



Funded by the
John A. Hartford foundation,
The NLM, and AHRQ

Initial development at
Intermountain Healthcare

Sustainable Primary Care and Care Management

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Overview

- Define ‘care management’ in three models
 - Payer-driven case/disease management
 - Multipayer ambulatory care clinics
 - The Medical Home
- (Interleaved) What is the evidence behind care management?
- What are the opportunities and challenges for practices?

Case study

Ms. Viera

a 75-year-old woman
with diabetes,
systolic hypertension,
mild congestive heart failure,
arthritis and
recently diagnosed dementia.



Ms. Viera and her caregiver come to clinic with several problems, including

1. hip and knee pain,
2. trouble taking all of her current 12 medicines,
3. dizziness when she gets up at night,
4. low blood sugars in the morning, and
5. a recent fall.

Ms. Viera's office visit

And Out in the hall:

6. The caregiver confidentially notes he is exhausted
7. money is running low for additional medications.

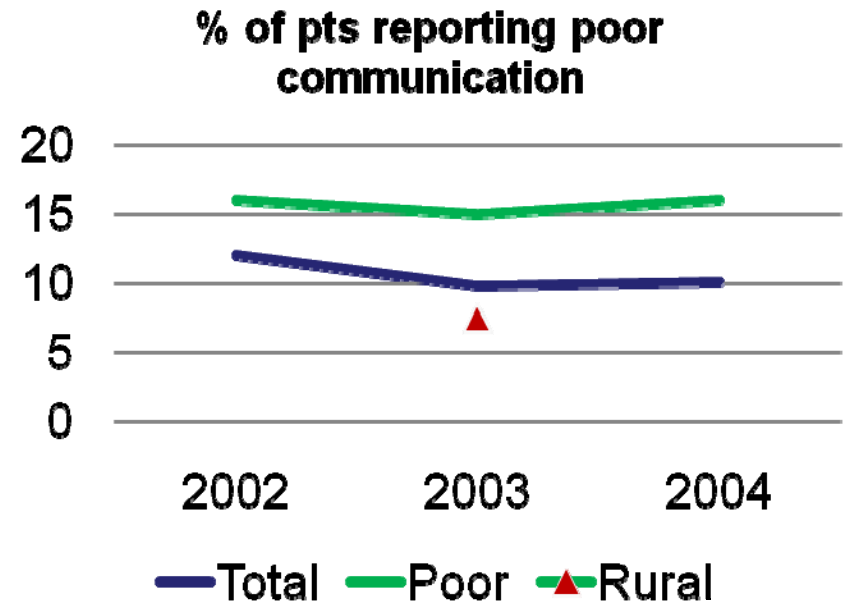
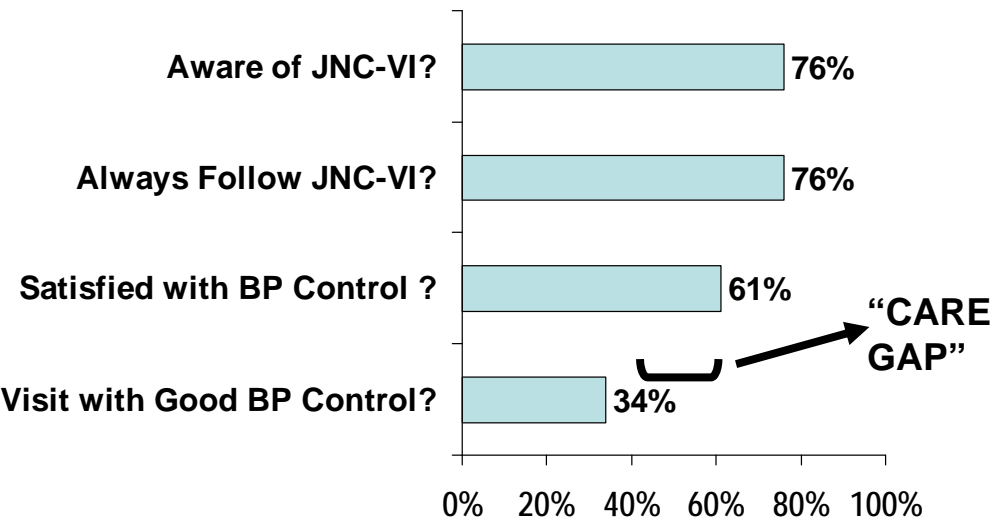
How can Dr. Smith and the primary care team handle these issues?

What are the gaps for high quality, patient-centered care?

Failure to consistently follow

...

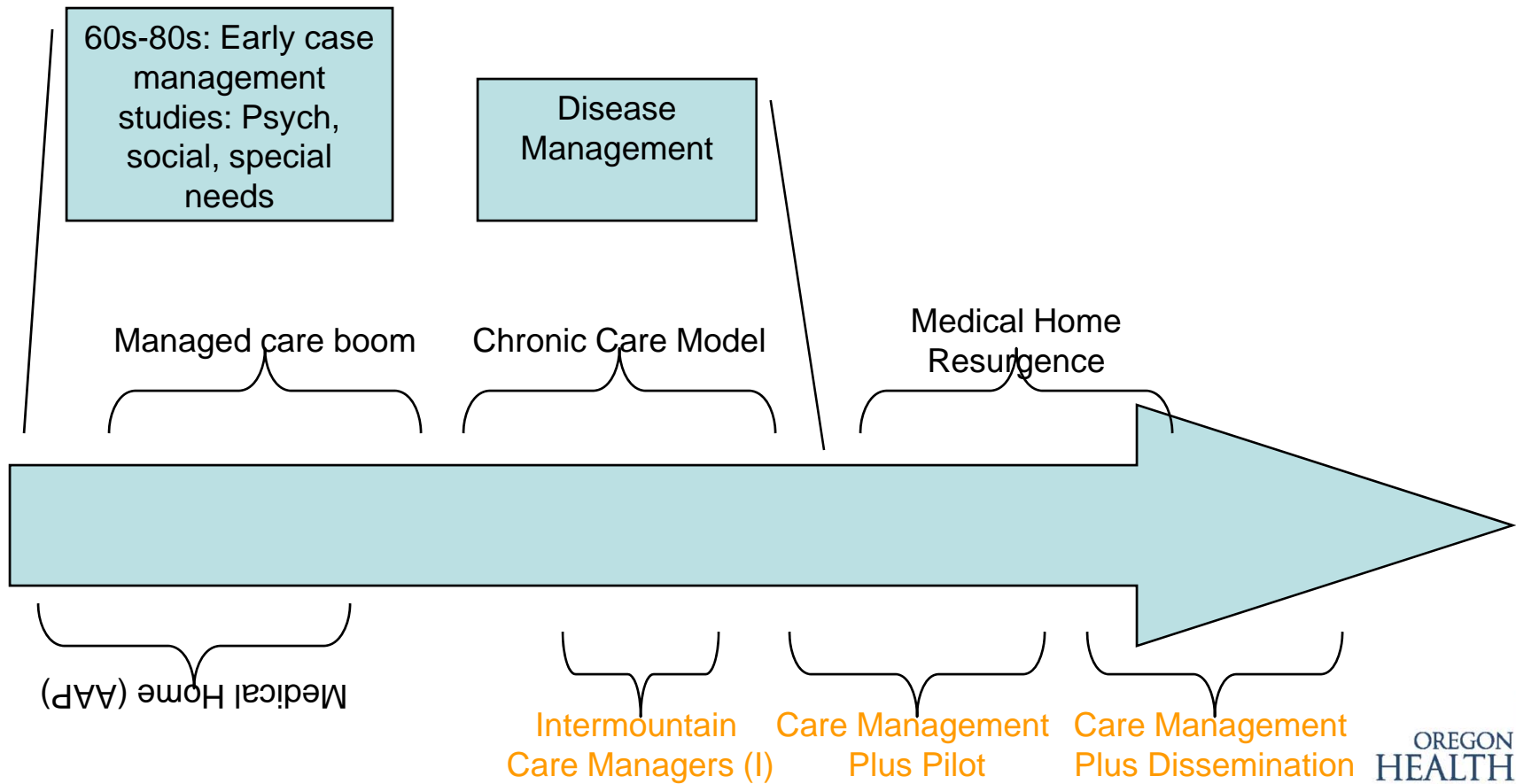
Failure to consider patient needs



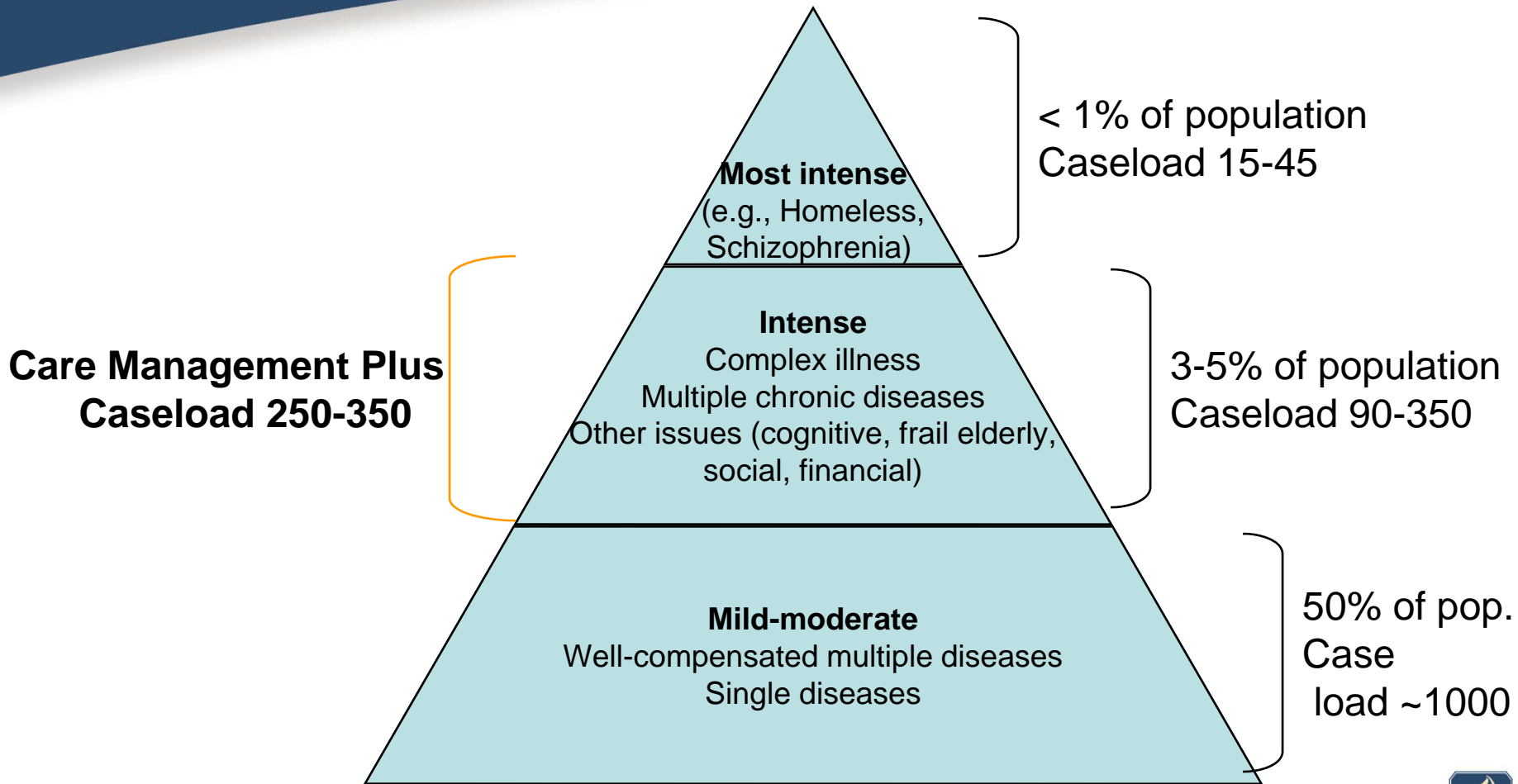
(Oliveria et al. Arch Intern Med. 2002;162)

How to address? Care (caring) management (system)

(one) history of care management



Team-based Care management varies by intensity and function for different populations and needs.



**Care Management Plus
Caseload 250-350**

Two very different models

- Case / disease management (mostly third party)
 - Benefit is reduced utilization / cost to payer
 - Programs have been largely telephonic
 - < 10% of Medicare demonstrations were successful
- Ambulatory clinic care management / coordination
 - Benefit needs to be revenue to clinic or efficiency
 - Many natural opportunities: **trust**, service orientation, coordination
 - ~20% of Medicare demonstrations were successful

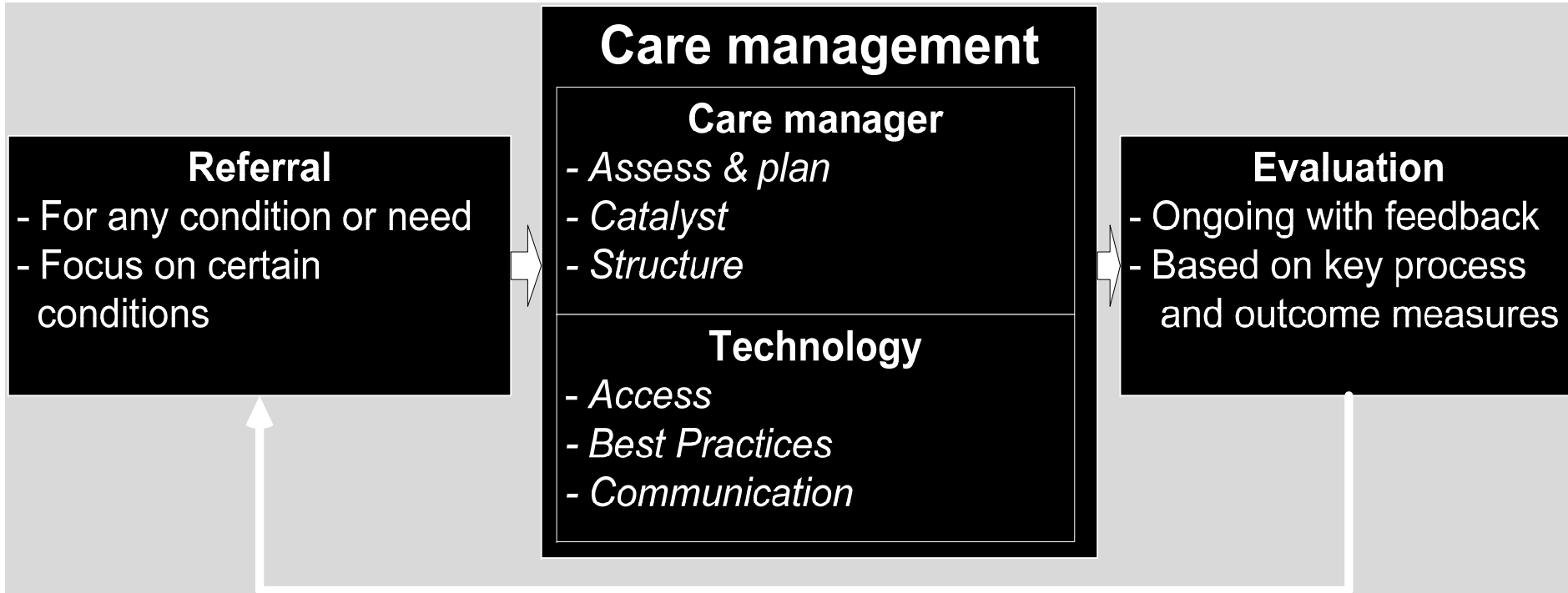
Third-party case management / coordination

- What are potential roles?
 - Special populations (homeless outreach)
 - Expertise
 - Dartmouth → Health Dialog: Preference-sensitive care; others: medical decision making
 - Health Coaching
 - Technology
 - Health hero / buddy
 - Chronic Kidney Disease ++



Ambulatory Care Management / Care Coordination: CM+

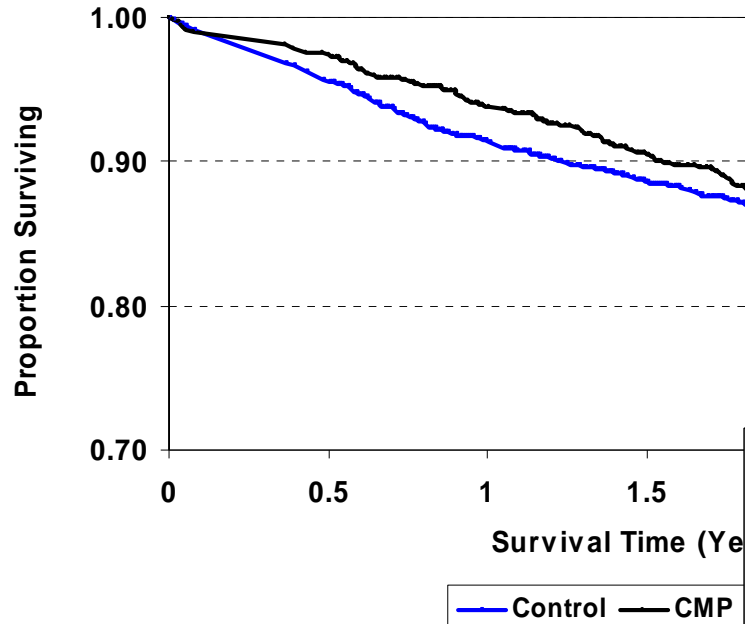
In >50 primary care clinics



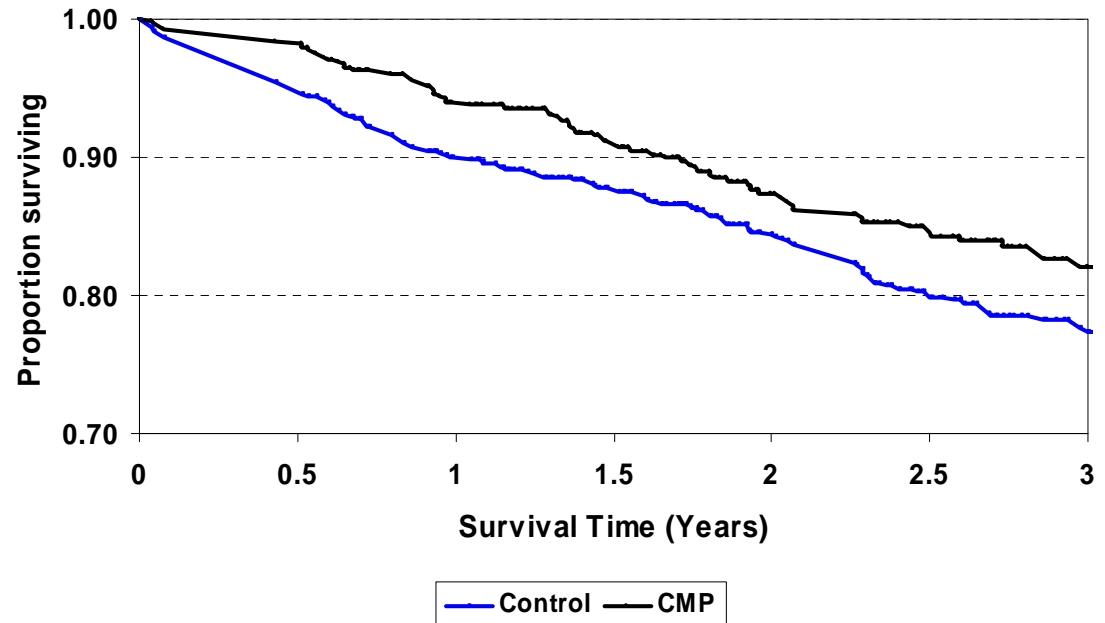
Leads to improvements in patient satisfaction, disease control and...

In CM+, Odds of dying were reduced significantly.

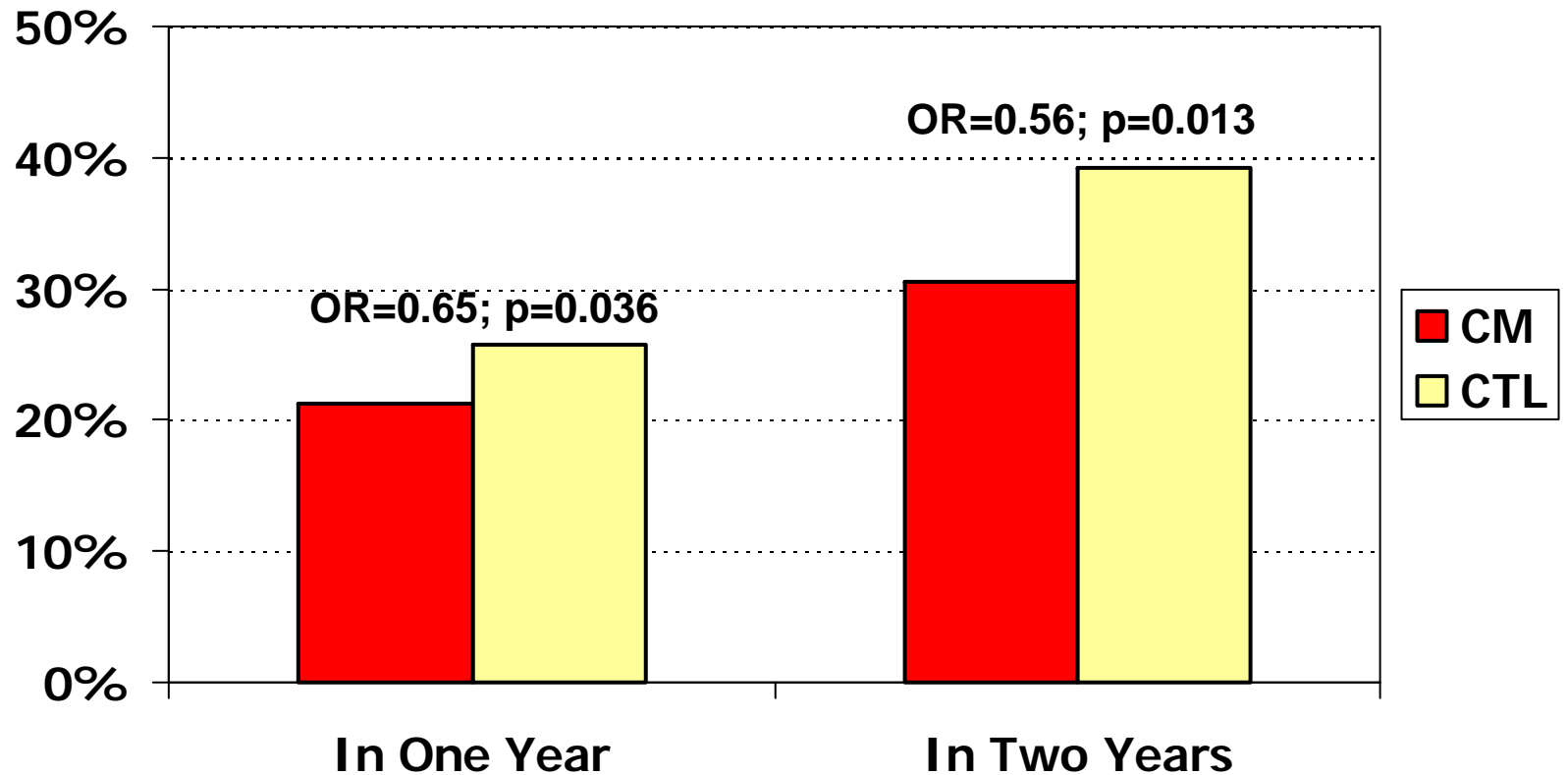
1.a All Patients



1.b Patients with diabetes



Reduction in hospitalizations from CM+



(Back to Model 1)

Reimbursement and Cost Neutrality

Group	% decrease in expenditures	(with costs)
Medicare Coord Care	-2%	+11%
CMP – complex illness	-14%	-7%

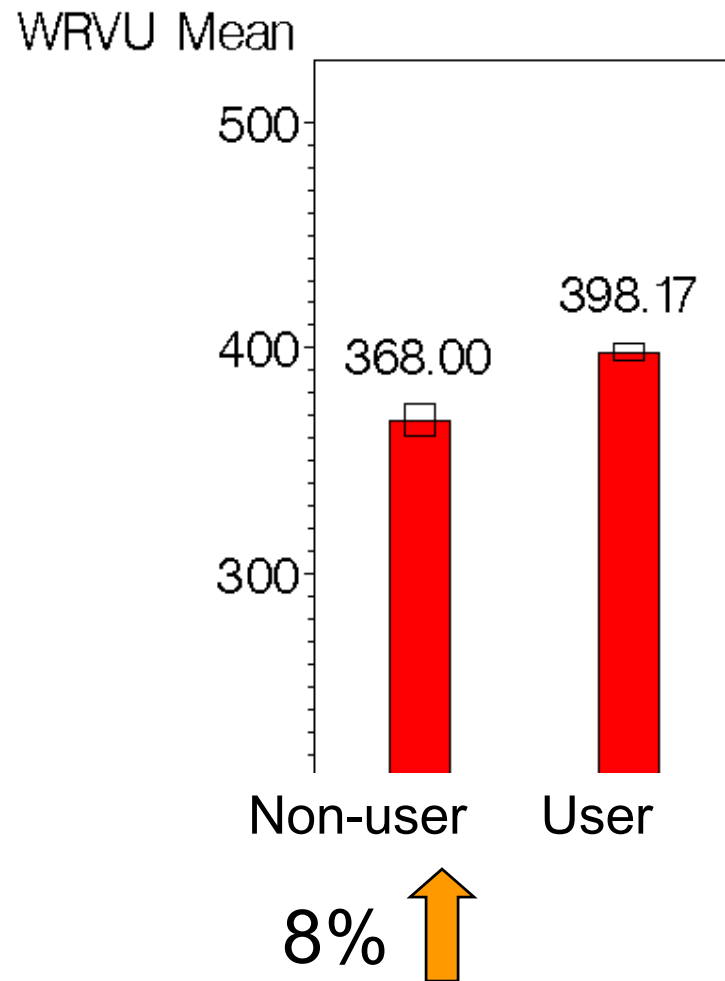
Complex illness: diabetes and other illness; rest were cost neutral

Physicians were more efficient through better documentation, a slight increase in visits, and a change in practice pattern.

- Physicians who referred to care managers:

8% more productive

- Than peers in same clinic

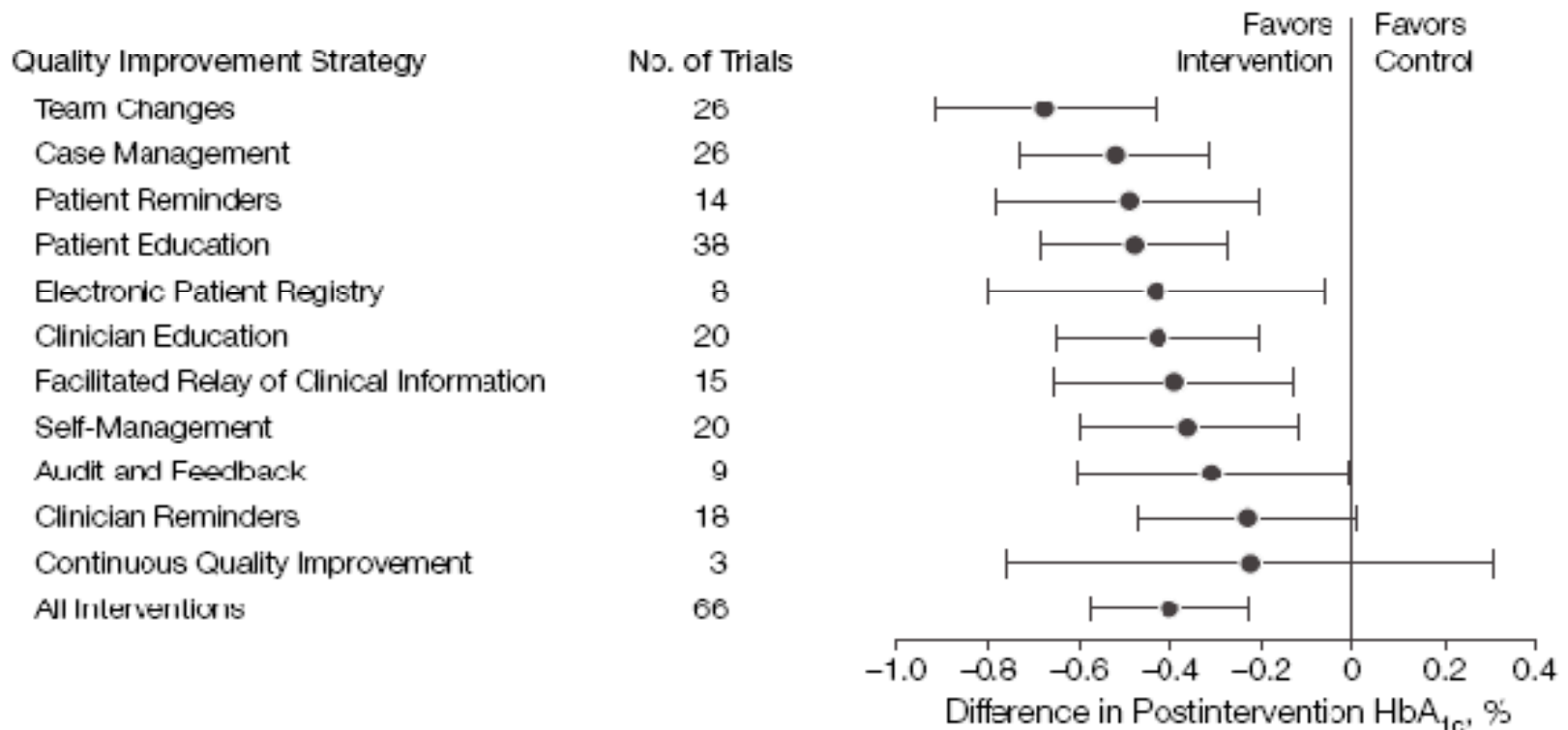


Dorr, AJMC, 2007

Model 3: Redesign, Quality Improvement, and the Medical Home

66 trials of HbA1c reduction in Diabetes

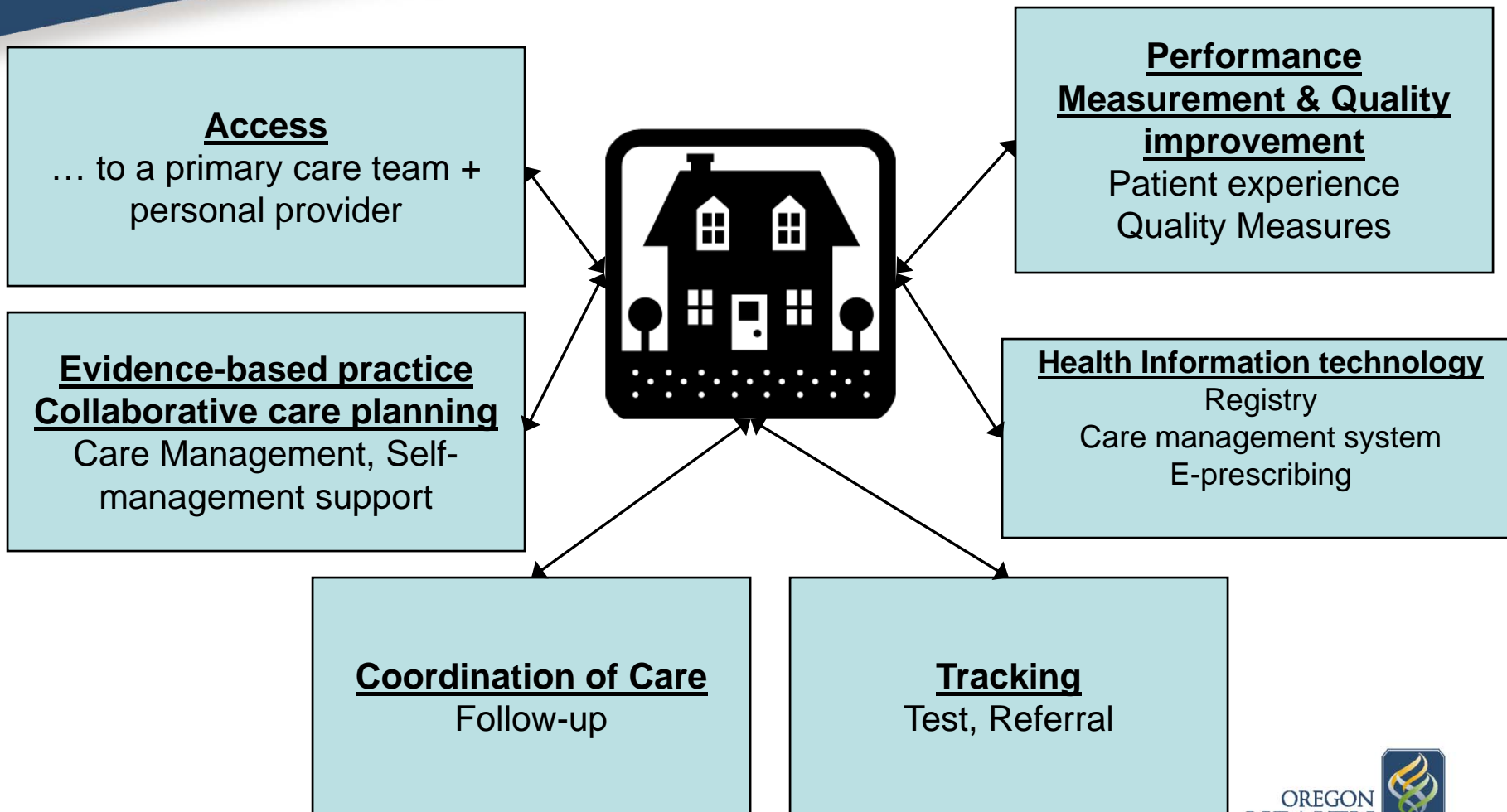
Figure 2. Postintervention Differences in Serum HbA_{1c} Values After Adjustment for Study Bias and Baseline HbA_{1c} Values



Shojania et al, JAMA 2006 vol 296, no 4, p 427

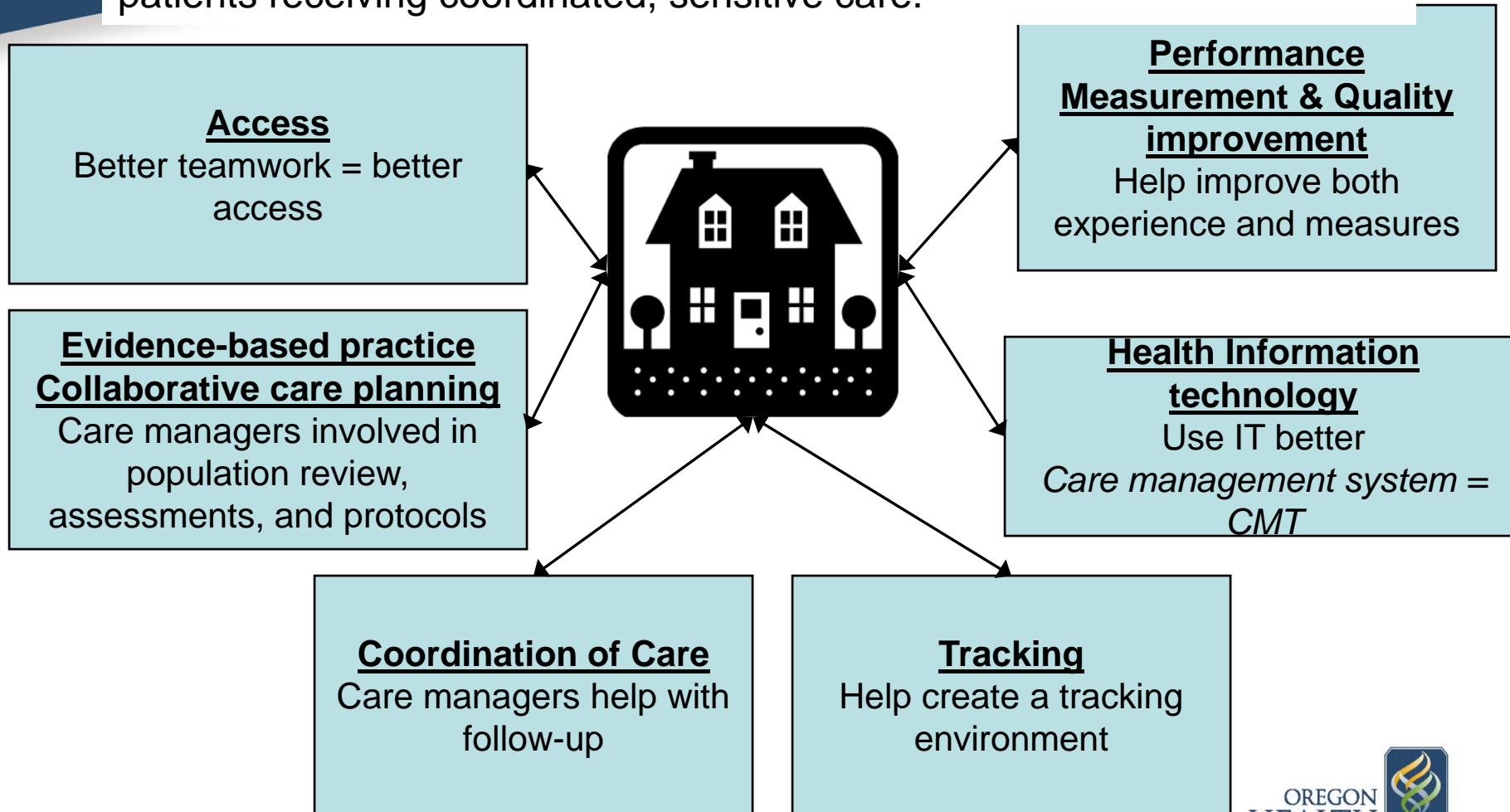
What is a medical home?

Adapted from the NCQA and Joint statement criteria



Care Management Plus (or other care management systems) can help create a medical home.

Care Managers act as a guide, coordinator, and helper to facilitate patients receiving coordinated, sensitive care.



Goals to manage in the Medical Home

Goals	Example elements
Access to and Continuity of Care	Respond to needs for appointment and communication
Patient Monitoring	Assess and track; provide self-management support
Care Coordination / management	Care planning; Coordinate information / referrals
Population Management	Identify 3 populations of interest; use guidelines

Adapted from the CMS / NCQA criteria

Payment Principles (1)

- Reflect value of physician and non-physician staff care management work outside the visit
- Pay for services associated with coordination within the practice, ancillaries, consultants and community resources
- Support adoption and use of health information technology for quality improvement
- Support the provision of enhanced communication such as secure e-mail, telephone consultation

Payment Principles (2)

- Pay for care outside the visit (e.g., Per Member Per Month [PMPM] payment in addition to fee-for-service for office visits)
- Additional payments based on
 - case mix differences
 - savings from reduced hospitalizations
 - achieving measurable improvements/targets

Creating consistent, sustainable models

- 1 part: Population-based care / quality improvement
 - Chronic Care Model improvement techniques
 - Team-based care
- 1 part: Care Management
 - Quality improvement / performance measurement
 - Models
- 1 part: Health Information Technology

TEAM READINESS – 1 part people

The right people on the team with the right training is a core principle.

Patients are taught to self-manage and have a **guide** through the system.

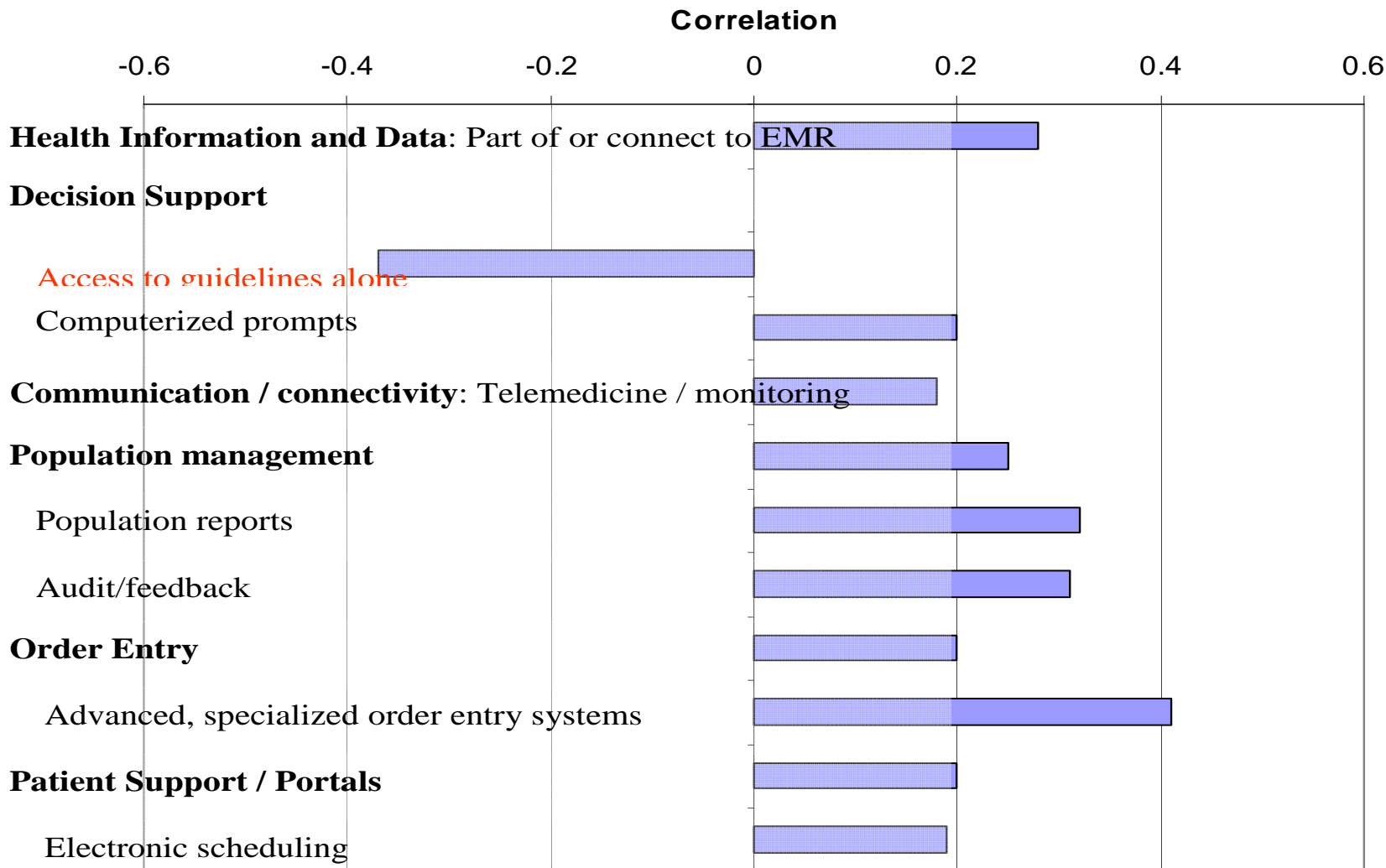
Care managers receive special training in

- Education, motivation/coaching
- Disease specific protocols Care for seniors / Caregiver support
- Connection to community resources

Providers / Other staff:

- Need to participate in protocol development/ implementation / adaptation
- Need to learn about care management (usually from the care managers)

How do we make the models more consistent? 1 part technology



Patient Information

ID Number: Last Name: TEST First Name: TEST DOB: 8/16/1977 * Age: 19-44 Race: Black/African A Sex: M

Phone: (800) 800-8000 Cell Phone: Email: PCP: Allen, Mitch PCP Phone: (800) 888-8888

Insurance: Mailhandlers Facility: ABC Clinic Diab Collaboration FPP: 2.Confused/Chaotic

Date of Referral: 3/30/2004 * Care Mgr: John Status: Active

Patient Search

ID Number:

Last Name:

First Name:

Care Mgr:

Search for Patients

Show All Patients

Diag Date	Diagnosis	Status
	CHF	Active
Edit 3/30/2004	Anxiety	Active
Edit 3/30/2004	Depression	Active

Sched Date	Sched Time	Encounter Type	Status
		Telephone Contact	Pending
		Home Visit	Resolved
Edit 1/26/2005		Telephone Contact	Resolved
Edit 10/18/2004		Telephone Contact	Resolved

MH Packet Date	Symp	Severity	Fctnal	Diff	Dysth.	Q9	Suicide State	Suicide Risk	[Mood 1 2 3]	MoodImp	MoodSx	AnxImp	AnxSx
Edit 1/26/2005	1	3	Somewhat	<input checked="" type="checkbox"/>	0		No Risk						
Edit 9/1/2004	0	4	Not	<input checked="" type="checkbox"/>	0		No Risk		16	45	14	52	
			1. Thoughts Only				Low Risk						

Diab Assess Date

3/4/2005

Diagnosis Encounter Meds MH Instruments Pediatric Assess

Diabetes History Diab Pre/Post Knowledge Assess Patient Goals HF Follow-Up

New Patient Save Patient Delete Patient Generate Clinical Note by Date *

Tracking + Registry

Call

Care Manager Encounter Tickler List

Care Manager: Ann Larsen

Sched. Dt. and Time	Encounter Type	Enc. Reason	MMH	First Name	Last Name	Phone Number	Pri
2/17/04	Telephone Contact	DM F/U				(801)	Wo
2/17/04	Telephone Contact	DM F/U				(801)	Wo
2/17/04	Telephone Contact	DM F/U				(801)	Wo
2/17/04	Telephone Contact	DM F/U				(801)	Wo
2/17/04	Telephone Contact	Depression F/U				(801)	Obi
2/17/04	Telephone Contact	Dep F/U				(801)	Sm
2/17/04	Telephone Contact	DM F/U				(801)	Wo
2/17/04 8:30 AM	CM Office Visit					(801)	Wo
2/17/04 9:00 AM	Class					(801)	Smt
2/17/04 9:00 AM	Class					(801)	Met
2/17/04 9:00 AM	Class					(801)	Obi
2/17/04 9:00 AM	Class					(801)	Wo
2/17/04 10:40 AM	MD Office Visit	DM F/U				(801)	Wo
2/17/04 1:50 PM	MD Office Visit	DM F/U				(801)	Rur
2/17/04 3:00 PM	CM Office Visit					(801)	Wa
2/17/04 3:50 PM	MD Office Visit					(801)	Wo

Population Tickler

Remind about communication tasks

Facilitate the nuts and bolts of teamwork

Before 3/10

5 people

ICP Approve Test

Who if people

Client - do

Home - health

Back - 2-3 who

Turn on 5/1

7-10 days

3 m.

IHC. Also detail

Do. want pay

pm from 8:10-3:30

If from cat office

Dr. McBride











Individual Summarization

Wilcox, Proc of AMIA Symp, 2005

16 November 2006		Patient Worksheet			u1.070 Comprehensive Version
Selected to Print for: All Patients, All Sections, Last Clinical Note					
PATIENT NAME TEST, BED		SEX F	DOB 01/01/1911	MRN# 650730	MRN# 5992114
Problems					
Diabetes Mellitus, Type 2 Hype rlipidem B					
Chronic conditions					
Active Medications					
1. - Glucophage (Metformin HCl), 500mg, Tablet, 1 TABLET, Daily 2. - Simvastatin, 10mg, Tablet, Oral; 1 TABLET, Daily 3. - Lisinopril, 10mg, Tablet, Oral; No dose for 1 day 4. - Calcium Carbonate/Vitamin D (Calcium 500/W-Vitamin D), 500-200, Tablet, 1 TABLET, BID					
Medications					
Allergies					
(+): Penicillins - A Drug Allergies Group; Reaction(s): Rash					
Allergies					
Disease Management					
Functional status					
ADL	Pain Score (0-10)		mMSE		
11/16/2006	5	11/16/2006	4	11/16/2006	24
Preventive Care					
Preventive care summary					
Pap Smear No Data					
Clinical Laboratory Data					
HgbA1c (<=7.0)		U.A. Protein	uAlb/Cr (<=30)	24 Urine Albumin (<=30)	Serum Cr
No Data		No Data	No Data	No Data	No Data
Serum K		Lipid Profile	LDL (<=100)	Trig (<=150)	HDL (>=45)
No Data		No Data	No Data	No Data	No Data
HCT		InCRP	Homocysteine		
No Data		No Data	No Data		
Clinic Data					
Date	Weight	BMI (<=25)	Weight Class	Blood Pressure (<=130/80)	Heart Rate
01/16/2006	144 lbs	23	Normal	01/16/2006 122/74 mmHg	01/16/2006 74
01/11/2005	155 LBS	25			
05/12/2003	50.00 N/A	-			
Last foot exam: 11/2005		Abnormal		Last dilated retinal exam: 11/2005	
Abnormal		Abnormal			
Reminders					
Lab					
[] Creatinine - Patient on Metformin product(s) and no Creatinine on record.					
[] HgbA1C - Urine Albumin Test - LDL - Serum Cr (should be done on all Patients with Diabetes)					
[] HCT - Serum K (should be done on all Patients with Diabetes)					
Procedure					
[] Mammogram - Suggested yearly for women age 40 and above, every 2 years age 50 and above.					
[] Pneumonia - Suggested for all Patients with Diabetes.					
[] Tetanus Immunization - Suggested for all Patients with Diabetes.					
[] DEXA Screening - Suggested for women age 65 and over. Follow-up screening for those treated for osteoporosis recommended every 2-3 years.					
[] Colon Cancer screen - Suggested yearly fecal test or sigmoidoscopy Q 5 years, or colonoscopy Q 10 years.					

Patient self-management

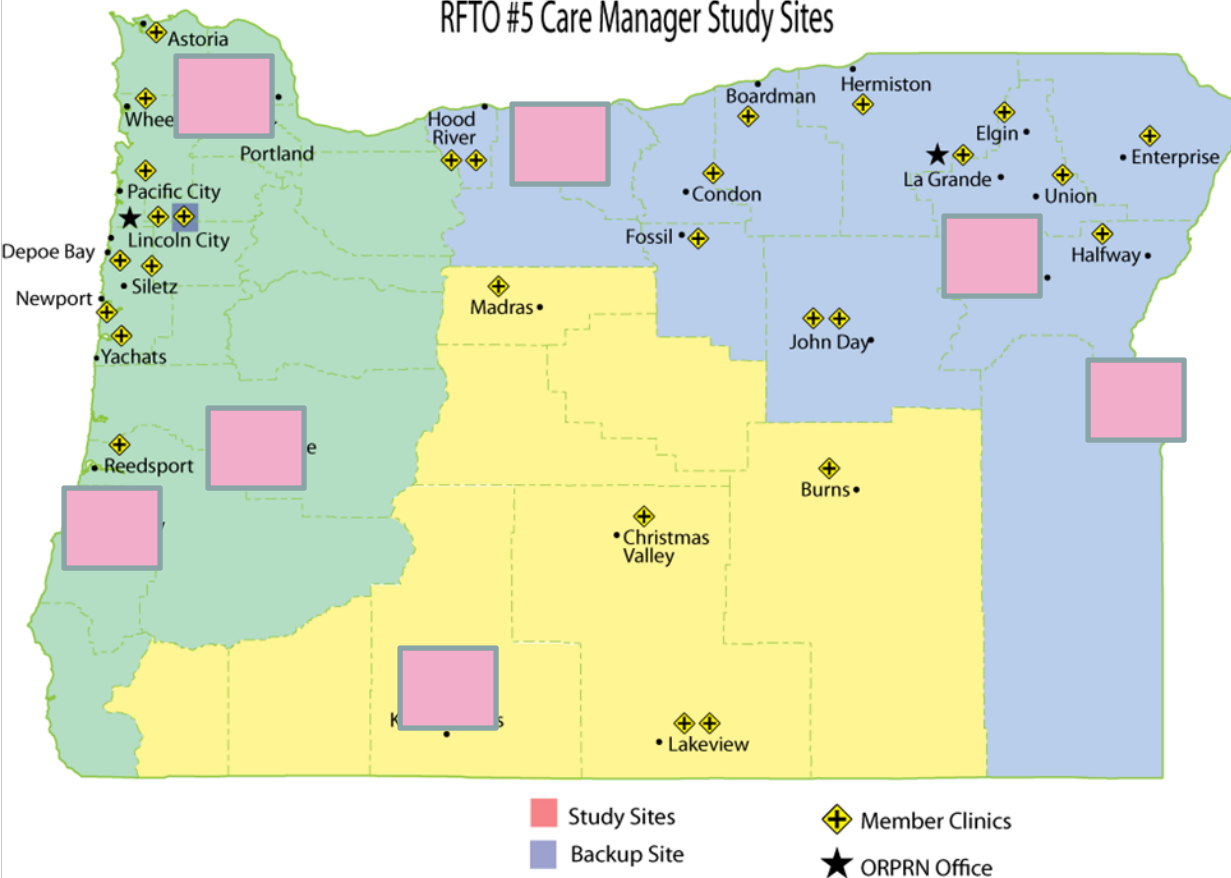
- Educational tools
- Chronic Disease Self - Management Program
- Motivational Interviewing
- Establish understanding
- Monitoring

Diabetes care: The ABCs to better health				
		How often	Ideal level	Your result
	A1c measures blood sugar control <i>Lowering your A1c reduces diabetes complications</i>	Every 3-6 months	less than 7%	8
	Blood pressure control <i>Lowering your blood pressure reduces strokes</i>	Every visit	less than 135/80	35/60
	Cholesterol (LDL) level <i>Lowering your LDL level reduces heart attacks</i>	Every year	less than 100 mg/dl	88
	Diabetes kidney microalbumin test <i>Treating early kidney damage may prevent dialysis</i>	Every year	less than 30 mg/gm	20
	Eye exam: if your last eye exam was abnormal if your last eye exam was normal <i>Detecting early eye damage may prevent blindness</i>	Every year Every 2 years		1/17/2007
	Foot exam <input checked="" type="checkbox"/> observe the feet <input checked="" type="checkbox"/> check pulses <input checked="" type="checkbox"/> test sensation <i>Helps prevent serious foot infections and amputations</i>	Every year		8/6/2007
	Goals for self-management <input checked="" type="checkbox"/> My goal: _____ <i>Helps you better control your diabetes</i>	Every visit		10/30/2006
	Home glucose testing <i>Ask your doctor if this is right for you</i>	Varies		
	Immunizations and Heart Medications <input checked="" type="checkbox"/> Influenza (<i>Flu vaccine</i>) <input checked="" type="checkbox"/> Pneumonia (<i>Pneumovax</i>) <input checked="" type="checkbox"/> Statins and Aspirin - <i>reduce heart attacks</i> <i>Immunizations help prevent serious infections</i>	Every year At least once Daily if needed		
	Just ask for a referral to <input checked="" type="checkbox"/> Diabetes Education Classes <input checked="" type="checkbox"/> Nutrition Counseling <input checked="" type="checkbox"/> Weight Management Programs <input checked="" type="checkbox"/> Smoking Cessation Programs	Varies		

Prepared by the University of Michigan Diabetes Quality Improvement Committee
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Testing care management: Rural collaborative

Oregon Rural Practice-Based Research Network
RFTO #5 Care Manager Study Sites



Early implementation sites
 Treasure Valley Pediatrics
 Klamath Open Door
 MidColumbia Medical Center

Later implementation sites
 Eastern Oregon Medical Associates
 OHSU Scappoose
 North Bend Pediatrics

Practice Redesign

- Team-based care
 - Try teammeeasure.org
- Care Management
 - Training for care managers, protocols, and other resources – caremanagementplus.org
- Collaborations with other practices / organizations
 - TransforMed.com ;
www.commonwealthfund.org

Opportunities and Challenges

- **Care management**
 - Connection / coordination – for those at risk
 - Efficiency – improving clinic processes
 - New Models of care ... to address long-term scope of work and orientation
- **Opportunities**
 - New medical home demonstrations
 - Demonstrating benefit of your clinic to payers (care managers, consistency, measurement)
- **Challenges**
 - Staffing (look within; improved job satisfaction)
 - Inertia (think of efficiency)
 - Costs (many free components)

Thanks! The Care Management Plus Team

- OHSU

- David Dorr, MD, MS
- K. John McConnell, PhD
- Kelli Radican
- Hanh Tran
- Rachel Burdon
- Nima Behkami

- Intermountain Healthcare

- Cherie Brunner, MD
- Liza Widmier
- Mary Carpenter

Advisory board

- Tom Bodenheimer
- Steve Counsell
- Eric Coleman
- Cheryl Schraeder
- Heather Young

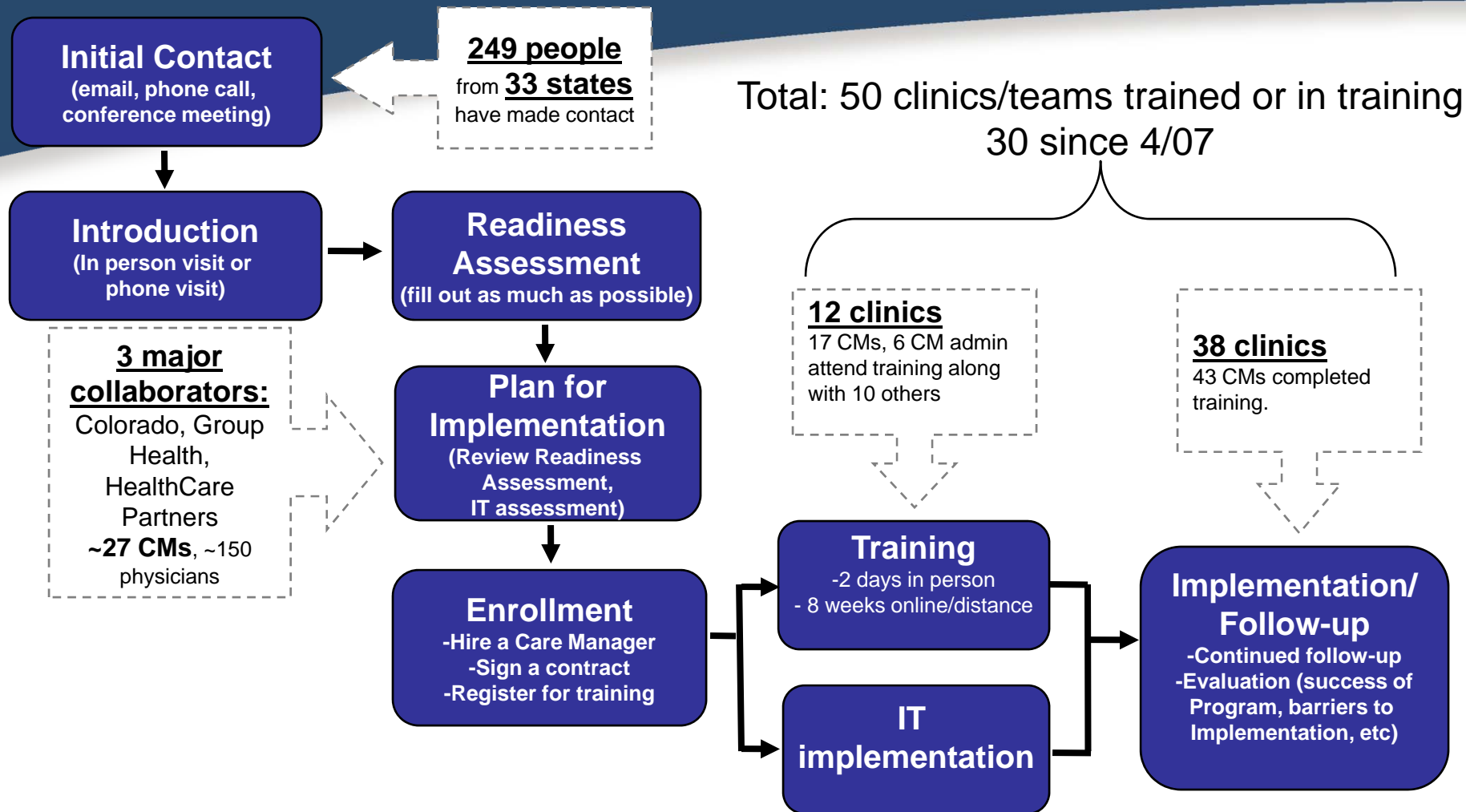
Informatics

- Adam Wilcox, PhD

Our next training : Summer 2009 (yes, it is free)
Technology and materials @ caremanagementplus.org

Additional details

Dissemination of CMP



Chronic care model: results

