that use a personal computer
    - In-home communication and monitoring devices
    - Cellular technologies

*Telemental Health Guide – The Center for Eliminating Mental Health Disparities, University of Colorado at Denver

- Most Commonly Associated: Live, Interactive Technologies
  - Telephone (sometimes referred to as “POTS” for “Plain Old Telephone System)
  - Video Teleconferencing (VTC)

Section 5: Administrative Concerns

“Home Turf” – Local Implementation Considerations

State by State Issues

- Potential Restrictions – Facility
- Potential Restrictions – Provider

Payor Considerations

- Medicare will pay for a limited number of Part B services that are furnished by a physician or practitioner to an eligible beneficiary via a telecommunications system. For eligible telehealth services, the use of a telecommunications system substitutes for a face-to-face, “hands on” encounter.
- Medicaid reimbursement for telehealth services by psychologists is available in as many as 13 states: Alaska, Arizona, California, Colorado, Hawaii, Kansas, Maine, Michigan, Nebraska, North Carolina, Oklahoma, Utah, and Virginia.
- Legislation requiring private sector insurance companies to pay for telehealth services in: California, Colorado, Georgia, Hawaii, Kentucky, Louisiana, Maine, New Hampshire, Oklahoma, Oregon, Texas, and Virginia. While all of these states mandate coverage, not all require reimbursement rates on par with rates for face-to-face services.

Section 6: Getting Started

Needs Assessment

- Legal Environment
- Local area challenges
- Provider availability
- Patient perspective / acceptance
- Technology
- Project Management
- Financial
- Billing

Site / Patient Readiness Assessment

A thorough evaluation of needs at a particular site is critical:

- Consider the patient’s clinical needs
- Potential benefits
• Potential costs
• What clinical support is available at the patient's site?
• What is the availability of follow-up care?

Criteria for Success

<table>
<thead>
<tr>
<th>Criteria for success</th>
</tr>
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<tbody>
<tr>
<td>1) Local health care service delivery problem is clearly stated</td>
</tr>
<tr>
<td>An effort is made to describe the local health-related challenges that the technology is intended to solve</td>
</tr>
<tr>
<td>2) Telemedicine is recognized as a benefit</td>
</tr>
<tr>
<td>A telemedical application is seen as a potential solution to the challenge (cf. Criterion 1)</td>
</tr>
<tr>
<td>3) Telemedicine is seen as a solution to medical and/or political issues</td>
</tr>
<tr>
<td>Equal access to health care is often a major concern, justifying the implementation of telemedicine</td>
</tr>
<tr>
<td>4) There is collaboration between promoters and users</td>
</tr>
<tr>
<td>Successful implementation depends on teamwork, involving the initiators of the technology as well as the managers, clinicians, and patients</td>
</tr>
<tr>
<td>5) Issues regarding organisational and technical arrangements are addressed</td>
</tr>
<tr>
<td>Successful implementations are often characterised by a sound anchoring in established organisations and technical structures, or by the establishment of new structures</td>
</tr>
<tr>
<td>6) The future operation of the service is considered</td>
</tr>
<tr>
<td>Plans for future use and for future financing are important to success</td>
</tr>
</tbody>
</table>

Recommendations
As with all advanced Health Information Technology projects, time spent in assessing, planning, and gaining local buy-in (especially from Clinician Champions and clients) is key to success.

Potential Funding Sources
Health Resources & Services Administration- (hrsa.gov/grants)
• Deadline – 10/31/2011: Rural Health Network Development Planning Grant
• Deadline Anticipated December 2011: Telehealth Network Grant Program

U S Department of Agriculture- (rurdev.usda.gov/UTP_DLT.html)
• Deadline Anticipated Spring 2012: RUS Distance Learning & Telemedicine

Resources
• American Telemedicine Association- www.americantelemed.org
• Telemental Health Guide, University of Colorado (Denver)- www.tmhguide.org
• The Telehealth Technology Assessment Center of the Alaska Native Tribal Health Consortium (ANTHC)- www.telehealthtac.org
• The National Center for PTSD- www ptsd.va.gov
• TeleMental Health Institute, Inc. (Training Webinars / Consulting)
  www.TelementalHealth.com
What is Health Information Exchange (HIE)?
Health information exchange (HIE) is the transmission of healthcare-related data among facilities, health information organizations (HIO) and government agencies according to national standards.

HIE is an integral component of the health information technology (HIT) infrastructure under development in the United States and the associated National Health Information Network (NHIN).

To meet requirements, HIE technology must enable reliable and secure transfer of data among diverse systems and also facilitate access and retrieval data. The purpose of HIE development is to improve healthcare delivery and information gathering.

Health Information Exchange for the Coordination of Care
Health Information Exchange is computer-based clinical communications for care coordination.

Clinical records are accessed through queries to the HIE, or sent directly to another physician through secure messaging.

HIE integrates records from a wide variety of health care sources and presents them in a longitudinal, integrated view for the treating physician.

HIE Relationship to EMR
• A service that exchanges secure information which occurs across institutional and business boundaries.
• Information follows the patient; appropriate information is available to improve coordination, efficiency, and quality of care (ONC).
• A system clinicians use to input, communicate, retrieve, analyze clinical data and care for the patient.
• Used within provider settings; a source of patient data to the HIE.
• The EMR may be populated by data from a HIE

Section 1: Implementing a Health Information Exchange in South Florida
South Florida Regional Extension Center-
Composed of Community Stakeholders

The South Florida Regional Extension Center (REC) is taking the lead in developing a Health Information Exchange in South Florida to connect hospitals, clinics and doctor’s offices in a regional health information network.

The HIE for South Florida will be rolled out in several stages beginning with secure e-mail, followed by record query services to facilitate locating patient records from the network.
Stage 1: Secure Messaging

In Stage 1, secure messaging will replace the fax machine, enabling physicians to send a secure, encrypted e-mail to other physicians directly.

Nationwide Health Information Network (NwHIN) Direct Secure Messaging Platform

NHIN Direct – Endpoint to Endpoint (Routed Messages)

Dr. D. Source
Send Patient Information
Dr. D. Destination
Deliver Patient Information

NHIN Direct
HISP Routing Directory
Route Patient Information

HISP A
Conversion: transport, trust, metadata
Submit Documents

HISP B

NHIN Gateway A
NHIN Gateway B

Clinical Data Source

Programs
CMS - Quality
CMS - Care Coord
CMS - Eligibility
CDC - Pub Health
States – Immunization Reg

Clinical Data Repository

NHIN Exchange - Node to Node (Targeted Messages)

NHIN Exchange
Service Registry & Managed PKI
Secure Messaging
The NwHIN Direct secure messaging platform was developed by the Office of the National Coordinator for HIT and is available from Harris Healthcare Solutions, the state HIE technology vendor, at no cost to the physician.

Many EHRs offer secure messaging applications but these vendor-based applications cannot communicate with the other EHR systems.

South Florida REC is planning to develop a secure messaging hub to create interoperability among EHR systems, based on the Direct standards.

Regional Health Information Exchange
The next stage of developing the HIE for South Florida will be to develop a Regional HIE that serves as a network of networks to connect hospitals that have their own hospital-based HIEs.

The South Florida REC plans to leverage the Atlantic Coast HIE infrastructure to develop connectivity across the hospital HIEs and other networked entities such as the Federally Qualified Health Centers to make data exchange possible.

The Regional HIE will provide connectivity across the eight counties of the SFREC.

Community-based HIE
A final stage will be to create a Community HIE designed to leverage the adoption of EHRs in physicians’ offices and to connect them to the HIE network to access patient records.

A significant use case is in the Emergency Department (ED) where a patient comes in without records.

The ability to send a record request to the Community HIE allows the ED physician to find vital, time sensitive information on the patient, and provide more informed care.
Emergency Department HIE Use Case

Emergency Department physicians need to obtain accurate, timely information on a patient to deliver the most appropriate care and treatment.

Patient presents with past medical history, treatment from other physicians or disease states that are not be available to the treating physician.

Governance from the Health Information Exchange Workgroup

The South Florida REC has initiated an HIE Workgroup to help guide the development of a Health Information Exchange in South Florida.

The HIE Workgroup brings together health care leaders from across the South Florida REC region to build consensus on the best way to integrate Community and local Hospital HIEs into the Regional HIE for South Florida.

South Florida Health Information Exchange
Section 2: HIE

Why HIE?
- Efficiencies & quality of care improvements for physicians:
  - Faster delivery of results = quicker attention to patient problems
  - Keep Mental Health Centers ahead of curve in EHR adoption
  - Less time spent by staff looking for results = lower admin costs
  - Fewer missed results = fewer medical errors
  - Standard format for all results
- Value Components for Hospitals
  - Hospitals do not have to establish separate connections for physicians to log on to hospital information systems.
  - Hospitals do not have to develop and maintain interfaces from hospital to physician office to mental health center
  - Hospitals do not have to maintain as many fax servers and lines.

Challenges with HIE
- State regulations & requirements across various sections of statute (State Mental Health Programs, Substance Abuse Treatment etc.)
- Many behavioral health providers not eligible for Meaningful Use
- Small and financially vulnerable rural providers may tend to feel threatened by provider organizations large enough to have the resources necessary to be helpful.
- Tracking specified consent difficult in hub-and-spoke HIE
- Concerns about the privacy and confidentiality of patients’ Mental Health information.
- Ability to identify patients reliably across multiple information systems.
- Financial incentives do not encourage information sharing.
- Who OWNS the data?
- How do we pay for this? Access to capital limited for behavioral healthcare providers.

Lessons Learned Thus Far
- Small hospitals have a difficult time providing even minimal time to efforts outside their immediate domain.
- The need to share information for care and respect patients’ privacy is an ongoing challenge.
- Use of any system must be integral to the care process.
- Leadership and commitment are key.

HIT Today - Behavioral Health and Substance Abuse Providers
- Of 175 substance abuse treatment programs surveyed, 20 percent had no information systems, e-mail, or even voicemail.
- On average, information technology (IT) spending in behavioral health care and human services organizations represents 1.8 percent of total operating budgets—compared with 3.5 percent of the total operating budgets for general health care services.
- Fewer than half of behavioral health and human services providers possess fully implemented clinical electronic record systems.
- State and Territorial laws vary on the extent that providers can share medically sensitive information, such as HIV status and treatment for psychiatric conditions.

A study of 56 mental health clinicians in an academic medical center revealed that their concerns about privacy and data security were significant and may contribute to the reluctance to adopt electronic records.
**Patient Consent – Data Exchange**
Opt In – obtain advance consent from consumers to include their health information in an HIE

Opt Out – patients are automatically considered part of the data exchange unless they request not to have their health information in an HIE

The Patient Consent Model is state specific

**Health Information Exchange**
Funding- HIEs have historically had significant challenges with sustainability due to funding.

Options:
- Federal / State Funding
  - Initial start-up costs covered
  - Feasibility of funds remaining available
- Private Investors
  - Fiscal stability of investors is key
- Insurance Payers
  - Strong concerns with use of collected data
- Transaction or Subscription based
  - Dependent on provider acceptance and compliance

**Frequently Asked Questions**
Applying the Substance Abuse Confidentiality Regulations to Health Information Exchange (HIE)- http://www.samhsa.gov/healthprivacy/docs/EHR-FAQs.pdf
Resources

1. **Organizational Assessment Checklist** – This tool assists the organization to determine its readiness for implementing an EHR. This is found on the HRSA web site at [http://www.hrsa.gov/healthit/toolbox/HIVAIDSCaretoolbox/SelectionAndImplementation/hwoiknwifready.html](http://www.hrsa.gov/healthit/toolbox/HIVAIDSCaretoolbox/SelectionAndImplementation/hwoiknwifready.html)

2. **An Eligible Professional Worksheet** – this tool assist a provider to determine their eligibility for participation in the Meaningful Use Incentive Program. This is found on the CMS web site at: [http://www.cms.gov/EHRIncentivePrograms/15_Eligibility.asp#TopOfPage](http://www.cms.gov/EHRIncentivePrograms/15_Eligibility.asp#TopOfPage)

3. **Eligible Professional Contract Language for Organizations** – This Issue Brief provides some sample contract language that organizations can use in their provider contracts to assist in providers assigning their Meaningful Use Incentive funds to the organization. NACHC prepared an Issue Brief on this topic and it is available on their web site at [http://www.nachc.com/regulatory-issues.cfm](http://www.nachc.com/regulatory-issues.cfm), the name of the document is 11-1-11 Medicare and Medicaid Electronic Health Record Incentives: Reassigning Payments

4. **Eligible Professional Registration Walk Through** – this provides instructions as to how a provider registers with CMS to receive Meaningful Use Incentives. This is found on the CMS web site at: [http://www.cms.gov/EHRIncentivePrograms/20_RegistrationandAttestation.asp#TopOfPage](http://www.cms.gov/EHRIncentivePrograms/20_RegistrationandAttestation.asp#TopOfPage)

5. **ONC EHR Certification ID information** – this allows you to look up vendors by vendor name, product name or certification number to determine if a product is Meaningful Use Certified. This is found on the ONC web site at: [http://onc-chpl.force.com/ehrcert](http://onc-chpl.force.com/ehrcert)

6. **HRSA EHR Selection Guidelines** – this tool assists a provider or organization to identify the key elements of an HER that are important to the provider and/or organization. This tool can then be used to evaluate various EHRs. This can be found at: [www.hrsa.gov/healthit/ehrguidelines.html](http://www.hrsa.gov/healthit/ehrguidelines.html)

7. **EHR Implementation Project Plan** – This tool provides a SAMPLE Project Plan for an EHR Implementation and can be used by a provider or an organization. It is available in a Microsoft Project version and a Microsoft Excel Version. They can be found at: [http://www.integration.samhsa.gov/hitgrantees](http://www.integration.samhsa.gov/hitgrantees)

8. **Meaningful Use Gap Analysis Tool** – This tool assists providers and/or organizations to identify gaps in their ability to meet Meaningful Use Criteria. This can be found at: [http://www.nachc.com/meaningfuluseofhit.cfm](http://www.nachc.com/meaningfuluseofhit.cfm)