

# Practical Solutions for Supporting Primary Care Quality Improvement with Health Information Technology

*AHRQ EvidenceNOW Public Webinar*  
12PM-1PM EST June 22, 2016

# Welcome and Introduction

Robert McNellis, M.P.H., P.A.  
*Agency for Healthcare Research  
and Quality*



# Agenda

## Welcome and introduction

Robert McNellis, M.P.H., P.A.,  
*Agency for Healthcare Research and  
Quality*

## Factors and tools that promote greater use of health IT for QI

Tricia Collins Higgins, Ph.D., M.P.H.  
*Mathematica Policy Research*

## How HIT can help (and not hinder) primary care – Ground lessons from Healthy Hearts Northwest

David Dorr, M.D., M.S.  
*Oregon Health & Science University,  
EvidenceNOW Northwest  
Cooperative*

## Q&A

All panelists

# Overview of AHRQ's EvidenceNOW Initiative

# One Stream of Influence



# Second Stream of Influence

- Million Hearts
- Funding from the Affordable Care Act
  - Beginning in FY2011, AHRQ began receiving funds from the PCOR Trust Fund to disseminate Patient-centered Outcome Research (PCOR) findings
    - And support the implementation of PCOR evidence into practice
- A focus on primary care

# Third Stream of Influence

- A focus on primary care

AHRQ recognizes that revitalizing the Nation's primary care system is foundational to achieving high-quality, accessible, efficient health care for all Americans.

# Waters run deep

- A focus on primary care
  - [Research and evaluation of the PCMH](#)
  - Guidance on [practice facilitation](#) as a tool for practice improvement
  - Investments in primary care [practice-based research networks](#)
  - [Integration of primary care and behavioral health](#)
  - [Care coordination](#)
  - [Self management support](#)
  - Utilizing [health IT](#) for quality improvement
  - Team-based care and [team training](#)



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FOR EXCELLENCE IN  
PRIMARY CARE RESEARCH





Goal is to ensure that primary care practices have the latest evidence on cardiovascular health and that they use it to help their patients live healthier and longer lives.

- **Implement PCOR findings** in primary care practice to improve health care quality
  - Focus on heart health (ABCS)
- **Build primary care practices' capacity** to receive and incorporate other PCOR findings in the future
- **Research Question** – Does externally provided QI support accelerate the dissemination and implementation of PCOR findings?

# Scope of the Project

- \$112 million investment
  - Seven grants to establish regional Cooperatives
  - One grant for an independent, external evaluation
  - Creation of a Technical Assistance Center (TAC)
- Reach
  - Over 1500 small to medium sized primary care practices
  - Over 5000 primary care professionals
  - Over 8,000,000 patients
- EvidenceNOW is AHRQ's largest single investment in research since ARRA

# Where are we?

## Healthy Hearts in the Heartland

(Midwest Cooperative)

## HealthyHearts NYC

(New York City Cooperative)

## Heart Health NOW!

(North Carolina Cooperative)

## Healthy Hearts Northwest

(Northwest Cooperative)

## Healthy Hearts for Oklahoma

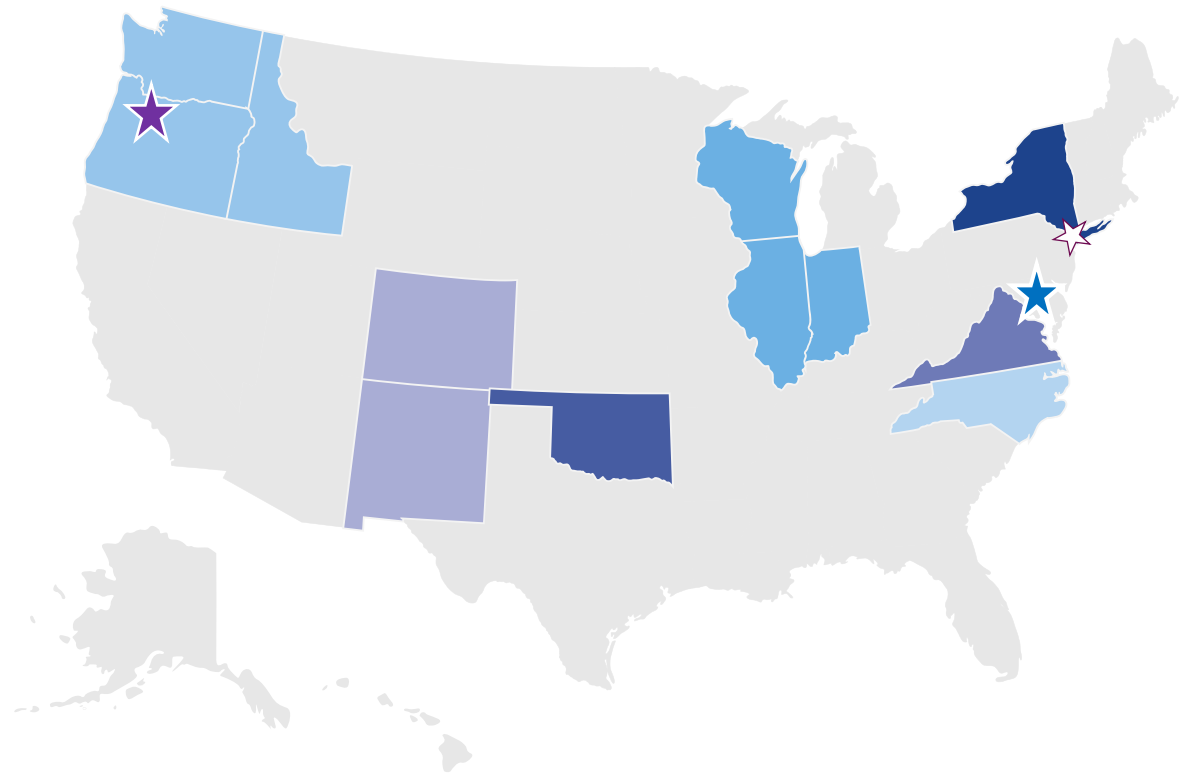
(Oklahoma Cooperative)

## EvidenceNOW Southwest

(Southwest Cooperative)

## Heart of Virginia Healthcare

(Virginia Cooperative)



**ESCALATES**

(National Evaluation Team)



**TAC**

(Technical Assistance Center)



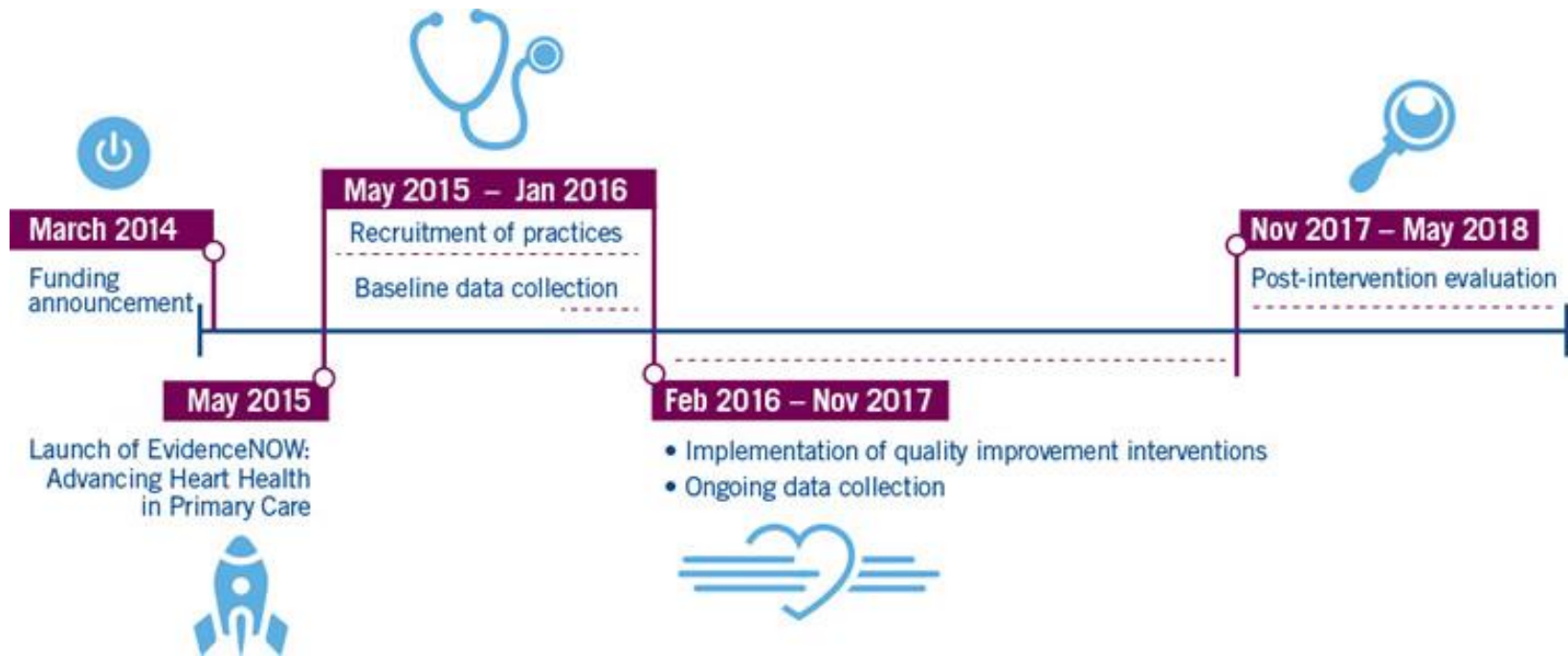
# Quality Improvement Services



# Evaluation Metrics

- The rate of ABCS delivery for all practices
- Measures of practice capacity
- Mixed methods evaluation of implementation of intervention

## Timeline



# Current Status

- Recruited over 1500 primary care practices
- All seven cooperatives have started their QI intervention
- Challenges:
  - Changing landscape of primary care
  - New cholesterol measure
  - Extraction and use of data from EHRs for research and quality improvement

# Factors and tools that promote greater use of health IT for QI

Tricia Collins Higgins, Ph.D., M.P.H.  
*Mathematica Policy Research*





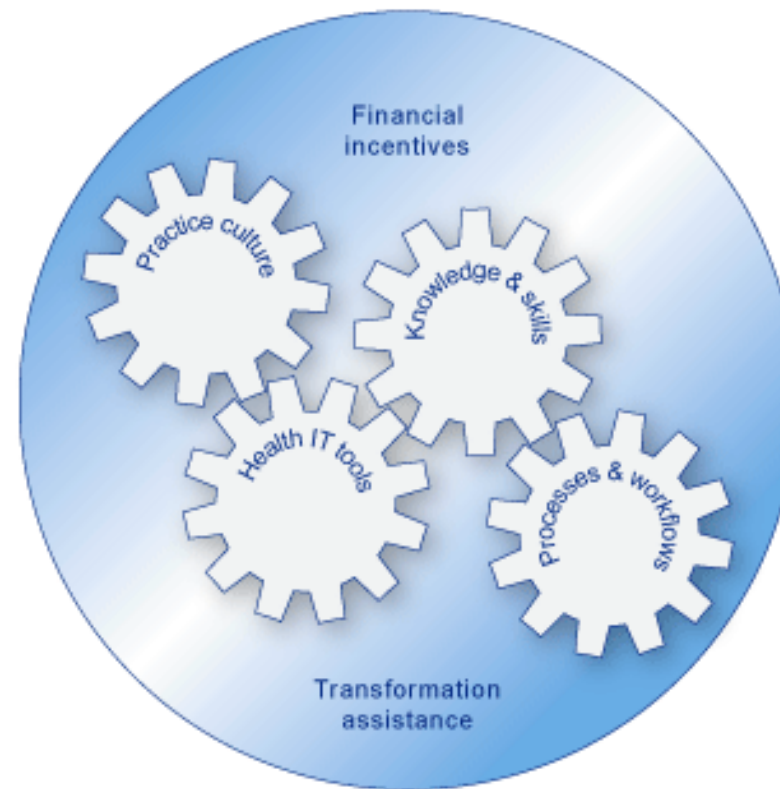
# Overview of White Paper

- [Using Health Information Technology to Support Quality Improvement in Primary Care](#)
- Available at [www.pcmh.ahrq.gov](http://www.pcmh.ahrq.gov)
- Citation: Higgins, T.C., J. Crosson, D. Peikes, R. McNellis, J. Genevro, and D. Meyers. “Using Health Information Technology to Support Quality Improvement in Primary Care.” AHRQ Publication No. 15-0031-EF. Rockville, MD: Agency for Healthcare Research and Quality, March 2015.

# Methods

- Targeted review of published literature
- Technical expert panel discussions
- In-depth interviews with clinicians and other QI leaders of three exemplary organizations

# Factors Supporting the Use of Health IT for QI in Primary Care



# Practice Culture

- Strong commitment by leadership which embraces and holds others accountable to the principles and processes of a *learning organization*
- Ongoing, continuous QI work beyond any particular project
- Dedication of the necessary time and resources to use health IT for ongoing QI

For more information on learning organizations: Taylor EF, Genevro J, Peikes D, Geonnotti K, Wang W, Meyers D. “Building Quality Improvement Capacity in Primary Care: Supports And Resources.” Rockville, MD: Agency for Healthcare Research and Quality, April 2013a. Available at <http://www.ahrq.gov/professionals/prevention-chronic-care/improve/capacity-building/pcmhqi2.html>

# Health IT Tools

- Electronic Health Records (EHRs)
- Registries
- Decision support systems
- Health Information Exchange (HIE)



# Knowledge and Skills

- Clinicians and staff require knowledge and skills to:
  - extract and analyze health IT data
  - execute QI methods
  - redesign practice workflows



# Processes and Workflows

- Structured procedures to measure and report on practice-level and clinician-level data and provide feedback to clinicians
- Adaptations to daily practice activities, based on QI findings, to improve patient care



# Financial Incentives and Transformation Supports

- Discounts on health IT
- Additional payments from payers, or shared savings models
- Data feedback and benchmarking
- Practice facilitation or coaching
- Expert consultation (peer-to-peer mentoring)
- Shared learning opportunities



# Selected Key Findings for Practices

- Understand time commitments, training requirements, and workflow shifts
- Make the process meaningful by connecting the use of health IT for QI to better patient care
- Establish a dedicated QI team
- Before beginning QI, clearly define goals and consider the effects of new processes on the entire practice
- Vision and leadership are critical

## On Vision and Leadership:

*“You have to have a leader who has a vision of what the future might look like for health care delivery and how we will be graded and paid. I saw [pursuing QI through Beacon and CPC participation] as a way for us to begin that journey to a different health care delivery and payment future.”*

*– Gregory Reicks, D.O., Foresight Family Physicians, Grand Junction, CO*

# Selected Key Findings for IT Developers

- Consider how health IT design and standards can support or hinder primary care practices using this technology for QI
- Improve interoperability of health IT and the information exchange standards and capabilities of health IT

Krist AH, Beasley JW, Crosson JC, Kibbe DC, Klinkman MS, Lehmann CU, Fox CH, Mitchell JM, Mold JW, Pace, WD, Peterson KA, Phillips RL, Post R, J Puro, Raddock M, Simkus R, Waldren, SE.

Electronic health record functionality needed to better support primary care." *Journal of the American Medical Informatics Association*, vol. 21, issue 5, 2014, pp. 764-771.



# On Health IT Functionality:

*“It is frustrating when you purchase an EHR system and think you are getting a certain set of functions and then learn you need to put more money in to get the good stuff.”*

*- Richelle Koopman, M.D., M.S., University of Missouri Health System*

# Selected Key Findings for Decision Makers

- Balance standardization and measurement goals with freedom for practices to tailor their approaches
- Support the provision of external technical assistance
- Expand opportunities for financial assistance, particularly for safety net providers and small practices

## On Health IT Costs:

*“This [cost of health IT] is wiping out practices that are on their own. They can’t afford the infrastructure to do quality reporting work without being part of a larger organization in some way.”*

*- Scott Fields, M.D., OCHIN*

# Recommendations

- To increase collaboration between primary care practices, practice facilitators, IT developers, and decision makers and encourage the use of health IT for QI in primary care:
  - Share examples of exemplary uses
  - Develop and refine high-functioning, interoperable health IT tools
  - Provide guidance and tools to help primary care practices acquire knowledge and skills needed for use of health IT for QI
  - Expand the availability of financial incentives and other transformation supports

# Technical Expert Panel

- **Michael Barr, M.D., M.B.A.**, Executive Vice President for Research, Performance Measurement, and Analysis, National Committee for Quality Assurance
- **Lisa Dolan-Branton, R.N.**, Associate Vice President, Operational Excellence, National Association of Community Health Centers
- **David Dorr, M.D., M.S.**, Assistant Professor of Medical Informatics and Clinical Epidemiology, Oregon Health and Science University
- **Alexander Fiks, M.D.**, Assistant Professor of Pediatrics, The Children's Hospital of Philadelphia and Perelman School of Medicine at the University of Pennsylvania
- **Thomas R. Graf, M.D.**, Chief Medical Officer, Population Health and Longitudinal Care Service Lines, Geisinger Health System
- **Rich Holden, Ph.D.**, Assistant Professor, Department of Medicine, Department of Biomedical Informatics, Vanderbilt University
- **Richelle Koopman, M.D., M.S.**, Associate Professor, Family and Community Medicine, University of Missouri
- **Alex Krist, M.D., M.P.H.**, Co-Director, Ambulatory Care Outcomes Research Network, Virginia Commonwealth University



# Key Informants

- **Scott Fields, M.D.**, Chief Medical Officer, OCHIN
- **Tim Hogan, R.R.T., Ph.D.**, Coordinator, Quality Assessment and Improvement, Curtis W. and Ann H. Long Department of Family and Community Medicine, University of Missouri
- **Richelle Koopman, M.D.**, Associate Professor, Curtis W. and Ann H. Long Department of Family and Community Medicine, University of Missouri
- **Gregory Reicks, D.O., F.A.A.F.P.**; President, Foresight Family Physicians; Chief Medical Officer, Mesa Co. IPA; Chairman, Quality Health Network

# Funders and Collaborators

- Agency for Healthcare Research and Quality
  - Robert McNellis, M.P.H., P.A., Senior Advisor for Primary Care
  - Janice Geneviro, Ph.D., Health Scientist, PCMH Project Lead
  - David Meyers, M.D., Chief Medical Officer
  - AHRQ's HIT Team

# For more information...

- Tricia Higgins:

[THiggins@mathematica-mpr.com](mailto:THiggins@mathematica-mpr.com)

- [www.pcmh.ahrq.gov](http://www.pcmh.ahrq.gov)



# How HIT can help (and not hinder) primary care – Ground lessons from Healthy Hearts Northwest

David Dorr, M.D., M.S.  
*Oregon Health & Science University*



## A bit about us

- 3 state collaborative (WA, ID, OR)
- Parchman, PI – GroupHealth
  - WA, ID: Qualis – Peggy Evans, Jeff Hummel;
  - UW – Laura Mae Baldwin
  - OR: ORPRN – LJ Fagnan
  - Stuck with me: David Dorr, Internist, Informatician

# Our general approach

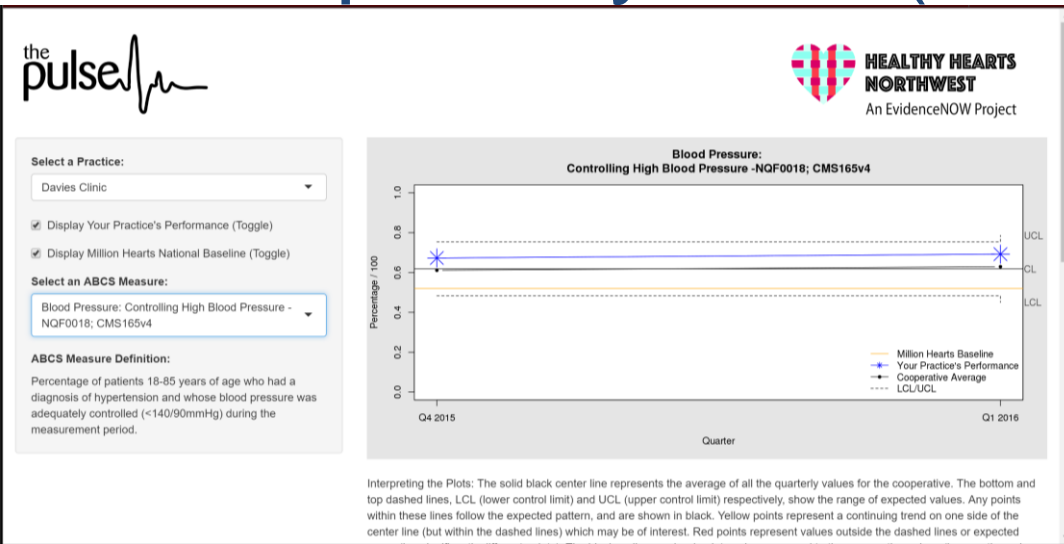
"If you give a man a fish  
he is hungry again in an hour.  
If you teach him to catch a fish  
you do him a good turn."

Anne Isabella Thackeray Ritchie  
(in Mrs. Dymond)



- 250 practices enrolled
- General quality improvement
  - Driven by the Practice
  - Mediated by Practice Facilitators
  - With varying HIT experience
  - HIT experts
- Practices to get their own data – but how?
  - Their EHR
  - Custom reports
  - Registries
  - Chart review

## Model of HIT use and benefits in primary care (ABCS focused)



[Print](#) [Export to Excel](#)

**Value Adherence Rate: 53.63%**

**Date Adherence Rate: 56.77%**

[Results](#) [Exclusions](#)

**Actions:**

select	EHR ID	Patient Name	Phone	Physician	Lab ID	Lab Result	Lab Date
<input type="checkbox"/>	1111111	Jim Doe	123.123.1234	Jill Doctor	A1C	7.8	07/01/2011
<input type="checkbox"/>	2222222	Joe Doe	123.123.1234	Jill Doctor	A1C	6.3	08/24/2011
<input type="checkbox"/>	3333333	Joel Doe	123.123.1234	Jill Doctor	A1C	7.0	06/22/2011
<input type="checkbox"/>	4444444	John Doe	123.123.1234	Jill Doctor	A1C	5.9	05/13/2009
<input type="checkbox"/>	5555555	Jon Doe	123.123.1234	Jill Doctor	A1C	10.5	07/22/2011

# HIT Model part 2

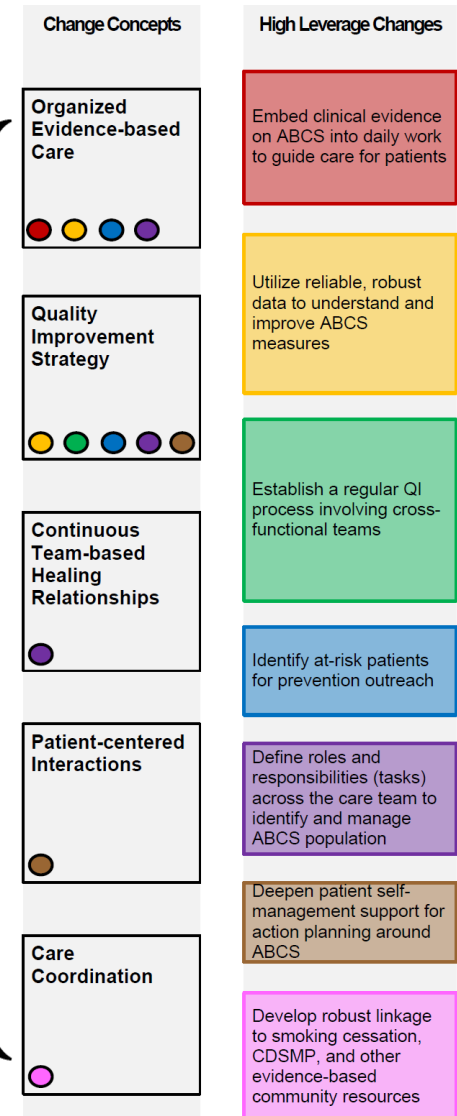
## Patient-level decision support

Patient Worksheet and Care Plan			
<b>B620, M200</b>		<a href="#">Export to PDF</a>	<a href="#">Print Content</a>
<b>MRN:</b> 2006209763014	<b>Sex:</b> F	<b>DOB:</b> 01/01/1952	
<b>Phone:</b>	<b>PCP:</b> Hillary Caseman		<b>Caregiver:</b>
<b>Care Manager:</b> John Cavil			
<b>Diagnoses</b>			
Anemia, Dementia, Depression, Diabetes, Hyperlipidemia, Hypertension, Obesity, Renal Failure, Seizures, Thyroid Disease			
<b>Utilization</b>			
ED Visit	12/22/2012	Last Office Visit	05/25/2014
Hospitalization	No Hospitalizations.	Next Visit	None Scheduled.
<b>Care Actions</b>			
<a href="#">More Information</a>			
<b>Prevention</b>	<b>Status</b>	<b>Diabetes</b>	<b>Status</b>
PHQ2 (18+)	PHQ past due	DM: eye exam	Eye exam due
		DM: HIGH BP (<140/90)	BP HIGH
		HTN: BP Control	BP HIGH
<b>Vital Name</b>		<b>Vital Results</b>	
SYSTOLIC (24 mos)			
DIASTOLIC (24 mos)			
BMI (24 mos)			
<b>Lab Name</b>	<b>Lab Results</b>		
A1C (24 mos)			
<b>Medications</b>		<b>Comments</b>	
<b>Medication</b>	<b>Dosage</b>	<b>PRN</b>	No comments in the system
amoxicillin 500 mg tablet	Take 2,000 mg by mouth as needed (dental prophylaxis). Take 1 hour prior to dental procedures	<input type="checkbox"/>	
lamotrigine 150 mg tablet	Take 150 mg by mouth once daily. Give at 5pm	<input type="checkbox"/>	



# How we organize ourselves

- Practice Facilitators: monthly contacts
  - Focus on high leverage changes
  - HIT as part of those QI goals, but key focus
- Query capabilities, then bring EHR knowledge and re-assess
- Provide tools: data extraction guides, user group contacts, The Pulse



## Surprising findings to date

- You don't know what you don't know ...
  - the 'hidden tab' phenomenon
  - Human Factors
- EHR abilities are HIGHLY variable – performing to the test vs. honest desire to help
- Registries are an increasing focus
- Workforce for informatics and IT is highly variable
- Organizational factors: Size, ownership, and location affect HIT use, but in unexpected ways
  - Urban independent practices and rural system practices most able to produce measures

## More Information

David Dorr: [dorrd@ohsu.edu](mailto:dorrd@ohsu.edu)

<http://healthyheartsnw.org/>

Thank you!

# Question and Answer Session

Please submit your questions to  
All Panelists using the Chat box.

# Follow the story

- Web site: <http://www.ahrq.gov/evidencenow>
- Planned updates:
  - Summer 2016 Evaluation Metrics
  - Fall 2016 PCOR Evidence
  - Winter 2017 Primary Care Practice Snapshots
  - Spring 2017 Practice Capacity Data
  - Summer 2017 Baseline ABCS Data



Thank you  
for joining us  
today!