ESSENTIALS FOR HEALTH REFORM: Using Networks to Implement and Improve EHRs and other HIT
Behavioral Health providers are being challenged to adopt health information technology with very limited resources. There is a need to prepare for increased numbers of patients receiving health insurance benefits, requirements for electronic billing, data exchange among treating providers and an ever increasing need to collect and use health information to improve care.

These intense one day seminars will provide attendees with the necessary information to move forward in adopting, acquiring and implementing electronic health records and other health information technology. Presenters will review the various stages of implementation from initial planning and assessment through advanced topics such as data warehousing. There will be a focus on utilizing networks of care to build on economies of scale. Participants will leave with a thorough understanding of where they are in the process, and a plan for next steps in their health information technology implementation efforts.

These seminars are a collaborative work of NIATx, SAAS and The National Council supported by SAMHSA.
Topics include:

- Overview of the CMS Rule on Medicare and Medicaid Incentive Payments
- Practice Management Systems vs EHRs
- Benefits & Economies of Scale when working with a Network
- HIT Planning and Assessment Process
- HIT Workflow Redesign
- Due Diligence and Vendor Negotiations
- EHR Selection and Implementation
- Disaster Recovery and Business Continuity Planning
- Data Warehousing
- Use of Telemedicine
- Health Information Exchange and Behavioral Health
Data Warehousing
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**

The psychological perception of learning, reasoning, 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

\(^1\) IT Tools for Chronic Disease Management: How Do They Measure Up?
Read more: California Health Care Foundation
Integrated Reporting and Analysis

A single source for complex data analysis and reporting
Logical Architecture
Conceptual Technical Architecture
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 (Jun-11)

• 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

#### Filtering Options
- Next PC Visit Date
- Last Diabetic BP Reading
- Primary Payor

#### Export Options
- PDF
- Excel
- Mailing Label

#### Service Area: Virginia Garcia Memorial Hc
Roster Total as Selected: 193

---

#### Diabetes Care Management

<table>
<thead>
<tr>
<th>MBR</th>
<th>Current PCP</th>
<th>Next PC Visit</th>
<th>Diabetes Care Manager</th>
<th>Current Diabetes Care Mgmt Level</th>
<th>Prior Diabetes Care Mgmt Level</th>
<th>Graduation Date</th>
<th>Last HbA1C Date</th>
<th>Last HbA1C</th>
<th>Last BP Date</th>
<th>Last BP</th>
<th>Primary Payor</th>
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<tbody>
<tr>
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<td>Messi, Susan</td>
<td>-</td>
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<td>Diabetes Care Mgmt Participating</td>
<td>Diabetes Independent</td>
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<td>7.4</td>
<td>08/05/2010</td>
<td>&lt;12.0%</td>
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<td>COREGION MEDICAID</td>
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<td>07/06/2010</td>
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<td>07/05/2010</td>
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<td>08/03/2010</td>
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<td>11/04/2010</td>
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<td>08/03/2010</td>
<td>10.4</td>
<td>11/01/2010</td>
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<td>-</td>
<td>Dobbs, Ron</td>
<td>Diabetes Care Mgmt Participating</td>
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<td>08/03/2010</td>
<td>8.3</td>
<td>11/02/2010</td>
<td>&lt;16.9%</td>
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<td>Preciado, Pnola</td>
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<td>-</td>
<td>Diabetes Care Mgmt Participating</td>
<td>-</td>
<td>09/05/2010</td>
<td>7.4</td>
<td>11/03/2010</td>
<td>&lt;11.7%</td>
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<td>-</td>
<td>-</td>
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<td>10/05/2010</td>
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<td>05/07/2010</td>
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<td>Cleary, Marina</td>
<td>-</td>
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<td>Diabetes Care Mgmt Participating</td>
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<td>04/01/2010</td>
<td>8.3</td>
<td>04/21/2010</td>
<td>&lt;12.9%</td>
<td></td>
<td>COREGION MEDICAID</td>
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</table>
Custom Reports with My Reports

- Create and share your own 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

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
Sample Metric: HbA1c Testing Frequency

Scenario: Comparison of a single provider to their clinic organizations average
Meaningful Use Reports

Review Meaningful Use attainment, by provider, by measure

### Eligible Professional Meaningful Use Scorecard

#### Core Set Criteria

<table>
<thead>
<tr>
<th>Core Set Criteria</th>
<th>Objective</th>
<th>Target</th>
<th>YTD Average</th>
<th>Numerator</th>
<th>Denominator</th>
<th>Yrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CPOE for medication orders by an authorizing provider</td>
<td>50%</td>
<td>50%</td>
<td>600</td>
<td>1100</td>
<td>Patients</td>
</tr>
<tr>
<td>3</td>
<td>Generate and transmit permissible prescriptions electronically (eRx)</td>
<td>40%</td>
<td>25%</td>
<td>333</td>
<td>1100</td>
<td>Orders</td>
</tr>
<tr>
<td>4</td>
<td>Record demographics</td>
<td>50%</td>
<td>40%</td>
<td>763</td>
<td>1100</td>
<td>Patients</td>
</tr>
<tr>
<td>5</td>
<td>Maintain active problem list</td>
<td>80%</td>
<td>80%</td>
<td>946</td>
<td>1100</td>
<td>Patients</td>
</tr>
<tr>
<td>6</td>
<td>Maintain active medication list</td>
<td>80%</td>
<td>80%</td>
<td>979</td>
<td>1100</td>
<td>Patients</td>
</tr>
<tr>
<td>7</td>
<td>Maintain active medication allergy list</td>
<td>80%</td>
<td>80%</td>
<td>979</td>
<td>1100</td>
<td>Patients</td>
</tr>
<tr>
<td>8</td>
<td>Record and chart changes in vital signs</td>
<td>50%</td>
<td>40%</td>
<td>912</td>
<td>1100</td>
<td>Patients</td>
</tr>
<tr>
<td>9</td>
<td>Record smoking status for patients 13 years old and older</td>
<td>50%</td>
<td>50%</td>
<td>819</td>
<td>1100</td>
<td>Patients</td>
</tr>
<tr>
<td>10</td>
<td>Provide electronic copy of patient’s chart within 3 business days of request</td>
<td>50%</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>Requests</td>
</tr>
<tr>
<td>11</td>
<td>Provide clinical summaries to patients for each office visit</td>
<td>50%</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>Visits</td>
</tr>
</tbody>
</table>

#### Measure Set Criteria

<table>
<thead>
<tr>
<th>Measure Set Criteria</th>
<th>Objective</th>
<th>Target</th>
<th>YTD Average</th>
<th>Numerator</th>
<th>Denominator</th>
<th>Yrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>Incorporate clinical lab test results into a certified EHR as structured data</td>
<td>40%</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>Orders</td>
</tr>
<tr>
<td>40</td>
<td>Send reminders per patient preference to patients 65 or older or younger than 5 for preventive follow-up care</td>
<td>20%</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>Patients</td>
</tr>
<tr>
<td>51</td>
<td>Patients receive timely electronic access to their patient record</td>
<td>10%</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>Patients</td>
</tr>
<tr>
<td>61</td>
<td>Patients receive patient specific educational resources</td>
<td>10%</td>
<td>5%</td>
<td>484</td>
<td>1100</td>
<td>Patients</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Measure</th>
<th>Objective</th>
<th>Target</th>
<th>YTD Target Met?</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Drug Dose and Drug Allergy checks</td>
<td>YES</td>
<td>N/A</td>
</tr>
<tr>
<td>10</td>
<td>Lunchbreak care clinical decision support rule</td>
<td>YES</td>
<td>N/A</td>
</tr>
<tr>
<td>11</td>
<td>Report quality measures to CMS</td>
<td>YES</td>
<td>N/A</td>
</tr>
<tr>
<td>14</td>
<td>Capability to exchange key clinical information electronically</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>15</td>
<td>Conduct or review a security risk analysis and implement security updates as necessary</td>
<td>YES</td>
<td>N/A</td>
</tr>
<tr>
<td>20</td>
<td>Implement drug-formulary checks</td>
<td>YES</td>
<td>N/A</td>
</tr>
<tr>
<td>25</td>
<td>Generate lists of patients by specific conditions to use for quality improvement, reduction of duplicity, research or outreach</td>
<td>YES</td>
<td>N/A</td>
</tr>
<tr>
<td>94</td>
<td><em>Capability to extract electronic data to immunization registers or Immunization Information Systems and actual submission in accordance with applicable law.</em></td>
<td>YES</td>
<td>N/A</td>
</tr>
</tbody>
</table>
# Meaningful Use Reports

<table>
<thead>
<tr>
<th>Core Set Criteria</th>
<th>Objective</th>
<th>Target</th>
<th>YTD Average</th>
<th>Year-To-Date Cumulative Monthly Totals</th>
<th>YTD Calculation Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CPCE for medication orders by an authorizing provider</td>
<td>30%</td>
<td>64%</td>
<td>Jan-10: 64% Feb-10: 55% Mar-10: 60% Apr-10: 61% May-10: 62% Jun-10: 62% Jul-10: 63% Aug-10: 63% Sep-10: 62% Oct-10: 62% Nov-10: 62% Dec-10: 64%</td>
<td>Numerator: 629 Denominator: 1100 Type: Patients</td>
</tr>
<tr>
<td>5</td>
<td>Maintain active problem list</td>
<td>83%</td>
<td>86%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Maintain active medication list</td>
<td>81%</td>
<td>89%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Maintain active medication allergy list</td>
<td>81%</td>
<td>89%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Record and chart changes in vital signs</td>
<td>50%</td>
<td>83%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Record smoking status for patients 13 years old and older</td>
<td>50%</td>
<td>74%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12†</td>
<td>Provide electronic copy of patient’s chart within 3 business days of request</td>
<td>50%</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Provide clinical summary to patients for each office visit</td>
<td>30%</td>
<td>24%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**
- **CPCE:** Controlled Substance Prescription Event Count
- **eRx:** Electronic Prescription
- **YTD:** Year-To-Date
- †: Indicating a special note or criteria.
Questions
Our Footprint

- 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
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

www.CHCAliance.org
Health Center Controlled Network
Est. 1999

www.AdvanceHealthIT.org
Regional Extension Center
Est. 2010
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)

“Meaningful” Users of EHR Since 2005

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)