

ESSENTIALS FOR HEALTH REFORM: Using Networks to Implement and Improve EHRs and other HIT



NATIONAL COUNCIL
FOR COMMUNITY BEHAVIORAL HEALTHCARE

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:

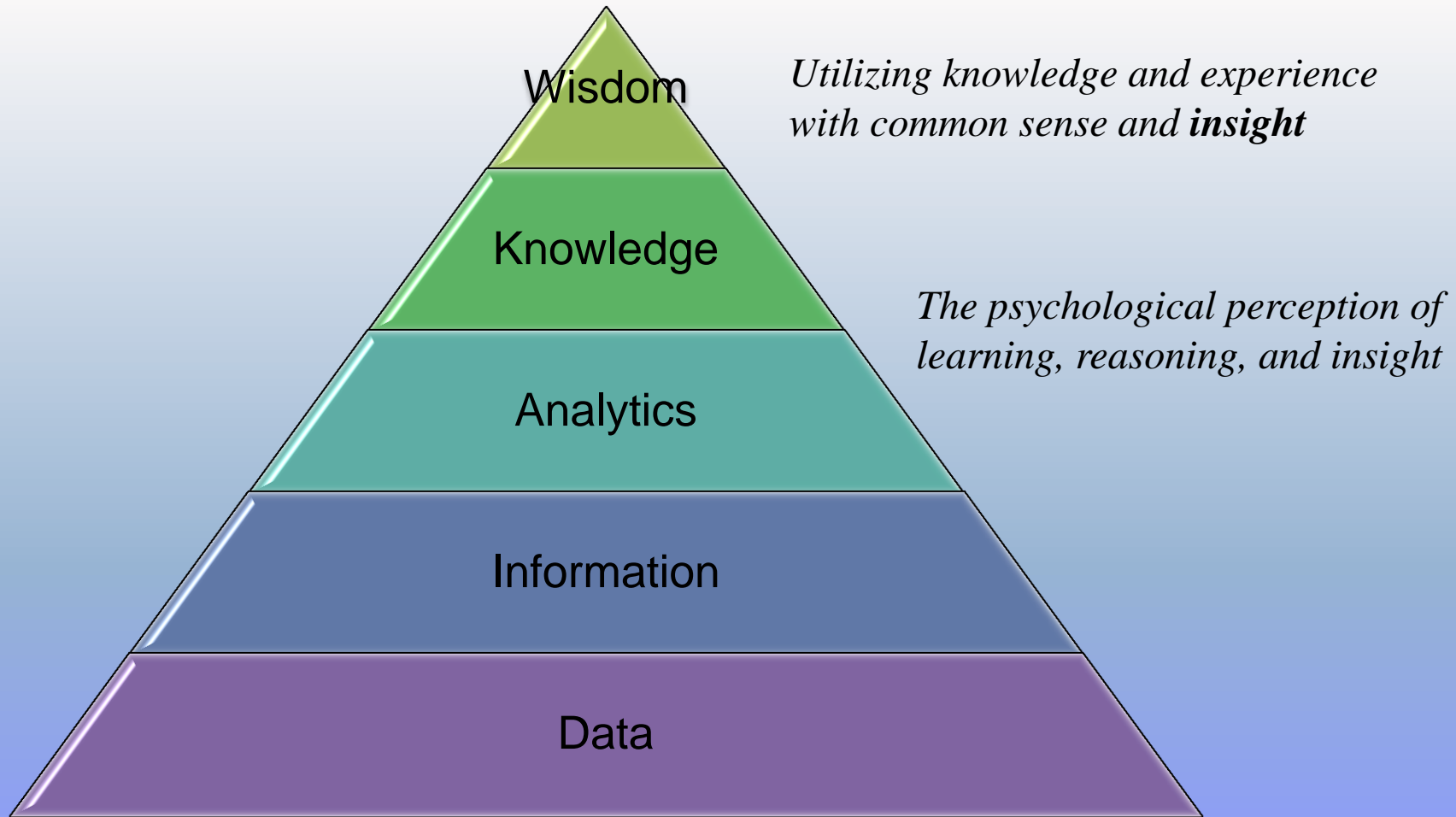
- **Overview of the CMS Rule on Medicare and Medicaid Incentive Payments**
- **Practice Management Systems vs EHRs**
- **Benefits & Economies of Scale when working with a Network**
- **HIT Planning and Assessment Process**
- **HIT Workflow Redesign**
- **Due Diligence and Vendor Negotiations**
- **EHR 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

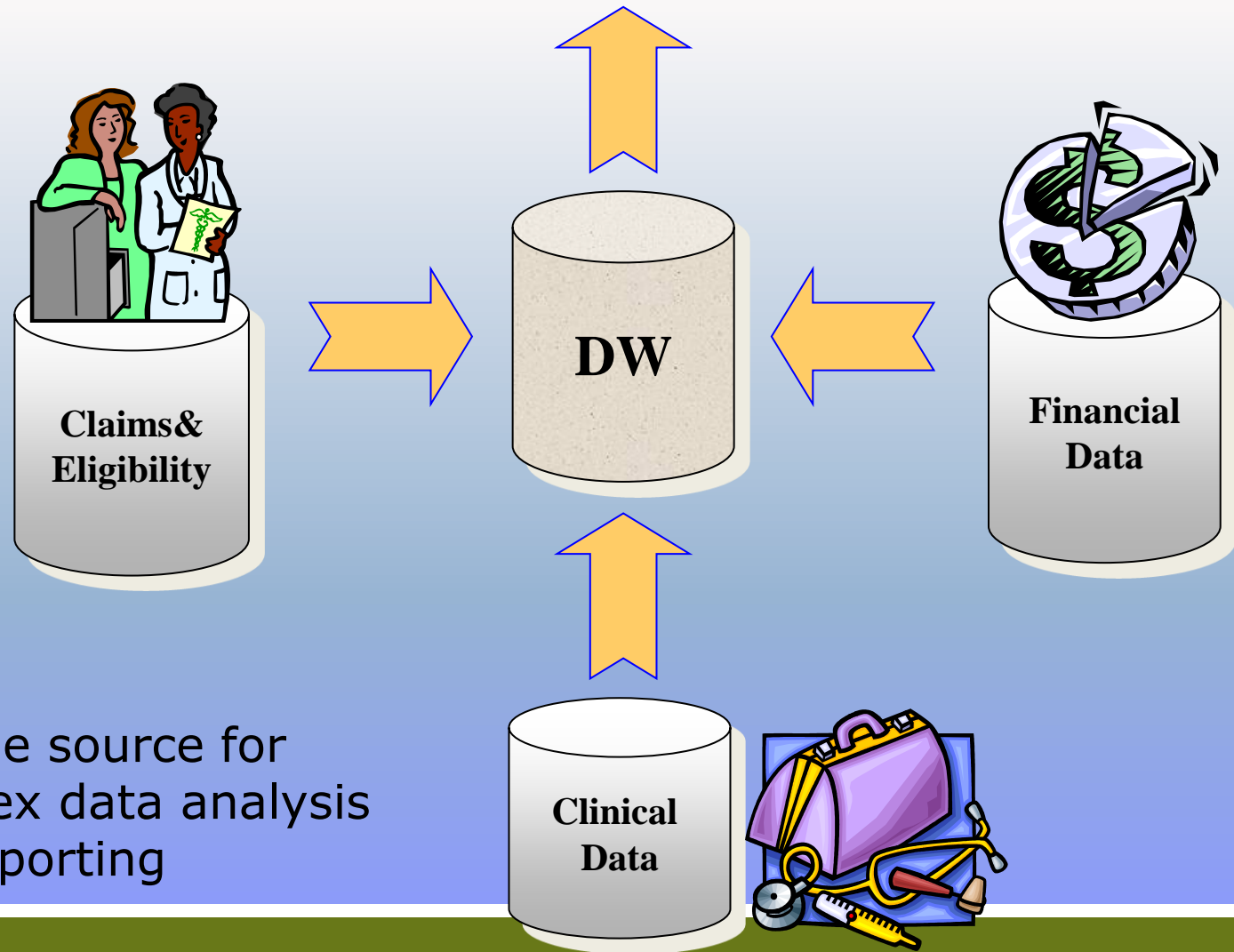
Quest for Wisdom



EHRs vs Chronic Disease Management Systems vs Data Warehousing

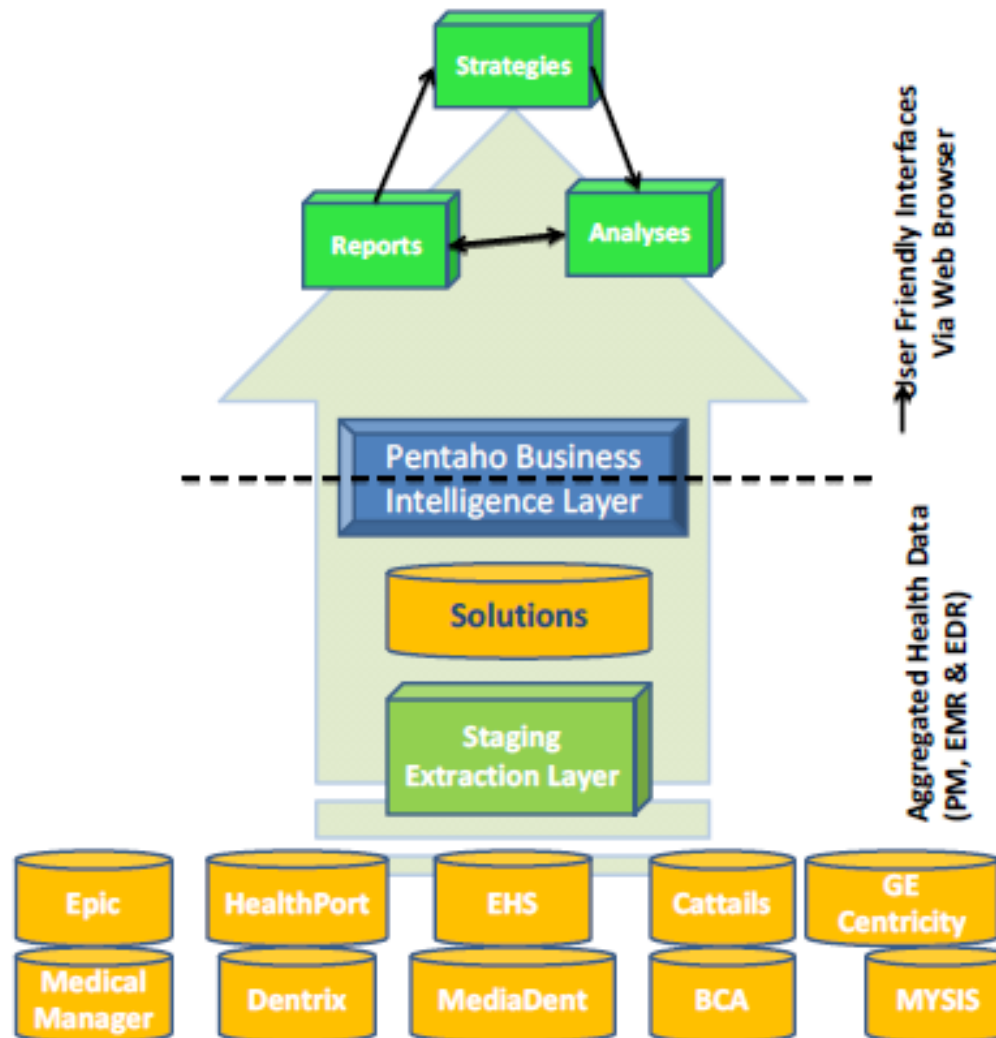
- EHRs have yet to measure up to Chronic disease management systems ¹
- EHRs that are not integrated with PM systems do not provide complete metrics
- CDMS do not provide effective point of care clinical decision support
- In larger systems disparate systems need to be connected for effective system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

Integrated Reporting and Analysis

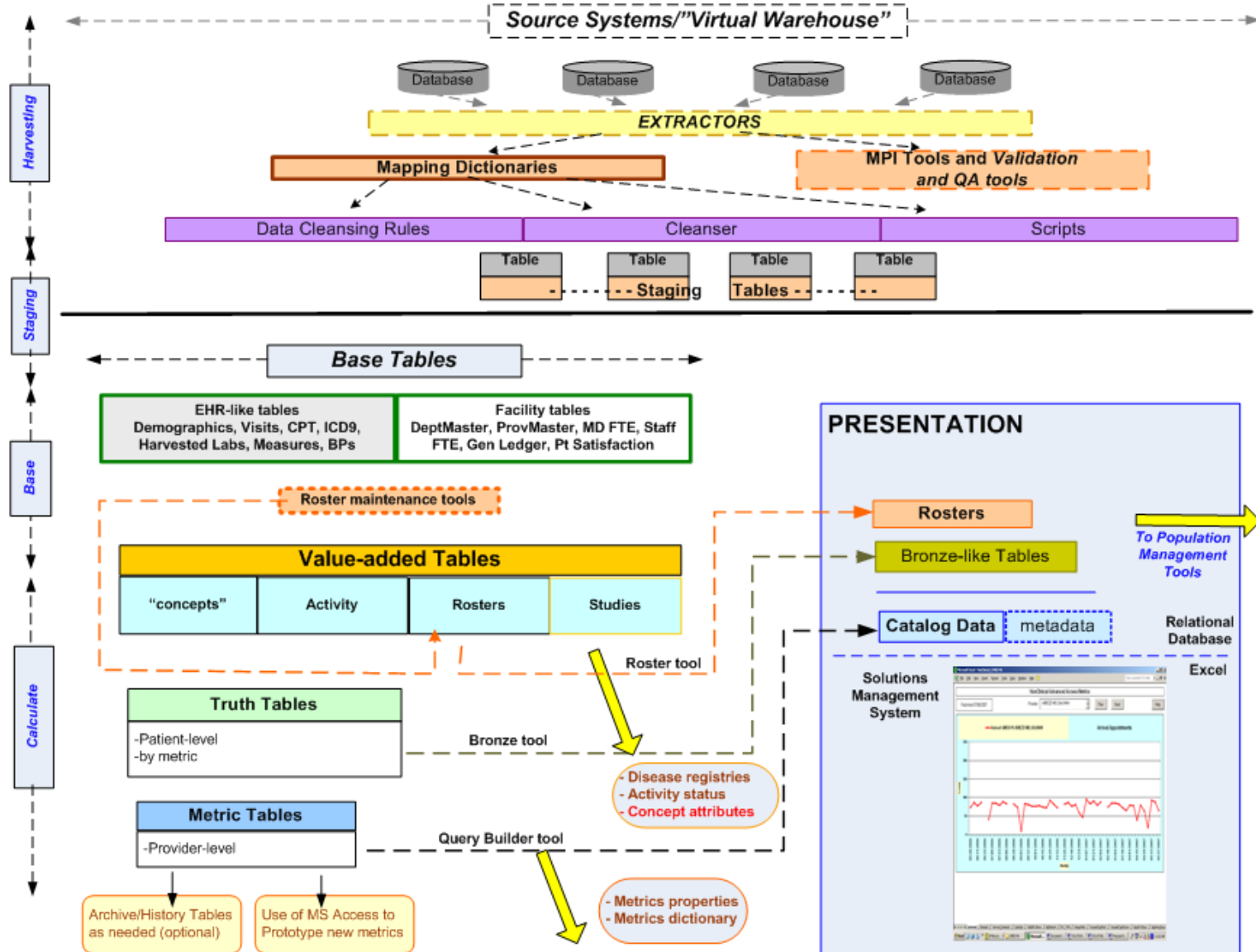


A single source for complex data analysis and reporting

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

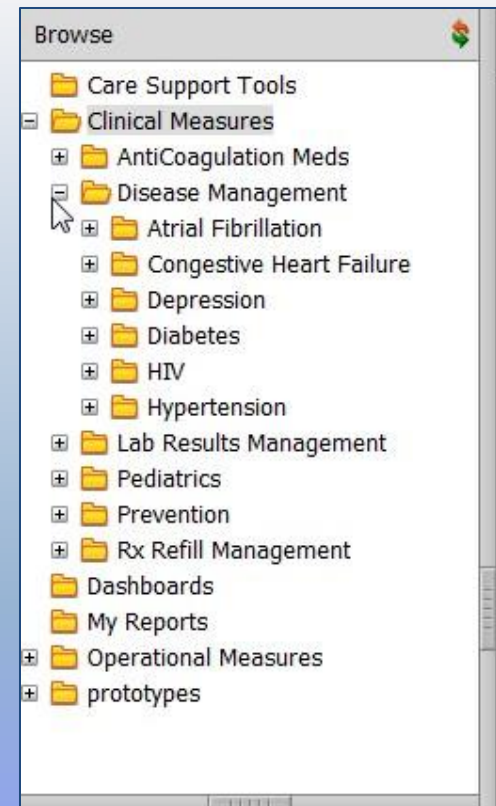
Solutions Features

- 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

Universe(Click To Open/Close):

By Service Area

- Departments - click for list of Departments
- Providers - click for list of Providers

My Panel

Filtering Options(Click To Open/Close):

- Sex M F None
- Patient assigned to other SA PCP Y N None
- Last LDL Date
- Hypertension Y N None
- Last HbA1C Date
- Next PC Visit Date
- Last LDL
- Last PC Visit in months no more than
- Age in years
- Last PHQ9 Score
- Last Lipid Rx Date
- Last Foot Exam Date
- Last BP Date
- # PC Visits within 12m
- HbA1c outside and
- Last PC Visit Date

Export Options(Available when Roster Total < 20000):

Patients with Diabetes

Provider: Sfirst Slast
Roster Total as Selected: 149

Click on the column header to sort.

MRN	Patient Name	Sex	Birth Date	Age	Current PCP	Other SA PCP	Case Manager	Diabetes Care Manager	Last PHQ2 Answer	Last PHQ9 Score	Last Depression Screen	DM Dx	Last HbA1C ^{1c}	Last HbA1C Date	Last BP	Avg of 3 BPs in 12m	Last BP Date	Last HDL Date	Last HDL Value	Last LDL	Last LDL Date	Last ACE Rx Date	ACE Now?	Last ARB Rx Date	ARB Now?	
1	R99999	MLast,First	F	03/27/1982	28	leLast,ohFirst	N	Unassigned Case Manager	Unassigned Diabetes Care Manager	-	-	-	250.00	13.0	04/29/2010	<113/74>	<110/72>	04/29/2010	04/30/2010	33.0	-	-	-	N	-	N
2	R99999	RLast,First	F	03/24/1958	52	leLast,ohFirst	N	Unassigned Case Manager	Unassigned Diabetes Care Manager	-	-	-	250.00	13.0	10/30/2009	<138/64>	<144/69>	11/20/2009	10/31/2009	51.0	187.0	10/31/2009	-	N	-	N

Chronic Disease Care Management Roster

Universe(Click To Open/Close):

- Organization/Service Area - click for list of Organizations/Service Areas
- Departments - click for list of Departments
- Providers - click for list of Providers

- Vgfg School Based
- Vgmhc Cornelius Primary Care
- Vgmhc Tigard School Based
- Vgmhc Beaverton Primary Care
- Vgmhc Hillsboro Primary Care
- Vgmhc Yamhill County Primary Care

Clear Universe

Filtering Options(Click To Open/Close):

- Next PC Visit Date
- Last Diastolic BP Reading
- Primary Payor

- Diabetes Care Manager
- Last Systolic BP Reading

Get Data Clear Filters

Export Options(Available when Roster Total < 20000):

PDF Excel Mailing Label

[To sort report by more than one column at a time, click here](#)

Prev 1/2 Next

Diabetes Care Management

Service Area: Virginia Garcia Memorial Hc

Roster Total as Selected: 193

Click on the column header to sort.

	MRN	Current PCP	Next PC Visit	Diabetes Care Manager ^{1st}	Current Diabetes Care Mgmt Level	Prior Diabetes Care Mgmt Level	Graduation Date	Last HbA1C Date	Last HbA1C	Last BP Date	Last BP	Primary Payor
1	10	Kass, Susan	-	Palmieri, Jane	Diabetes Care Mgmt Participating	Diabetes Usual Care		08/26/2010	7.4	08/26/2010	<122/82>	CAREOREGON MEDICAID
2	24	Perkins, Dabra	-	Marnell, Evita	Diabetes Care Mgmt Participating	-		07/30/2010	7.7	08/27/2010	<121/70>	MEDICARE CAREOREGON
3	103	Holles, Gregory	-	Long, Kimberly	Diabetes Care Mgmt Participating	-		07/09/2010	9.4	09/03/2010	<128/60>	MEDICARE CAREOREGON
4	407	Yoman, Jill r.	-	Long, Kimberly	Diabetes Care Mgmt Participating	-		11/04/2010	8.2	11/04/2010	<120/80>	CAREOREGON MEDICAID
5	41	Yoman, Jill r.	11/10/2010	Long, Kimberly	Diabetes Care Mgmt Participating	-		08/03/2010	10.4	11/01/2010	<140/80>	CAREOREGON MEDICAID
6	409	Yoman, Jill r.	-	Dallas, Ruth	Diabetes Care Mgmt Participating	-		09/20/2010	8.8	11/03/2010	<165/82>	CAREOREGON MEDICAID
7	410	Preciado, Phyllis	-	-	Diabetes Usual Care	-		09/01/2010	7.4	11/03/2010	<112/72>	CAREOREGON MEDICAID
8	406	Lemon, Ellen	-	-	Diabetes Care Mgmt Participating	-		10/25/2010	6.9	09/07/2010	<118/80>	CAREOREGON MEDICAID
9	40	Oleary, Maura	-	-	Diabetes Care Mgmt Participating	-		04/21/2010	8.3	04/21/2010	<126/84>	CAREOREGON MEDICAID

Custom Reports with My Reports

- Create and share your own custom reports

The screenshot shows the 'Custom Report Maker' window. The 'Title(required):' field contains 'Patients with Diabetes'. The 'Description(required):' field contains 'This panel was created by OCHIN to quickly and easily track populations with Diabetes.' The 'Share with your service area?' checkbox is checked. Below this, there are instructions: 'To change the order of the columns in your panel, first Left click and hold the mouse button. Then drag the column up or down.' A list of fields with 'Show' and 'Hide' radio buttons is visible, including MRN, Patient Name, Sex, Birth Date, Age, Current PCP, Other SA PCP, Case Manager, Diabetes Care Manager, Last PHQ2 Answer, Last PHQ9 Score, DM Dx, Last HbA1C, Last HbA1C Date, Last Depression Screen, Last BP, Last BP Date, and Last Foot Exam Date.



The screenshot shows the report preview interface. At the top, it says 'Patients Diagnosed.. DM HbA1c Frequency My Reports (2)'. There are buttons for 'Clear Universe', 'Get Data', and 'Clear Filters'. Below this are 'Filtering Options' with dropdowns for 'Age in years', 'Last HbA1c Date', and 'Last PC Visit in months'. There are also radio buttons for 'Sex' (M, F, None) and dropdowns for 'HbA1c' and 'Last PC Visit Date'. Below the filters are 'Export Options' for PDF, Excel, and Mailing Label. A message says 'Please make a selection from the universe above.' with 'Prev', '1/2', and 'Next' buttons. The report title is 'Diabetic Patients with Meds'. The provider is 'Stfirst Stlast' and the roster total is 149. Below this is a table with 7 columns: Patient Name, Age, Sex, DM Dx, Last HbA1C^{1st}, Last HbA1C Date, and Last PC Visit.

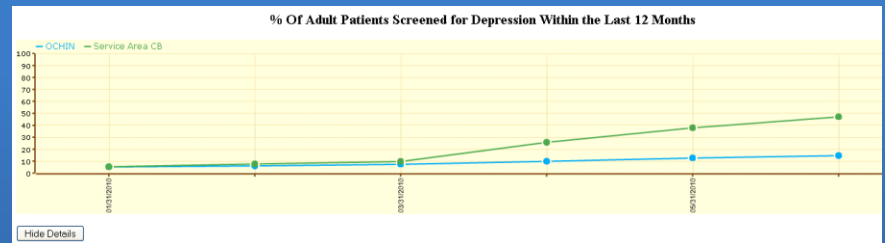
	Patient Name	Age	Sex	DM Dx	Last HbA1C ^{1st}	Last HbA1C Date	Last PC Visit
1	MLast,First	28	F	250.00	13.0	04/29/2010	04/29/2010
2	RLast,First	52	F	250.00	13.0	10/30/2009	11/20/2009
3	MLast,First	59	F	250.00	12.5	06/28/2010	08/06/2010
4	VLast,First	47	F	250.02	12.0	05/26/2010	07/06/2010
5	SLast,First	73	F	250.00	11.9	04/13/2010	04/19/2010
6	PLast,First	40	M	250.00	11.9	06/25/2008	06/27/2008
7	SLast,First	64	F	250.00	11.8	04/15/2010	05/06/2010

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

The screenshot shows a software interface for 'My Reports' with the following components:

- Browse:** A tree view containing categories like Clinical Measures, Disease Management, Diabetes, and My Reports.
- Files:** A list of reports including 'DM HbA1c Frequency'.
- Universe (Click to Open/Close):** A list of selection criteria such as 'All OGHIN Member Organizations', 'Organization Service Area', 'State', 'Physical Site', 'Department', and 'PCP'.
- Date Range:** A date picker with 'Start: 01/01/2009' and 'End: 06/30/2010'.
- Metric (Click to Open/Close):** Radio buttons for '% Of Patients Diagnosed with DM with HbA1c Done within 6 Months' (selected) and '% Of Patients Diagnosed with DM with HbA1c Done within 12 Months'.
- Export Options:** A section for configuring report exports.



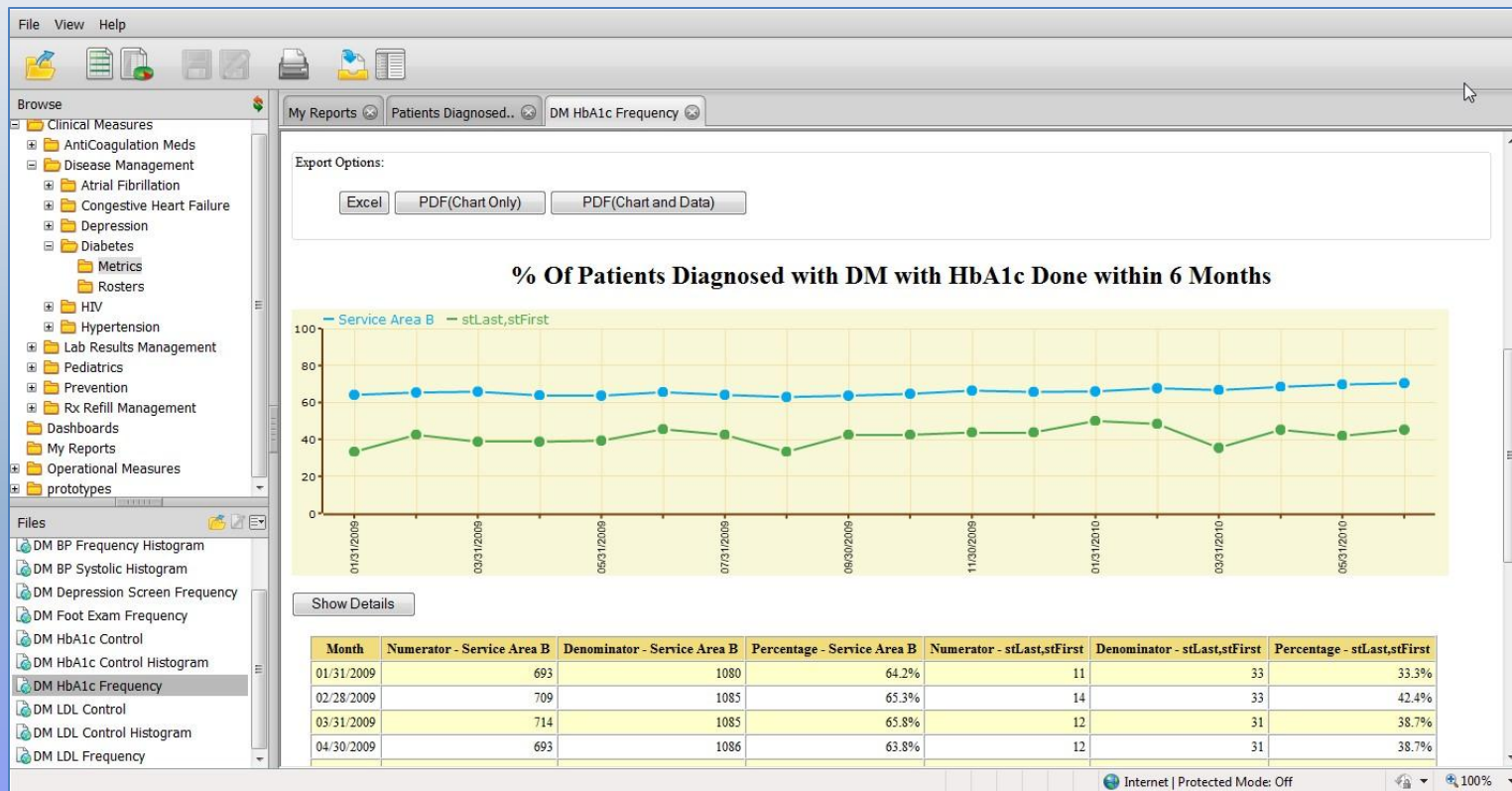
Numerator:
 Adult patients 18 and older screened for depression within the last 12 months (PHQ 9 Score)

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

Provider Summary
 Core Set Criteria Met: 9/15
 Menu Set Criteria Met: 2/7

Eligible Professional Meaningful Use Scorecard

[View Year-To-Date Details](#)

Core Set Criteria		YTD Calculation Details				
Mu#	Objective	Target	YTD Average	Numerator	Denominator	Type
1	CPOE for medication orders by an authorizing provider	30%	64%	699	1100	Patient
3	Generate and transmit permissible prescriptions electronically (eRx)	40%	29%	333	1150	Orders
4	Record demographics	50%	69%	763	1100	Patients
5	Maintain active problem list	80%	86%	946	1100	Patients
6	Maintain active medication list	80%	89%	979	1100	Patients
7	Maintain active medication allergy list	80%	89%	979	1100	Patients
8	Record and chart changes in vital signs	50%	83%	913	1100	Patients
9	Record smoking status for patients 13 years old and older	50%	74%	819	1100	Patients
12†	Provide electronic copy of patient's chart within 3 business days of request	50%	N/A	N/A	N/A	Requests
13	Provide clinical summaries to patients for each office visit	50%	55%	1220	2200	Visits

Menu Set Criteria(b)		YTD Calculation Details				
Mu#	Objective	Target	YTD Average	Numerator	Denominator	Type
2b	Incorporate clinical lab test results into a certified EHR as structured data	40%	N/A	N/A	N/A	Orders
4b	Send reminders per patient preference to patients 65 or older or younger than 5 for preventive/ follow up care	20%	N/A	N/A	N/A	Patients
5b†	Patients receive timely electronic access to their patient record	10%	N/A	N/A	N/A	Patients
6b	Patients receive patient specific educational resources	10%	44%	484	1100	Patients

EHR Capability Criteria - Yes/No Attestation				
Mu#	Objective	Target	YTD Target Met?	
2	Drug-Drug and Drug-Allergy checks	YES	N/A	
10	Launch/track one clinical decision support rule	YES	N/A	
11	Report quality measures to CMS	YES	N/A	
14	Capability to exchange key clinical information electronically	YES	YES	
15	Conduct or review a security risk analysis and implement security updates as necessary.	YES	N/A	
1b	Implement drug-formulary checks	YES	N/A	
3b	Generate lists of patients by specific conditions to use for quality improvement, reduction of disparities, research or outreach	YES	YES	
9b*	Capability to submit electronic data to immunization registries or Immunization Information Systems and actual submission in accordance with applicable law	YES	N/A	

Meaningful Use Reports

Core Set Criteria				Year-To-Date Cumulative Monthly Totals												YTD Calculation Details		
Mu#	Objective	Target	YTD Average	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Numerator	Denominator	Type
1	CPOE for medication orders by an authorizing provider	30%	64%	64%	55%	60%	61%	62%	62%	62%	63%	63%	63%	63%	64%	699	1100	Patient
3	Generate and transmit permissible prescriptions electronically (eRx)	40%	29%	28%	22%	30%	31%	33%	30%	25%	33%	31%	27%	28%	29%	333	1150	Orders
4	Record demographics	50%	69%	70%	38%	44%	54%	60%	63%	65%	66%	67%	68%	69%	69%	763	1100	Patients
5	Maintain active problem list	80%	86%	84%	89%	88%	82%	84%	88%	86%	89%	82%	86%	81%	86%	946	1100	Patients
6	Maintain active medication list	80%	89%	82%	85%	75%	77%	86%	84%	86%	87%	82%	88%	86%	89%	979	1100	Patients
7	Maintain active medication allergy list	80%	89%	90%	68%	75%	77%	82%	84%	84%	87%	82%	86%	86%	89%	979	1100	Patients
8	Record and chart changes in vital signs	50%	83%	82%	80%	90%	85%	85%	85%	90%	86%	85%	86%	85%	83%	913	1100	Patients
9	Record smoking status for patients 13 years old and older	50%	74%	75%	70%	73%	73%	74%	74%	77%	77%	78%	78%	74%	74%	819	1100	Patients
12†	Provide electronic copy of patient's chart within 3 business days of request	50%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Requests
13	Provide clinical summaries to patients for each office visit	50%	55%	55%	38%	44%	42%	36%	40%	46%	54%	57%	57%	56%	55%	1220	2200	Visits

Questions



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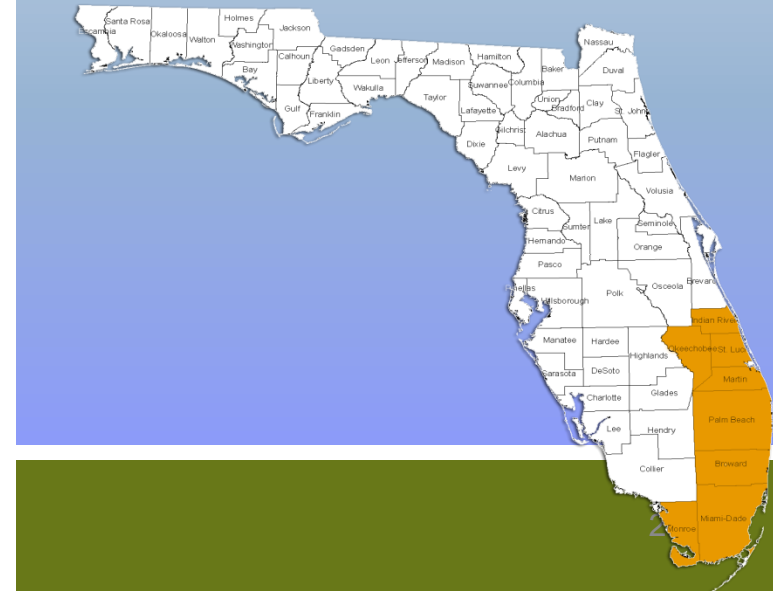
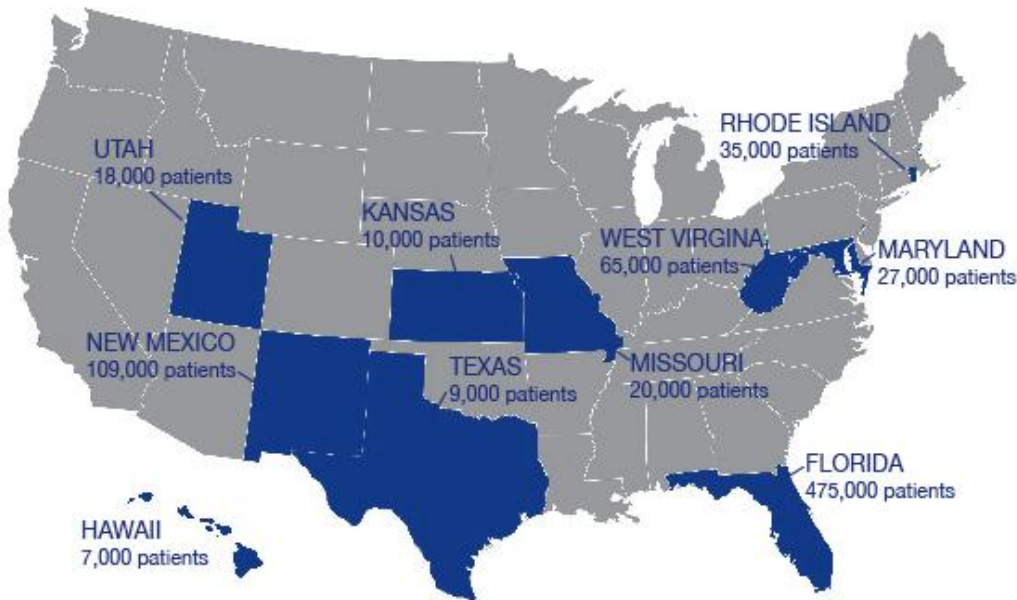
Connecting for Care

SOUTH FLORIDA REGIONAL EXTENSION CENTER[®]

www.southfloridarec.org

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 Imaging
 - 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





O-health information

TECHNOLOGY EXTENSION CENTER

Oregon's Regional Extension Center



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

The OCHIN Collaborative

CALIFORNIA • OREGON • WASHINGTON • OHIO • ALASKA • NORTH CAROLINA • WISCONSIN





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 (CCR)
 - ✓ 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.CHCAlliance.org

Health Center Controlled Network

Est. 1999



www.AdvanceHealthIT.org

Regional Extension Center

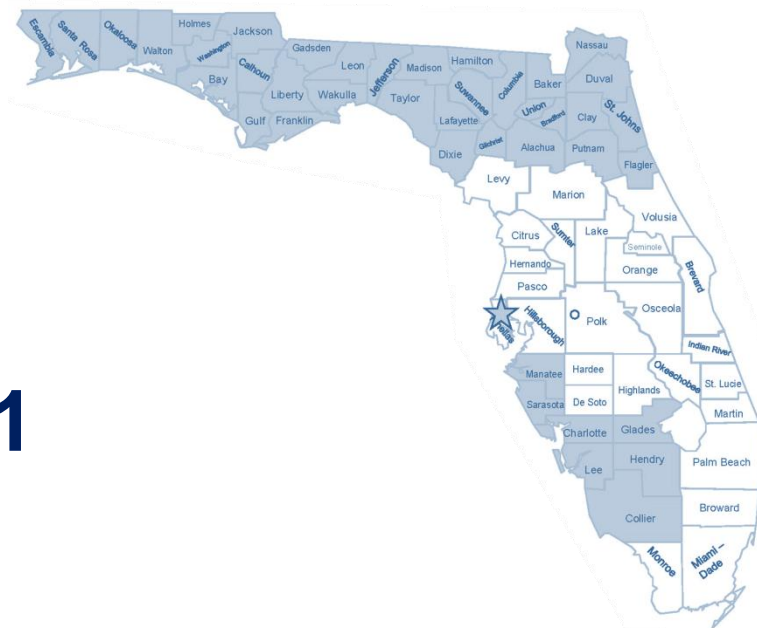
Est. 2010

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)

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*)