

The Office of the National Coordinator for
Health Information Technology



HIT Policy Committee Certification/Adoption Workgroup

Subgroup: Health IT Workforce Development

Larry Wolf, Kindred Healthcare, Subgroup Chair

Chitra Mohla, ONC

William Hersh, Oregon Health & Science University (OHSU)

Patricia Dombrowski, Bellevue College

Norma Morganti & Rita Horwitz, Cuyahoga Community College

June 5, 2013



Subgroup Membership

Chair:

Larry Wolf

Kindred Healthcare

Members:

- Norma Morganti Cuyahoga Community College (Grantee)
- Patricia Dombrowski Bellevue College (Grantee)
- Joe Heyman Whittier IPA, C/A Workgroup Physician
- Bill Hersh Oregon Health and Science University
- Steve Waldren American Academy of Family Physicians
- Samantha Burch Halpert Quality & HIT, Federation of American Hospitals
- Deborah King 1199SEIU Training & Upgrading Fund
- Gretchen Tegethoff Athens Regional Health System, Athens,
- Michelle L. Dougherty AHIMA Foundation

Federal Ex officio

- Ed Salsberg National Center for Health Workforce Analysis, DHHS/HRSA
- Michelle Fox Department of Energy
- Nancy Brooks U.S. Department of Education's Office of Vocational & Adult Education
- Stuart Werner Office of Workforce Investment, Department of Labor

- From HITPC May 2013 Meeting
 - Be Bolder (how to bring this to scale? for example, crowd sourcing of training materials and MOOCs)
 - Educate HITPC on what ONC has done
- ONC Workforce Development Activities
 - Health IT Workforce Development Programs, Chitra Mohla, ONC
 - Health IT Curriculum, William Hersh, Oregon Health & Science University (OHSU)
 - Adaptation of the curriculum for rural physician practices and for VA, Patricia Dombrowski, Bellevue College
 - Role-based Workforce Competencies for Patient-Centered Care via Health IT, Norma Morganti & Rita Horwitz, Cuyahoga Community College
- HITPC Discussion

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Health IT Workforce Development Programs

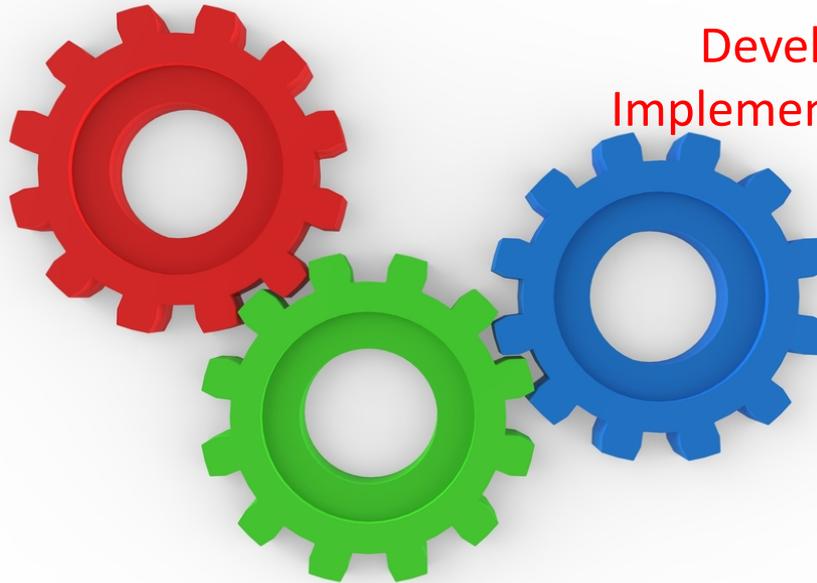
June 5, 2013

Chitra Mohla, M.Sc.

Director, Workforce Programs
Office of Provider Adoption Support (OPAS)

How the Gears Mesh ONC Collaborative Workforce Grants

Curriculum
Development
Centers:
20 components
designed for
dissemination



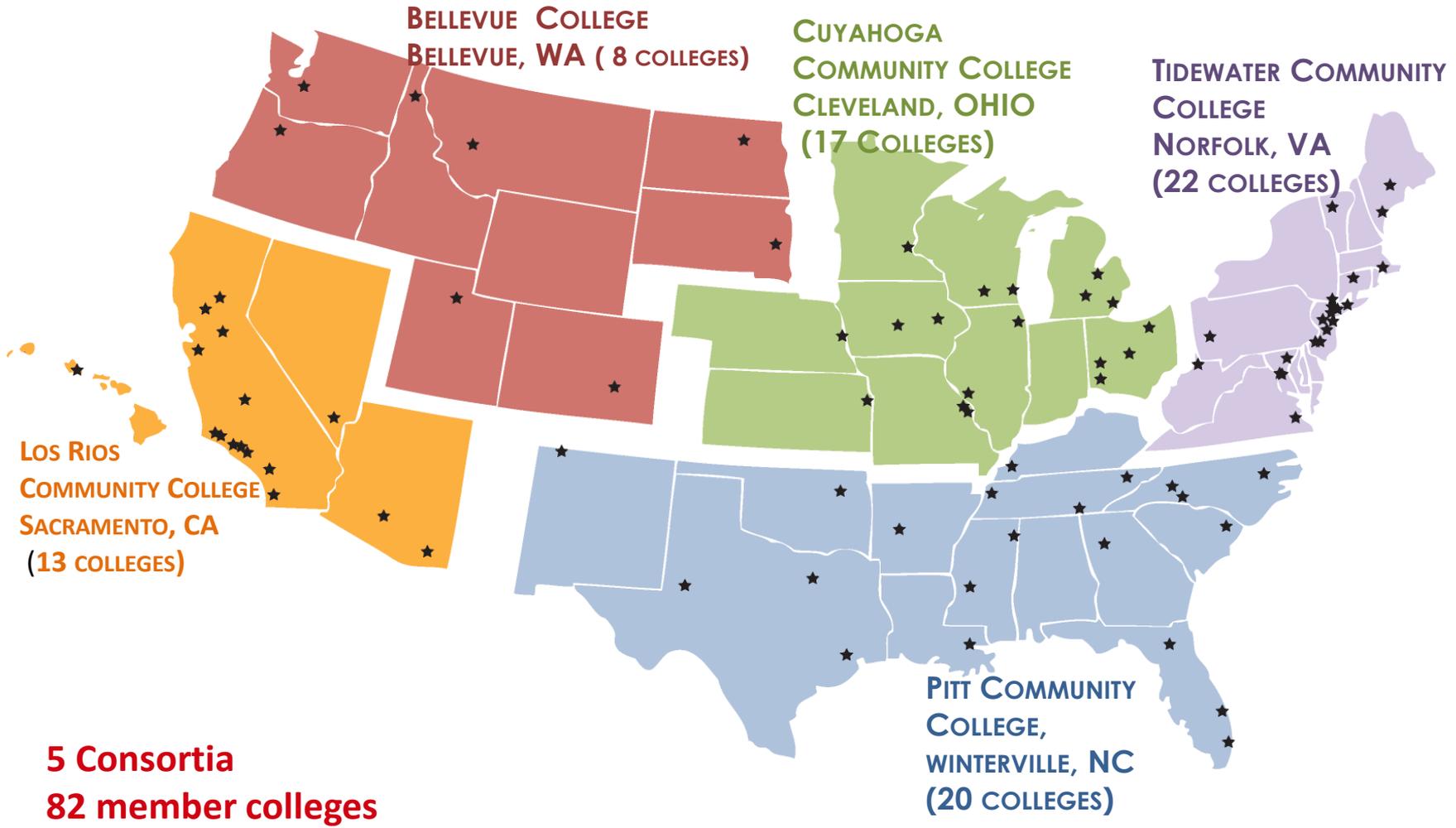
Community
College
Consortia:
Implement program
at 82 member colleges
Ramp up to a training capacity
of 10,500 trainees/year

Competency
Exam:
Development and
Implement exam program



University Based Training:
Implement program
at 9 universities
Graduate 1500 students

Community College Consortia



5 Consortia
82 member colleges

Community College Six Training Roles

- *Practice Workflow Redesign*
- *Clinician Practitioner*
- *Implementation Support Specialist*
- *Implementation Manager*
- *Technical Software Support Specialist*
- *Trainer*

University Based Program Six Training Roles

- *Clinician/Public Health Leader*
- *Health Information Management & Exchange Specialist*
- *Health Information Privacy & Security Specialist*
- *Research and Development Scientist*
- *Programmers and Software Engineers*
- *Health IT Sub-specialist*

Competency Exam



Employment in the healthcare industry is **projected to increase 22 percent** through 2018.

The HIT Pro™ exams assess basic competency of individuals who are seeking to demonstrate proficiency in certain health IT workforce roles integral to the implementation and management of electronic health information.



Take the HIT Pro™ exam. Become a *HIT Pro*.
Make a difference.

Workforce Programs Outcomes

Community Colleges	University Based Training	Curriculum Development Centers	Competency Exam
18,845 Students completed (4/30/2013)	1258 Graduated (4/30/2013)	44,078 unique users, over 187,683 files downloaded; In over 111 countries	9524 exams delivered
1,587 Currently enrolled (4/30/2013)	494 Currently enrolled (4/30/2013)	VISTA for education an open source EHR on the Linux operating system	

Workforce Program Outcomes

- Training material developed by grantee is freely available on Dept. of Energy's National Training and Education Resource site
<https://www.nterlearning.org/>
- In development Learning Resources for PCMH, HIE and MU
- Framework for mapping training resources to workforce roles

*Student Success Stories
Impact of Health IT training*





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The ONC Health IT Curriculum: A National Resource

William Hersh, MD
Department of Medical Informatics & Clinical Epidemiology
Oregon Health & Science University (OHSU)
hersh@ohsu.edu

June, 2013

Putting the **I** in **HealthIT**
www.HealthIT.gov



- Cooperative agreements to 5 universities to support health IT curriculum development that ran from April 2010 to March 2013
 - Duke University
 - Columbia University
 - Johns Hopkins University
 - Oregon Health & Science University (OHSU)
 - University of Alabama Birmingham
- OHSU awarded additional funding to serve as National Training & Dissemination Center (NTDC)
- Third and final version (Version 3) materials currently housed on NTDC site, awaiting final disposition

- Curriculum consists of components supporting instruction in 20 content areas:
 - Introduction to Health Care and Public Health in the U.S.
 - The Culture of Health Care
 - Terminology in Health Care and Public Health Settings
 - Introduction to Information and Computer Science
 - History of Health Information Technology in the U.S.
 - Health Management Information Systems
 - Working with Health IT Systems*
 - Installation and Maintenance of Health IT Systems*
 - Networking and Health Information Exchange
 - Fundamentals of Health Workflow Process Analysis & Redesign
 - Configuring EHRs*
 - Quality Improvement
 - Public Health IT
 - Special Topics Course on Vendor-Specific Systems
 - Usability and Human Factors
 - Professionalism/Customer Service in the Health Environment
 - Working in Teams
 - Planning, Management and Leadership for Health IT
 - Introduction to Project Management
 - Training and Instructional Design

*lab component

- Each component consists of 8-12 units
 - Each unit contains 1-4 lectures
 - Each lecture has
 - Voice-over-Powerpoint Flash presentation
 - PowerPoint slides
 - MP3 audio file
 - Transcript of audio
- Also available are learning activities, discussion questions, and self-assessment questions
- Primary audience is educators, not students

Lab components make use of VA VistA

Vista CPRS in use by: Doctor,One (BROKERSERVER)

File Edit View Tools Help

EIGHT.PATIENT Visit Not Selected Primary Care Team Unassigned
666-00-0008 Apr 07,1935 (75) Provider: DOCTOR,ONE

Flag VistaWeb Postings
Remote Data CAD

Active Problems	Allergies / Adverse Reactions	Postings
Headache Hypertension Hyperlipidemia Acute Myocardial Infarction, Unspecified Site, Episode Of Care Unspecified Chronic Systolic Heart Failure Diabetes Mellitus Type II Or Unspecified	Penicillin Chocolate	Allergies Crisis Note May 21,2000 Advance Directive Completed May 16,2007 Advance Directive Oct 18,2000 Advance Directive Oct 18,2000

Active Medications	Clinical Reminders	Due Date
Metoprolol Tartrate 50mg Tab Active	Depression Screening	DUE NOW
Simvastatin 40mg Tab Active	PC Nutritional Screening	DUE NOW
Non-VA Aspirin 81mg Ec Tab Active	Diabetes - Urinalysis	DUE NOW
	Influenza Vaccine	DUE NOW
	Pneumococcal vaccine (Pneumovax)	DUE NOW

Recent Lab Results	Vitals	Appointments/Visits/Admissions
No Orders Found.	T 98.5 F Mar 05,2010 09:00 (36.9 C) P 74 Mar 05,2010 09:00 R 22 Aug 31,2009 10:00 BP 134/81 Mar 05,2010 09:00 HT 70 in Aug 31,2009 10:01 (177.8 cm) WT 178 lb Mar 05,2010 09:00 (80.7 kg) PN 1 Mar 05,2010 09:00 POX 98 Dec 01,2009 08:53 BMI 25.59 Mar 05,2010 09:00	Aug 26,10 21:19 Cardiology Action Required Aug 12,10 08:00 General Medicine Action Required Aug 11,10 08:00 General Medicine Action Required Aug 10,10 08:00 General Medicine Action Required Aug 09,10 08:00 General Medicine Action Required

Cover Sheet Problems Meds Orders Notes Consults Surgery D/C Summ Labs Reports

Can be downloaded from NTDC – runs in virtual machine under Windows

- 11.2 gigabytes, contained in 18,072 files
- The 20 components of the curriculum contain
 - 9,974 Powerpoint slides
 - Audio lasting over 136 hours (5 days, 16 hours, and 4 minutes, to be precise!)
- Search engine for the text-based files contains 38,181 unique words indexed
- For more details
 - <http://informaticsprofessor.blogspot.com/2012/05/on-c-health-it-curriculum-version-3-and.html>

- To obtain the curriculum materials, anyone can go to <http://www.onc-ntdc.info>, set up a profile, and download components or units
- A matrix of curriculum components and workforce roles has also been created as a guideline for using components to train for particular workforce roles, nicknamed the “set table”
 - Matrix illustrates the core set of components for each role for two types of student backgrounds, health care and IT
- Curriculum components should be viewed as a resource that can be modified, as an “educational buffet”

- Per original funding announcement, universities own intellectual property for their components
- For public rollout, adopting a Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License
- This means all users can use, share, and adapt but must:
 - Attribute originator of work
 - Use only for non-commercial purposes
 - Share any changes made under same license





University-Based Training (UBT) Program:
Another successful ONC workforce initiative



The Office of the National Coordinator for
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Adaption of the ONC Health IT Curriculum for Rural Providers and the U.S. Dept. of Veterans Affairs

Patricia Dombrowski
Executive Director, Life Science Informatics Center
Bellevue College
June, 2013

Putting the **I** in **HealthIT**
www.HealthIT.gov



**Targeted
Training**

**Strategic
Learning for
Rapid
Adoption**



Customized Rural & Migrant Clinic Health IT Training

EXAMPLES

***Meaningful Use**

***IT Project Management**

***Workflow Redesign**

***Change Management**

***EMR Adoption**

***Working With Health IT Systems**

INCUMBENT WORKER TRAINING



Putting the I in HealthIT 
www.HealthIT.gov



VA MEDICAL STAFF

- UNCOMPENSATED

- OFF THE CLOCK

5 Hours

1,000 Enrolled

1,000 Wait Listed



Returning Veterans

Building on ONC Workforce Investment

Putting the I in HealthIT
www.HealthIT.gov



Certified Associate in Health Information & Management Systems

Building on ONC Workforce Development Investment

RIGHT NOW

92

Community
Colleges

Nationwide

Health IT
Workforce
Projects

Building on ONC
Curriculum &
Other Investments





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Role-based Workforce Competencies for Patient- Centered Care via HIT

A Framework for Transformation

Rita Horwitz, RN – Director of Business Development
Better Health *Greater* Cleveland

Norma Morganti – Executive Director Midwest Community
College HIT Consortium – Cuyahoga Community College

June, 2013

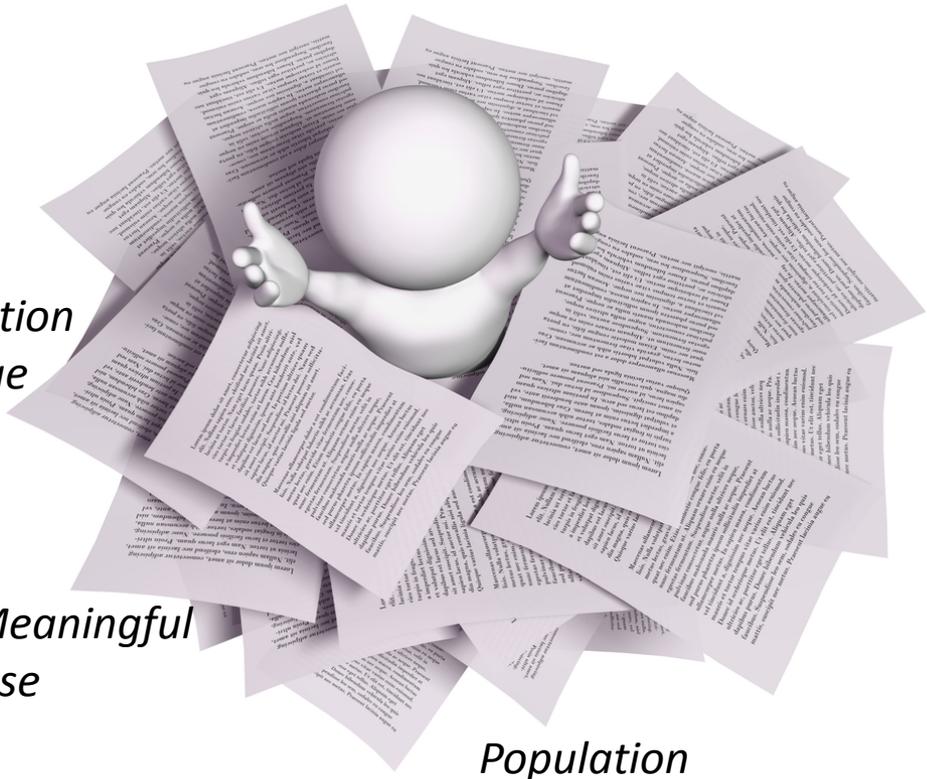
Putting the **I** in **HealthIT**
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So How Do We Help Providers Move Ahead to Stage 2

It's not information overload. It's filter failure!

Patient-Centered Medical Home



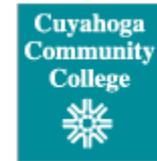
Health Information Exchange

Meaningful Use

Population Management

Our “Filter” Development Process

- Based upon input from subject matter experts and facilitated with partnerships with Better Health *Greater Cleveland*
- Built to be widely distributed and used by educators and health care organizations alike who are ready to move to patient-centered care supported by health IT.



PCMH, HIE, MU, Population Management



New Competencies to Support Practice Transformation



PSR, Front Desk, Medical Secretary

Nurses

Providers

Care Coordinators

PharmD, Pharmacy

Health Care Mgt

Health Info Mgt.

IT Professional



Sample of the Matrix – A Roadmap to Help “Ready the Health Care Workforce for Transformation



Workforce Competencies for Patient-Centered Health Care Delivery through Health IT: A Framework for Practice Transformation

* This project supported in whole or in part by ARRA HIT Grant # 90CC0079/02-04 awarded to the Cuyahoga Community College by the Federal HHS Office of the National Coordinator.

Comp. #	PCMH Competency	DC#	PCMH Detailed Competency	LO#	PCMH Learning Objectives	PSR, Schedulers, Front Desk, Med Secretaries	Nurses (LPNs/RNs), MAs	Providers (MDs, DOs, NPs, PAs)	Care Coordinators	PharmDs, Pharmacy	Health Care Mgmt (Practice Mgrs, Admin)	Health Info Mgmt Medical Records RHIA	IT Professionals	
		8d	Use health information systems to coordinate patient care	8d.1	Recognize the key points in patient care to use information systems for care coordination		X	X	X	X				
9	Use of an evidence-based approach, including decision support tools at point of care	9a	Discuss the role of evidence-based care in PCMH	9a.1	Define the central role of evidence-based care to PCMH		X	X	X	X				
				9a.2	Recognize how evidence-based medicine and decision-support tools guide decision making		X	X	X	X				
		9b	Improve patient outcomes by utilization of information systems in patient care	9b.1	Identify resources for decision-supports and evidence based guidelines			X		X				
Quality Standards														
10	Demonstrate the ability to participate as a team member in quality improvement	10a	Discuss the roles and responsibilities in maintaining quality improvement	10a.1	Identify your role and responsibilities, and those of others on your team, to maintain quality improvement	X	X	X	X	X	X	X	X	
				10a.2	Identify and discuss how to relate to team behaviors that strengthen or weaken patient safety and quality of care	X	X	X	X	X	X	X	X	
		10b	Work as a team to maintain quality improvement	10b.1	List responsibilities necessary to function as a team in quality improvement	X	X	X	X	X	X	X	X	X
				10b.2	List your specific tasks that contribute to quality improvement in your practice	X	X	X	X	X	X	X	X	X

Helping to Filter with Aligned Resources



Workforce Competencies for Patient-Centered Healthcare Delivery through Health IT: A Framework for Practice Transformation

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PCMH Detailed Competency	PCMH Learning Objectives	Resources/Recommendations
	Identify and discuss how to relate to team behaviors that strengthen or weaken patient safety and quality of care	<p>challenges and successes in the transformational journey to a patient-centered medical home, for which a team approach is critical to achieving high quality care</p> <p>http://www.ncbi.nlm.nih.gov/books/NBK2682/</p> <ul style="list-style-type: none"> Tools and Strategies for Quality Improvement and Patient Safety: Discusses various process-improvement techniques to identify inefficiencies, ineffective care, and preventable errors to then influence changes associated with systems
Work as a team to maintain quality improvement	List responsibilities necessary to function as a team in quality improvement	<p>http://www.jabfm.org/content/25/2/224.long</p> <ul style="list-style-type: none"> Implementing Teams in a Patient-Centered Medical Home Residency Practice: Lessons Learned: Reports challenges and successes in the transformational journey to a patient-centered medical home, for which a team approach is critical to achieving high quality care
	List your specific tasks that contribute to quality improvement in your practice	<p>Recommendation: Develop learning activity by leveraging this resource:</p> <p>http://www.transformed.com/transformed.cfm</p> <ul style="list-style-type: none"> The TransforMED Patient-Centered Model: Unites the enduring relationship-centered values of primary practice with new technologies and approaches to enable practices to better serve the needs of both patients and practices
	Using an example, illustrate the role and responsibilities of a quality improvement team	<p>Recommendation: Develop learning activity by leveraging this resource:</p> <p>http://www.jabfm.org/content/25/2/224.long</p> <ul style="list-style-type: none"> Implementing Teams in a Patient-Centered Medical Home Residency Practice: Lessons Learned: Reports challenges and successes in the transformational journey to a patient-centered medical home, for which a team approach is critical to achieving high quality care
Engage in a formal process of quality improvement focusing on both service and clinical outcome measures	Recognize a formal quality improvement process	<p>http://www.safetynetmedicalhome.org/sites/default/files/Implementation-Guide-QI-Strategy-1.pdf</p> <ul style="list-style-type: none"> Quality Improvement Strategy: Choosing and Using a QI Framework: Provides information on the QI strategies most often used in the primary care setting for PCMH transformation, which are the Model for Improvement and Lean Methods

- **Course Learning Objectives :**
 - Identify the goals, principles and major concepts of the PCMH.
 - Implement effective team interactions for successful patient-centered outcomes.
 - Know how to assist patients with self-management through education and action planning.
 - Translate the importance of secure and private information systems to the functionality of the PCMH.
 - Recognize the importance of continuous quality improvement, including identifying roles and responsibilities within the team approach and implementing best practices for patient care.
 - Apply the principles and practices of change management to assist in practice transformation to the PCMH model

Course Highlights

Engage the nursing role in answering the question, *“How can I support transformation?”*

Modules are organized into smaller units, no longer than ten minutes in length.

Resources built into the modules for supplemental information

Theory into Practice, (TIP) leverages realistic scenarios to help learners apply content in real-world situations

Taking Action worksheets allow learners to consider how to implement and apply the content explored back in the practice

Appendix

Thanks to Our Subject Matter Experts

Patient Centered Medical Homes - SMEs

Diane Cardwell	<i>VP, Healthcare Solutions</i>	TransforMED
Lee Elmore	<i>Executive Director</i>	North Coast Health Ministry
Dena Fisher	<i>Practice Facilitator</i>	Case Western Reserve University
Jan Fuchs	<i>Sr. Director, Ambulatory Nursing</i>	Cleveland Clinic
Kevin Hopkins	<i>Physician</i>	Cleveland Clinic
Mamta (Mimi) Singh	<i>Phys. Director, Center of Excellence</i>	Louis Stokes VA Medical Center
Christine Sinsky	<i>Physician</i>	Medical Associates Clinic
Teresa Thompson	<i>CMA</i>	Cleveland Clinic
Phil Tomsik	<i>Medical Director</i>	North Coast Health Ministry
Sherry Brewer	<i>MA Program Manager</i>	Cuyahoga Community College

Meaningful Use - SMEs

Leah Brunie	<i>Nurse Practitioner</i>	Summit Family Physicians
Bob Elson	<i>President</i>	Clinical Systems Design, LLC
Wesley Gipe	<i>President</i>	Agil IT
Peter Greco	<i>Director of Medical Informatics</i>	MetroHealth
Stefanie Strinko	<i>Project Manager</i>	KY Regional Extension Center
Lindsay Zopfi	<i>EHR Implementation Support</i>	KY Regional Extension Center
Kathy Loflin	<i>HIM Program Manager</i>	Cuyahoga Community College

Health Information Exchange

Randy Cebul	<i>President</i>	Better Health Greater Cleveland
Cathy Costello	<i>Project Manager, REC Services</i>	OH Health Information Partnership
John Jason	<i>Patient Advocate</i>	Neighborhood Family Practice
David Kaelber	<i>Chief Medical Information Officer</i>	MetroHealth
Joe Peter	<i>Director</i>	CWRU Regional Extension Center
Alice Petrusis	<i>Medical Director, Care Management</i>	MetroHealth
Bob White	<i>Assoc. Chief Medical Information Officer</i>	Cleveland Clinic
Mary Zile	<i>Director of Practice Consulting</i>	HealthBridge Tri-State REC
Sunny Ainley	<i>Associate Dean</i>	Normandale Community College

Thanks to Our Subject Matter Experts

Population Management/Data Analytics

Karen Benjamin	<i>Chief Administrative Officer</i>	Ohio Permanente Medical Group
Kim Brown	<i>RN Care Coordinator</i>	MetroHealth
Kyle Edwards	<i>RN Care Coordinator</i>	MetroHealth
Dan Gauntner	<i>Nurse Practitioner</i>	Neighborhood Family Practice
Gwyn Hartman	<i>Director, Managed Care</i>	MetroHealth
Amy Hirsch Shumaker	<i>Clinical Pharm. Specialist, Sr. Clinical Instructor</i>	CWRU School of Medicine
Thomas Love	<i>Director of Data</i>	Better Health Greater Cleveland
Brook Watts	<i>Associate Professor, Internal Medicine</i>	Louis Stokes VA Medical Center

Hosted by Cuyahoga Community College

Patti Reid	<i>VP Health Education Initiatives</i>
Rebecca Stolzman	<i>Director, Grants Management</i>
Norma Morganti	<i>Executive Director, Midwest HIT Consortium</i>
Beth Dillon	<i>Program Coordinator, Midwest HIT Consortium</i>

Facilitated by Better Health Greater Cleveland

Dr. Randy Cebul	<i>President</i>
Rita Horwitz	<i>Director, Business Development</i>
Caroline Carter	<i>Co-Director, QI Learning Collaborative</i>
Bonnie Holloper	<i>Practice Coach/CME Administrator</i>
Rehan Waheed	<i>HIT Practice Coach</i>
Linda Stokes	<i>Practice Coach, NCQA PCMH Recognition</i>

With Special Thanks To:

Roy Anderson	<i>Director, Health Science Ed Partnerships</i>	Cleveland Clinic
Mary Thibeault	<i>Project Manager</i>	Cleveland Clinic
James Thomascik	<i>Project Manager</i>	Cleveland Clinic
Heather Torok	<i>Sr. Program Officer, Healthy People</i>	St. Luke's Foundation

Key Competencies - PCMH



Key Competencies - HIE



