

Update in care management, health care reform, and health information technology : CM+ perspective

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More information at caremanagementplus.org

Overview

- **Care Management Plus** is a model that enables care managers and primary care teams to better care for patients at-risk.
- **Training** focuses on priorities, roles, responsibilities and skills
- Better **technology** (and better use) is a crucial component.
- **Outcomes** show reduced hospitalizations, deaths, improved quality, and improved satisfaction.
- **Dissemination** (to over 150 teams) requires a stepped approach with consideration of adaptation and fidelity.

The logo consists of the letters 'CM' in white and a yellow plus sign on a dark blue background.The text 'care management plus' is written in a dark blue, sans-serif font on a white background.

- Oregon Health & Science University
 - David Dorr, PI
 - Kelli Radican
 - Susan Butterworth
 - Nima Behkami
 - Marsha Pierre-Jacques Williams
 - Gwenivere Olsen
 - Molly King
 - Cara Heisler
- Columbia University
 - Adam Wilcox
- Intermountain Healthcare
 - Cherie Brunker, Co-PI (UU)
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- Advisory Board
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 - Cheryl Schraeder
 - Heather Young
 - Steven Counsell
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Case

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.

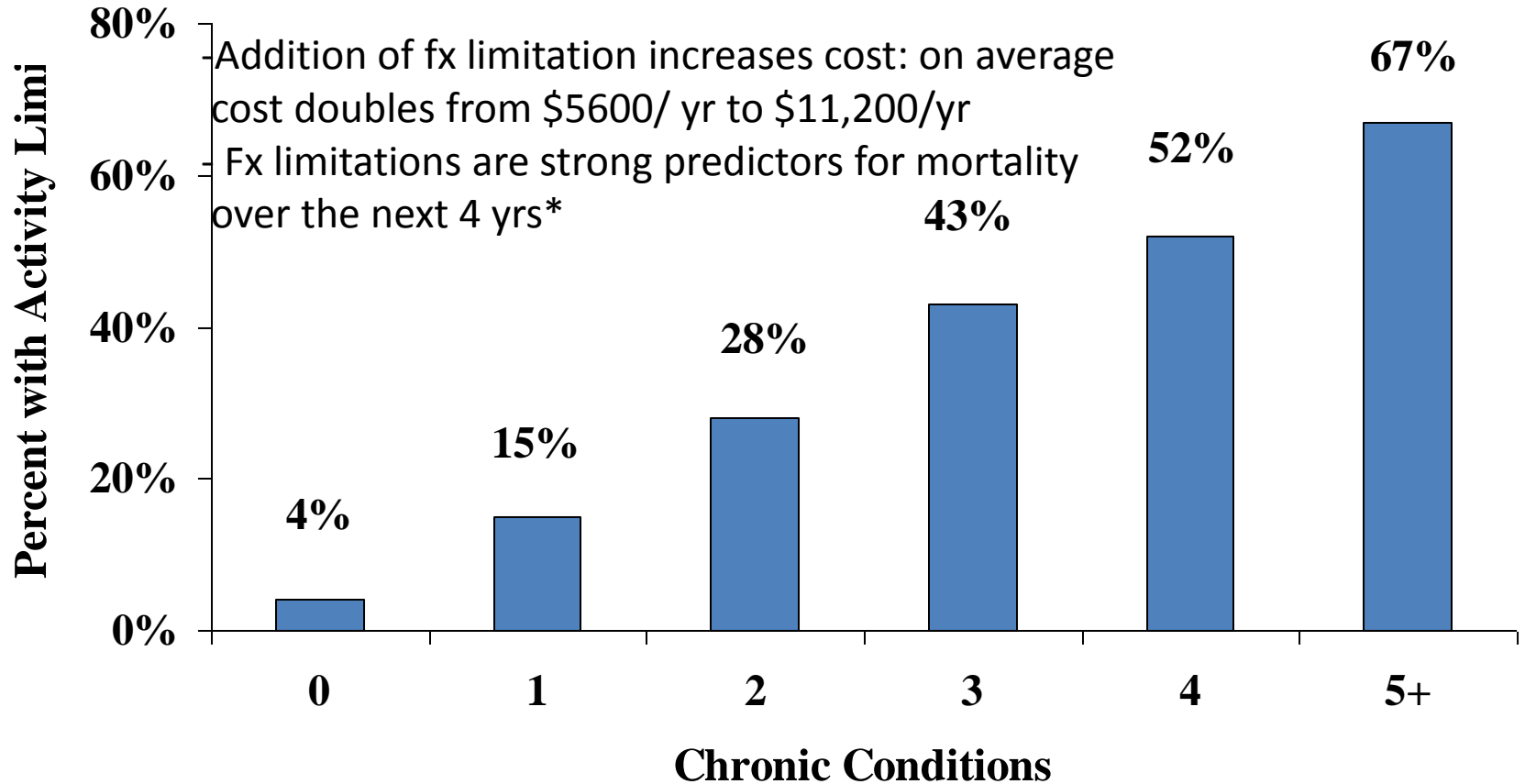
Ms. Viera's office visit

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?

Activity Limitations by Number of Chronic Conditions



Source: G. Anderson, "Hospitals and Chronic Care", PowerPoint Presentation to the American Hospital Association. Partnership for Solutions. 16 June 2004.

S. Lee, "Development and Validation of a Prognostic Index for 4-Yer Mortality in Older Adults" JAMA. 2006;295(7):801-808.

Past: Heroism in the face of multiple illnesses

- Multiple diseases increase risk and coordination *exponentially* (5+ : 90 x risk of hospitalization; 10x prescriptions; 13 providers vs. 2)
- To manage preventive and chronic illnesses in a primary care panel: 18 hours a day
- Patients with multiple illnesses *better* process quality scores but *worse* 'preventable' hospitalizations

A fundamental issue in health reform

Variations in Spending: Is More Always Better?

Effective Care: *benefit clear for all*

Reperfusion in 12 hours (Heart attack)

Aspirin at admission (Heart attack)

Mammogram, Women 65-69

Pap Smear, Women 65+

Pneumococcal Immunization (ever)

Preference Sensitive: *values matter*

Total Hip Replacement

Total Knee Replacement

Back Surgery

CABG following heart attack

Supply sensitive: *often avoidable care*

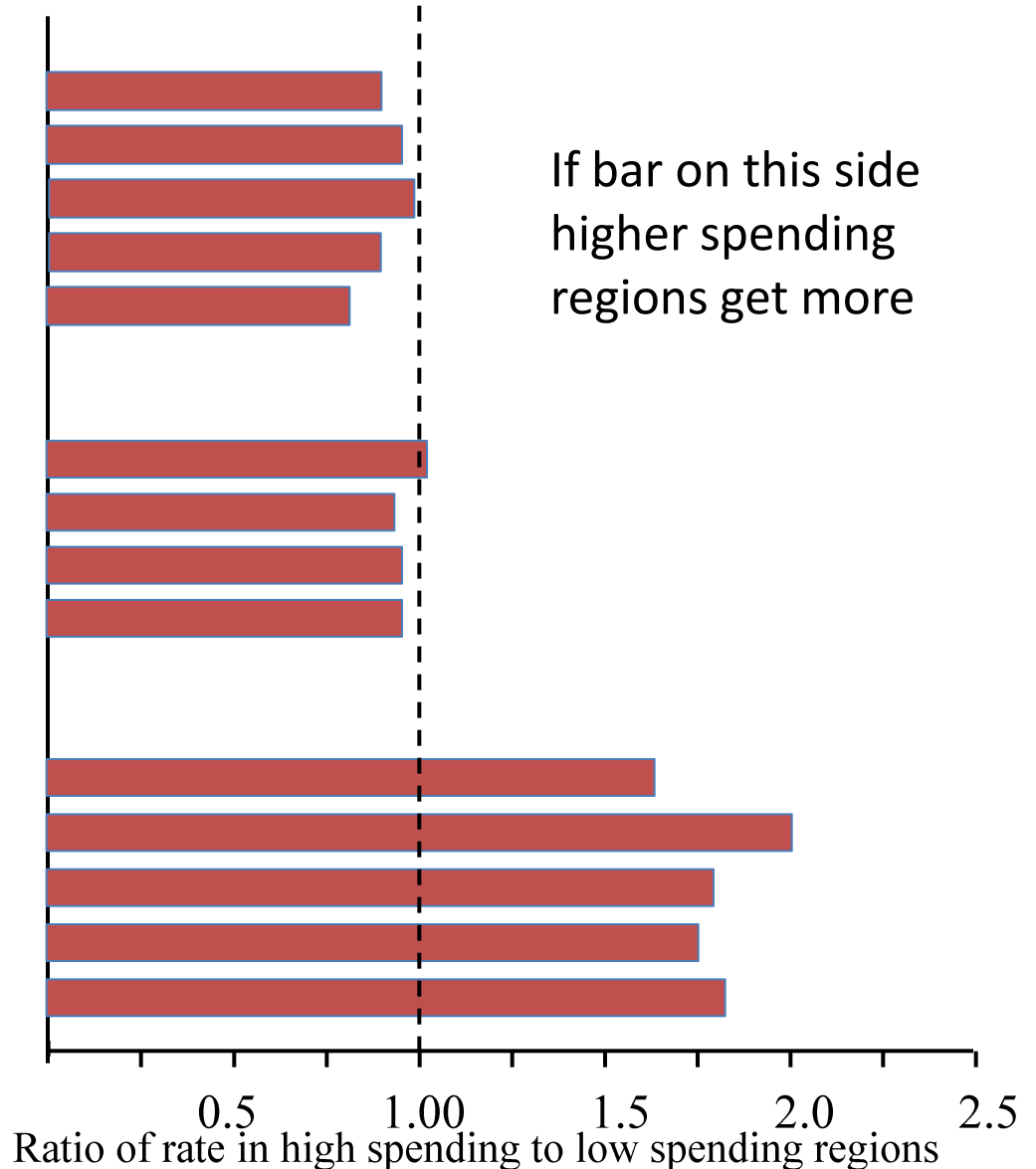
Total Inpatient Days

Inpatient Days in ICU or CCU

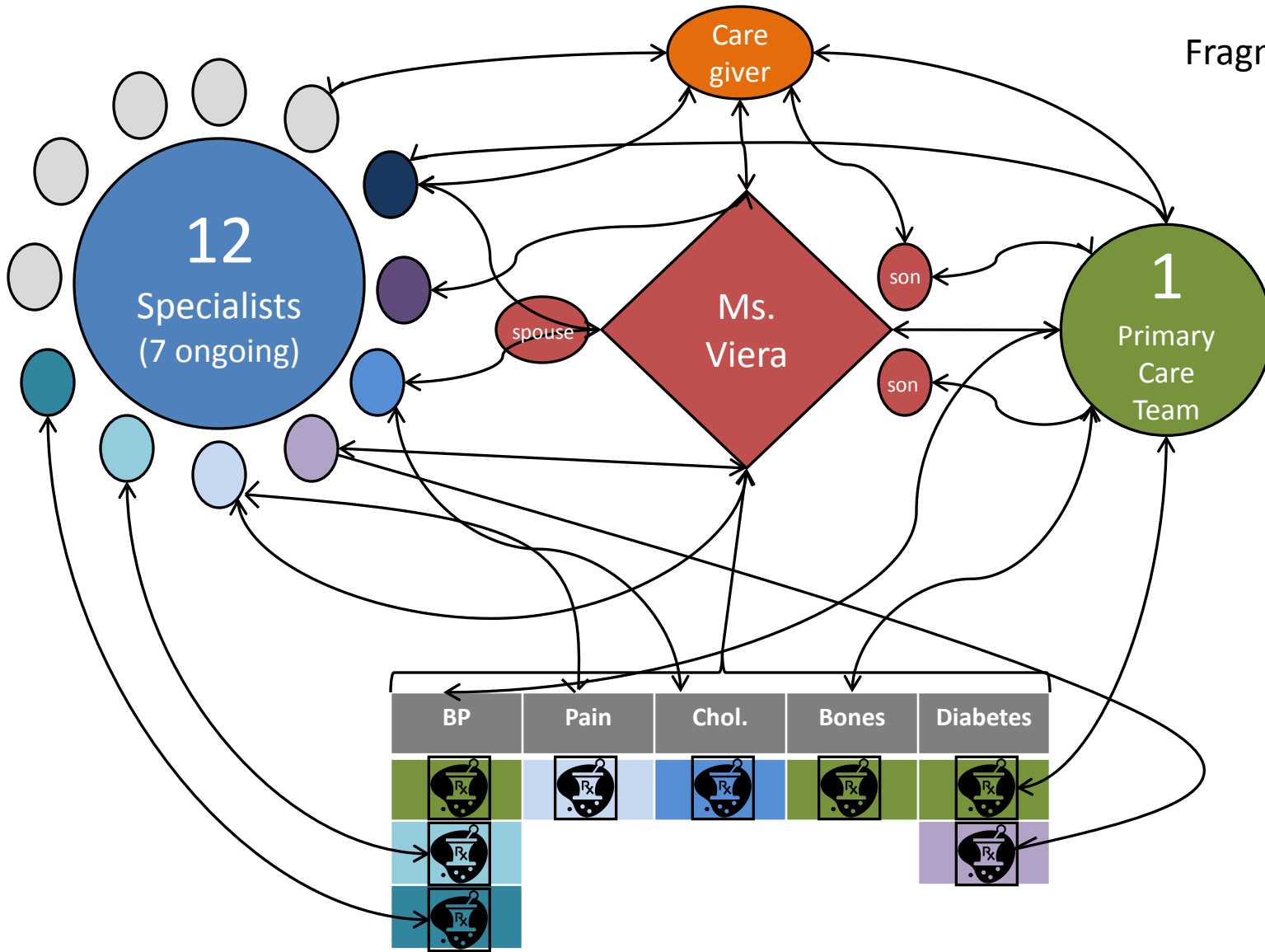
Evaluation and Management (visits)

Imaging

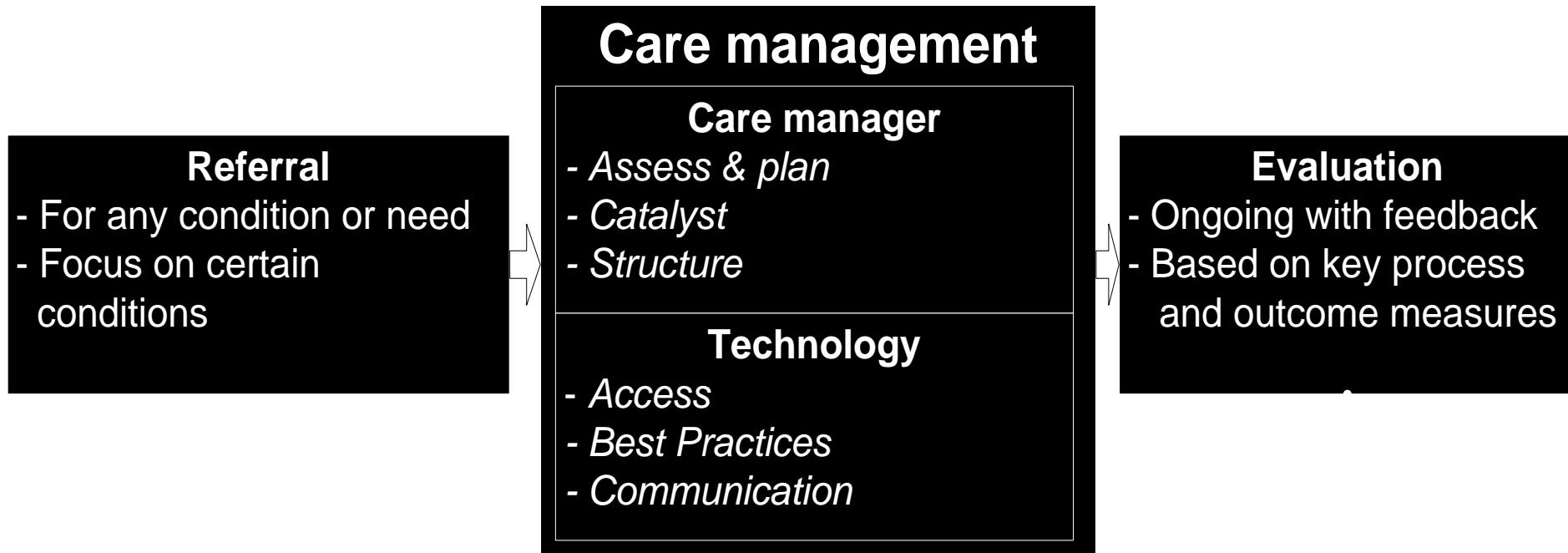
Diagnostic Tests



Fragmentation of care



Intervention: Care Management Plus



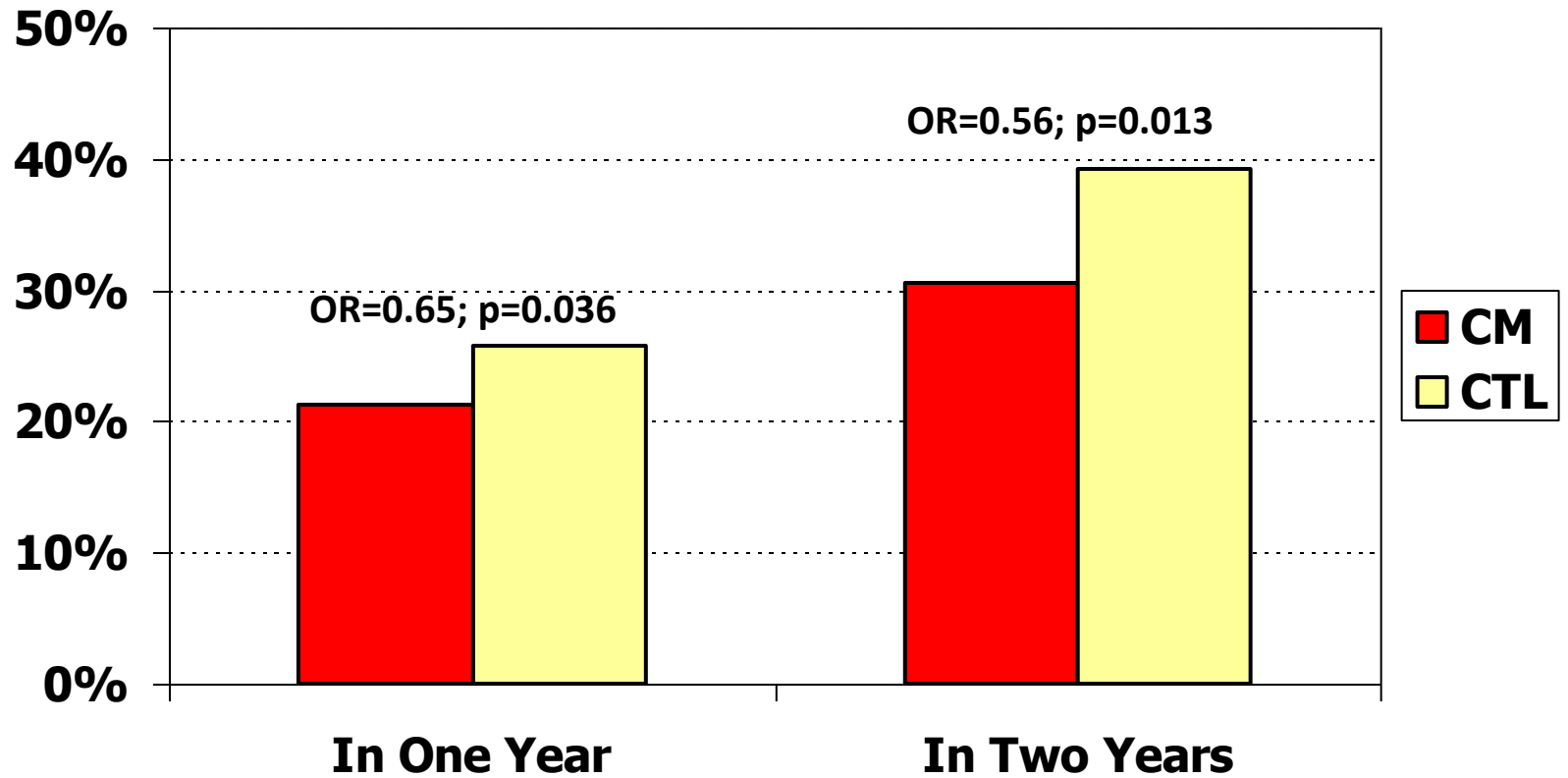
Larger infrastructure: Electronic Health Record, quality focus

Results from CM+

In CM+, Odds of dying were reduced by 20-40%.

Variable	Time	CM+	Control	Difference
All Patients		(N=1,144)	(N=2,288)	
	at 1 year	6.5%	9.2%	-2.7%
Deaths	at 2 years	13.1%	16.6%	-3.5%
Multiple illnesses		(N=557)	(N=1114)	
	at 1 year	6.2%	10.6%	-4.4%
Deaths	at 2 years	12.9%	18.2%	-5.3%

Reduction in hospitalizations from CM+

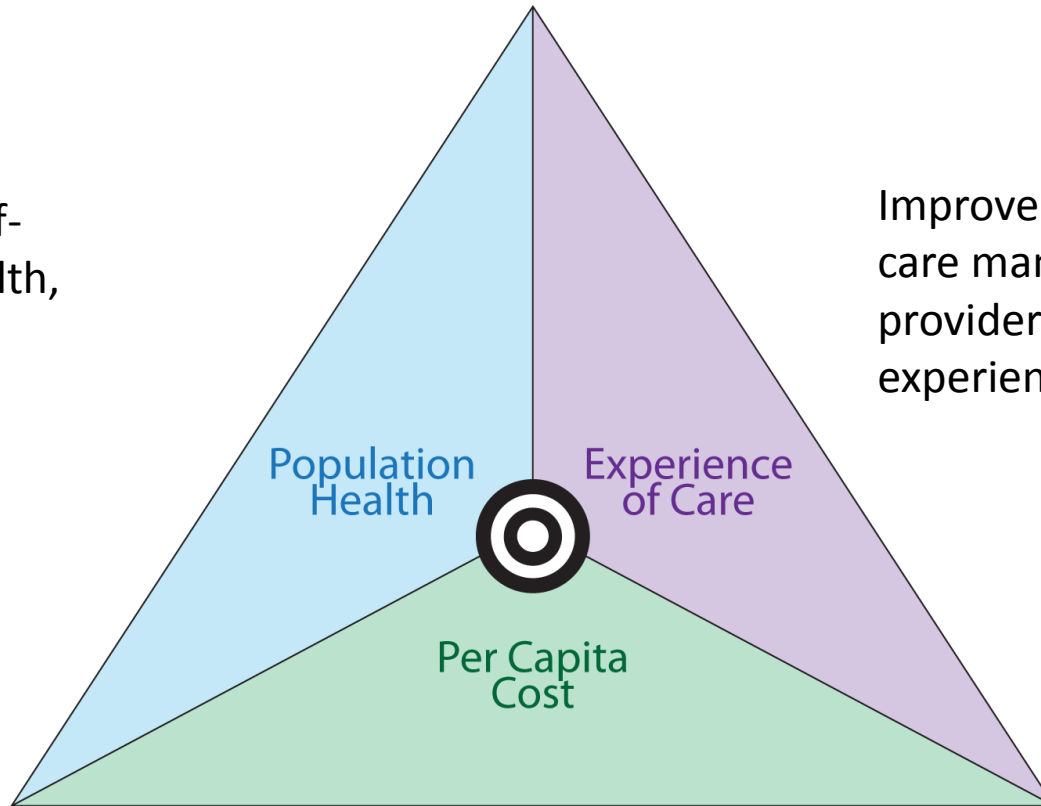


Summary of studies from CM+

The TRIPLE aim of health care

Improved self-reported health, diabetes, depression outcomes

Improved patient, care manager, and provider experience



Reduction in hospitalizations, cost

Results from targeted redesign

EXHIBIT 4

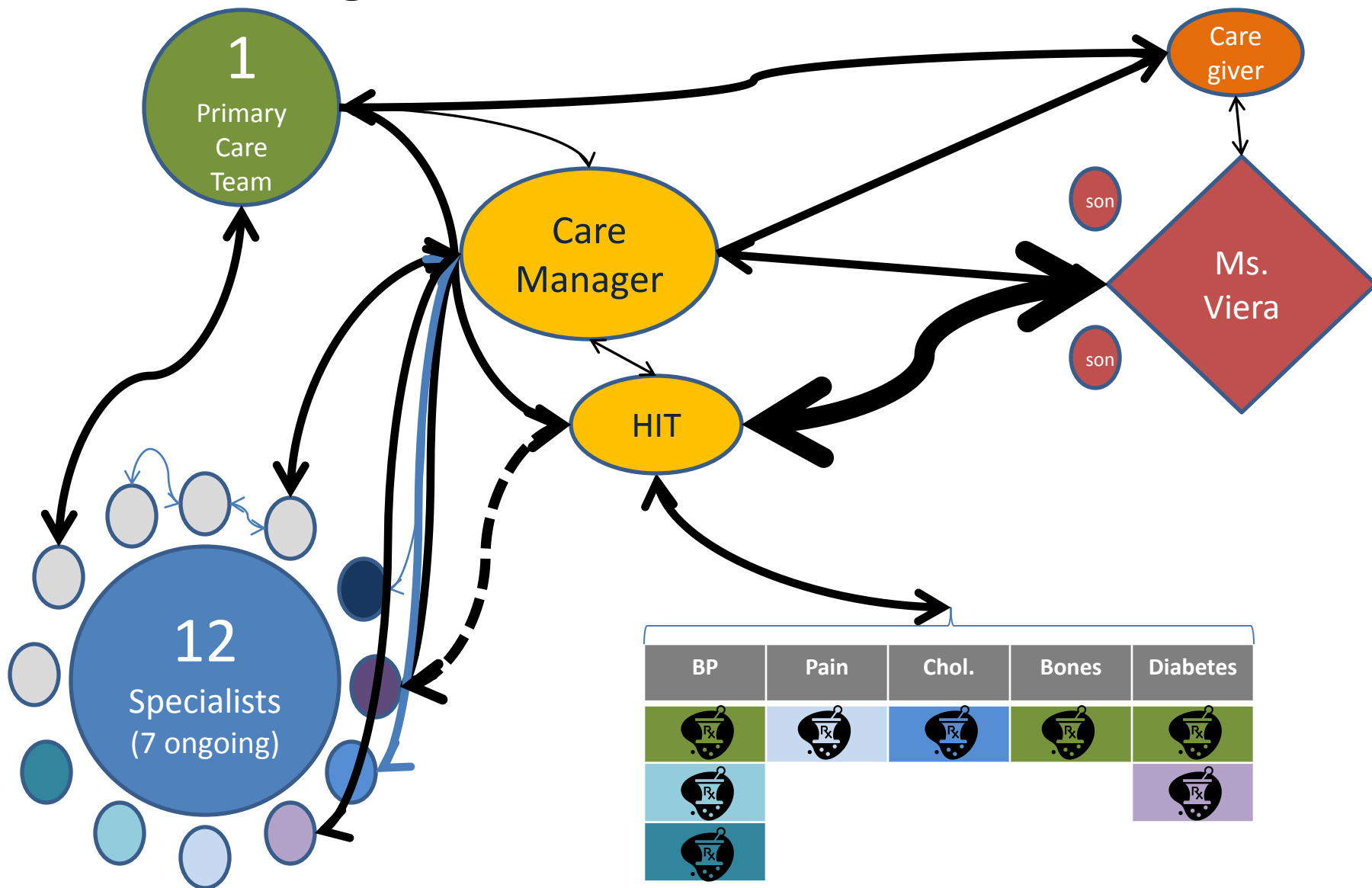
Annual Outcomes For Seven Medical Home Demonstrations

	Hospitalization reduction (%)	ER visit reduction (%)	Total savings per patient (\$)
Colorado	18	-	169-530 ^a
Geisinger	15	-	-
Group Health ^b	11	29	71
Intermountain	4.8-19.2 ^c	0-7.3 ^d	640
North Carolina	40 ^e	16	516 ^f
North Dakota	6	24	530
Vermont ^g	11	12	215

Model consistencies

- Care coordinator / care manager
- Integration with primary care team
- Improved access
- Access to real-time, population-based data
- Changed incentives

What changes with CM+ and other new models?



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 (**all staff included**)
- Care for seniors / Caregiver support
- Connection to community resources

Our care managers are currently 90% RNs; other
models are possible.

Curriculum Content

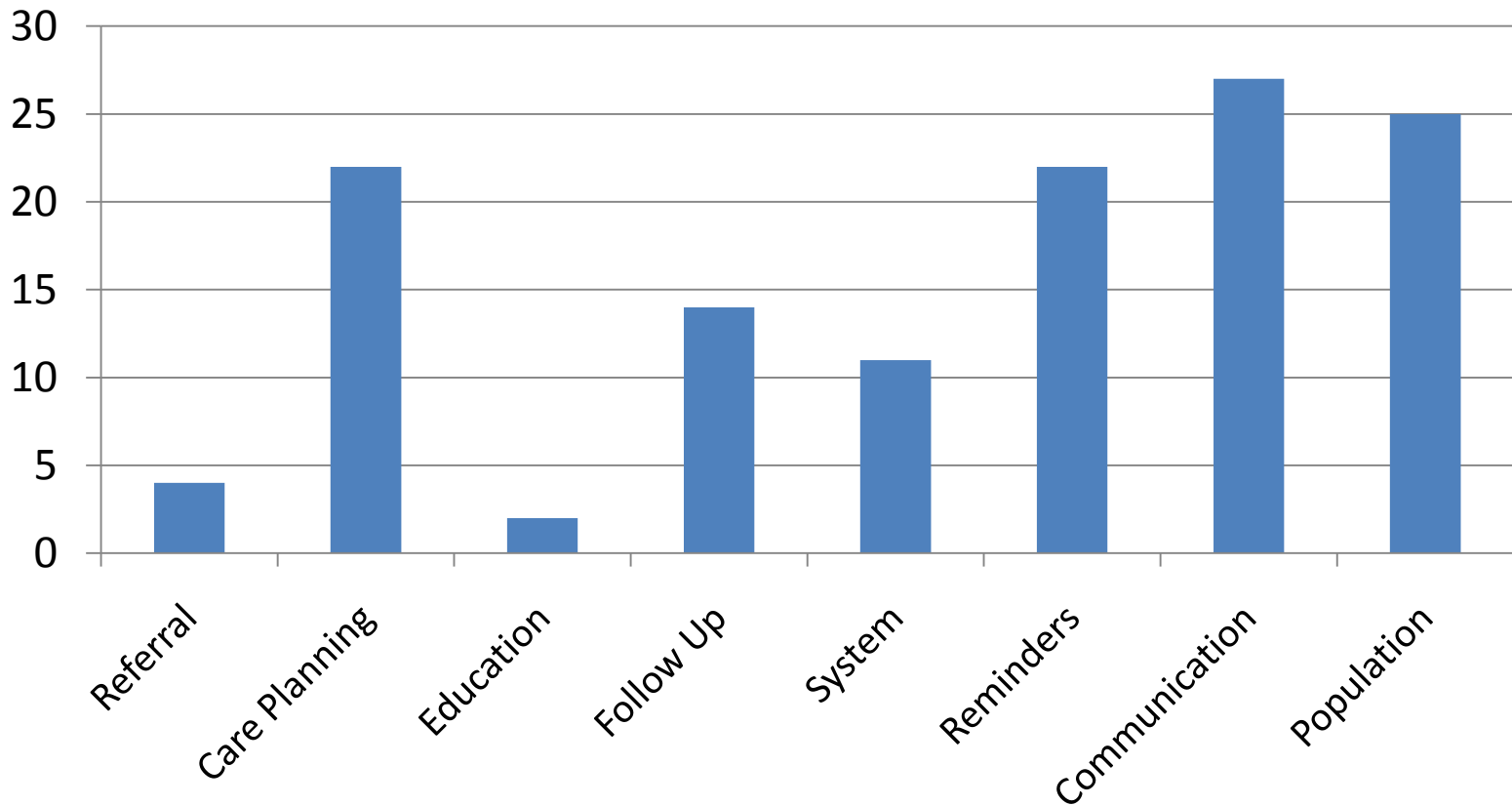
Topical Area	Delivery Strategy	Methods
Orientation, Role, Technology training, Motivational interviewing	~10 hours in person (divided)	Power point presentation; Case examples, role playing
Managing Chronic Illnesses Mental Health Issues Senior Patient Management	On-Line (~10 hours, divided) Case studies	Asynchronous and Synchronous faculty discussion. Posted power-point slides.
Community Resource Acquisition Final Case Study	In-Person Seminar	Internet search activities Case Study Presentations

“Hello, Computer”



Most EHRs, as implemented, STILL don't have necessary functions

Additional Care Management elements requested from 7 teams with EHRs



Quality measure dashboard

Summary Graphs: **Breakouts by Measure:**

-Prevention- -Diabetes- -Asthma- -CAD- -Hypertension-

DIABETES

Team Name	A1c < 7.0% (18+): Target Score: 52%		LDL: Target Score: 55%		Pneumovax: Target Score: 75%	
	Score	N	Score	N	Score	N
OHSU GIM		52% 201		57% 201		70% 200
Cascade		50% 201		57% 201		76% 200
Diamond		46% 263		59% 263		61% 263
Hart		54% 201		55% 201		69% 201
Hood		54% 261		62% 261		78% 261
River		52% 215		53% 215		64% 215
Tabor		68% 31		42% 31		97% 31

Dashboard can be run by clinic, team, or individual PCP

ICCIS Interactive Quality Reports

Selected Measure: Diabetics with hemoglobin A1c measured in the past 6 months (18-75)

Total: 7

[Print](#)

Value Adherence Rate: 57.143%

Date Adherence Rate: 85.714%

Update									
No Longer in Practice	Assign to CM Task	Patient	Phone	Physician	Lab	Lab Result	Lab Date	Exclude from ALL Diabetes	Exclude from this Measure ONLY
<input type="checkbox"/>	<input type="checkbox"/>	Binnes, Harry	9874584587	Parnel Fieldman	A1C	9.1	10/06/2009	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Cline, bobby	987.546.7765	Hillary Caseman	A1C	6.1	09/30/2009	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Gibbs, Jenny		Carl Generic				<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Holden, Henry		Carl Generic	A1C	7.7	10/06/2009	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Montoya, Jerry	124.256.3526	Hillary Caseman	A1C	5.9	10/02/2009	<input type="checkbox"/>	<input type="checkbox"/>

The abilities to document exclusions at multiple levels and generate targeted population-based review cycles avoid the problems caused by static quality reports and allow providers to efficiently focus outreach efforts on high risk populations.

ICCIS Care Coordination Workflow

Care Manager Encounter Tickler List

Care Manager: <----- All -----> d Date: 11/23/2009 12/23/2009 Run

Care Manager: All Care Managers
For Time Period: 11/23/2008 to 12/23/2009

	Scheduled Date	Scheduled Time	Encounter Type	Reason	EHR ID	First Name	Last Name	Phone	PCP	Notes
Select	2009-12-18		Telephone Contact	Clinical Protocol(s)	4582317	Mariah	Bouchard	456.732.5236	Carl Generic	Quality Measure: Age PHQ2: 0 Lab Date: 12/01/2009
Select	2009-12-17	08:00	Telephone Contact	Goals	4582317	Mariah	Bouchard	456.732.5236	Carl Generic	PHQ9 Follow-Up:
Select	2009-11-16	13:00	CM Office Visit	Status Check	88888888	zzzzbugs	zzzzbunny			Meet with family and patient to discuss care plan
Select	2009-11-28		CM Office Visit	Clinical Protocol(s)	4582317	Mariah	Bouchard	456.732.5236	Carl Generic	
Select	2009-11-16	13:00	CM Office Visit	Status Check	88888888	zzzzbugs	zzzzbunny			Meet with family and patient to discuss care plan
Select	2009-11-12	12:00	CM Office Visit	Status Check	99999999	ZZDavid	ZZowen			Meet with Patient and family members to discuss a care plan
Select	2009-10-30	10:00	Care Conference	Diabetes	88888888	zzzzbugs	zzzzbunny			
Select	2009-10-21	08:00	Telephone Contact	Goals	65748398	bobby	Cline	987.546.7765	Hillary Caseman	Goals Follow-Up:
Select	2009-10-10	08:30	Home Visit	Functional Status	1324234	Harry	Binnes	9874584587	Parnel Fieldman	Goals Follow-Up: Nutrition: eat less;

A centralized reminder list of tasks and communications that were proactively planned but incomplete allows population-based tasks to be merged with individual encounter tasks.

Patient Worksheet					
Binnes, Harry				PRINT	
MRN: 1324234		Sex: M	DOB: 01/24/1956		
Phone: 9874584587		PCP: Parnel Fieldman			
Care Manager: Susie Example			Caregiver:		
Next Care Management Encounter			Last Care Management Encounter		
Sched Date	Sched Time	Encounter Type	Sched Date	Sched Time	Encounter Type
01/06/2010	09:00 AM	CM Office Visit	12/04/2009	08:00 AM	Telephone Contact
Diagnoses					
Diabetes, Cystic Fibrosis, Anemia					
Medications					
Medication	Dosage	PRN	Med Start Date		
albuterol		<input type="checkbox"/>	08/07/2008		
Goals					
Status	Follow Up Date	Goal	Note	score	Set Date
Completed	12/21/2009	Nutrition		10	12/05/2009
Completed	12/21/2009	Activity		5	12/05/2009
Completed	11/13/2009	Activity		6	11/13/2009
Completed	11/13/2009	Nutrition		8	11/13/2009
Pending		Meds			10/06/2009
PHQ					
Date	PH2 Score	PHQ9 - Severity	Q9 Suicide	Followup	
12/02/2009	6	25	3		
11/05/2009	3	17	3	12/04/2009	
07/07/2009		10	2		
07/02/2009			0		
Functional Status					
Date	ADL	IADL	MMSE	Pain	
07/08/2009			2	9	
12/11/2009					
Care Actions					
Diabetes	Date/Value	Status	Preventative Care	Date/Value	Status

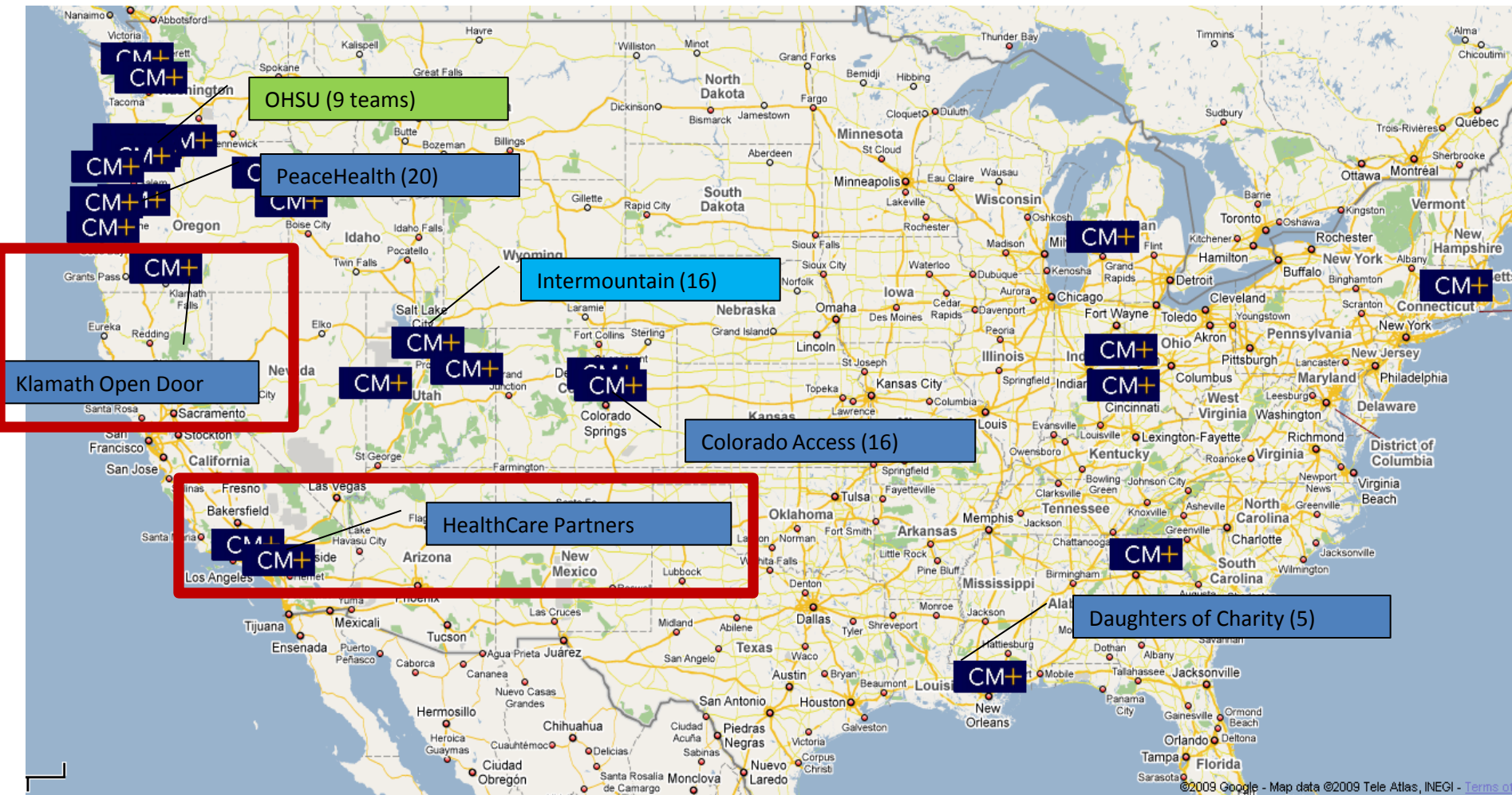
Patient Worksheet

When working with persons with multiple illnesses or complex illness, a clinical summary that captures a core set of information improves patient outcomes (1). Care coordination and behavioral modification (goal setting) elements often require special effort and the quality summary requires more advanced monitoring and implementation than most standard EHRs provide.

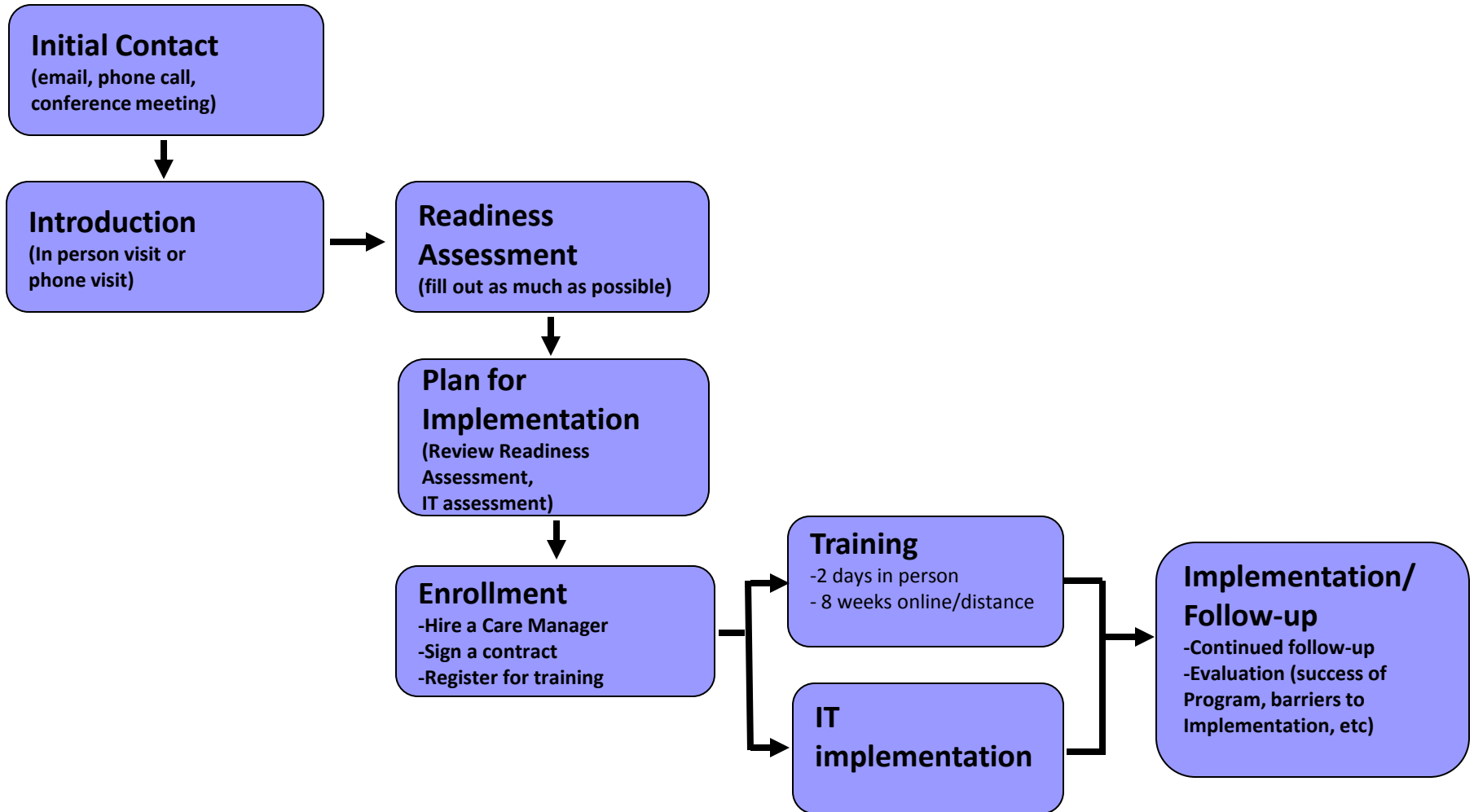
Care Actions

Diabetes	Date/Value	Status	Preventative Care	Date/Value	Status
A1c in Last 6 mo	10/06/2009	OK	Patient > 50 needs flu shot at least once		YES
A1c < 7	9.1	A1c out of Range			
LDL Last Year	09/30/2009	OK			
LDL < 100	130	LDL HIGH			
Last Doctor's Visit is not available					

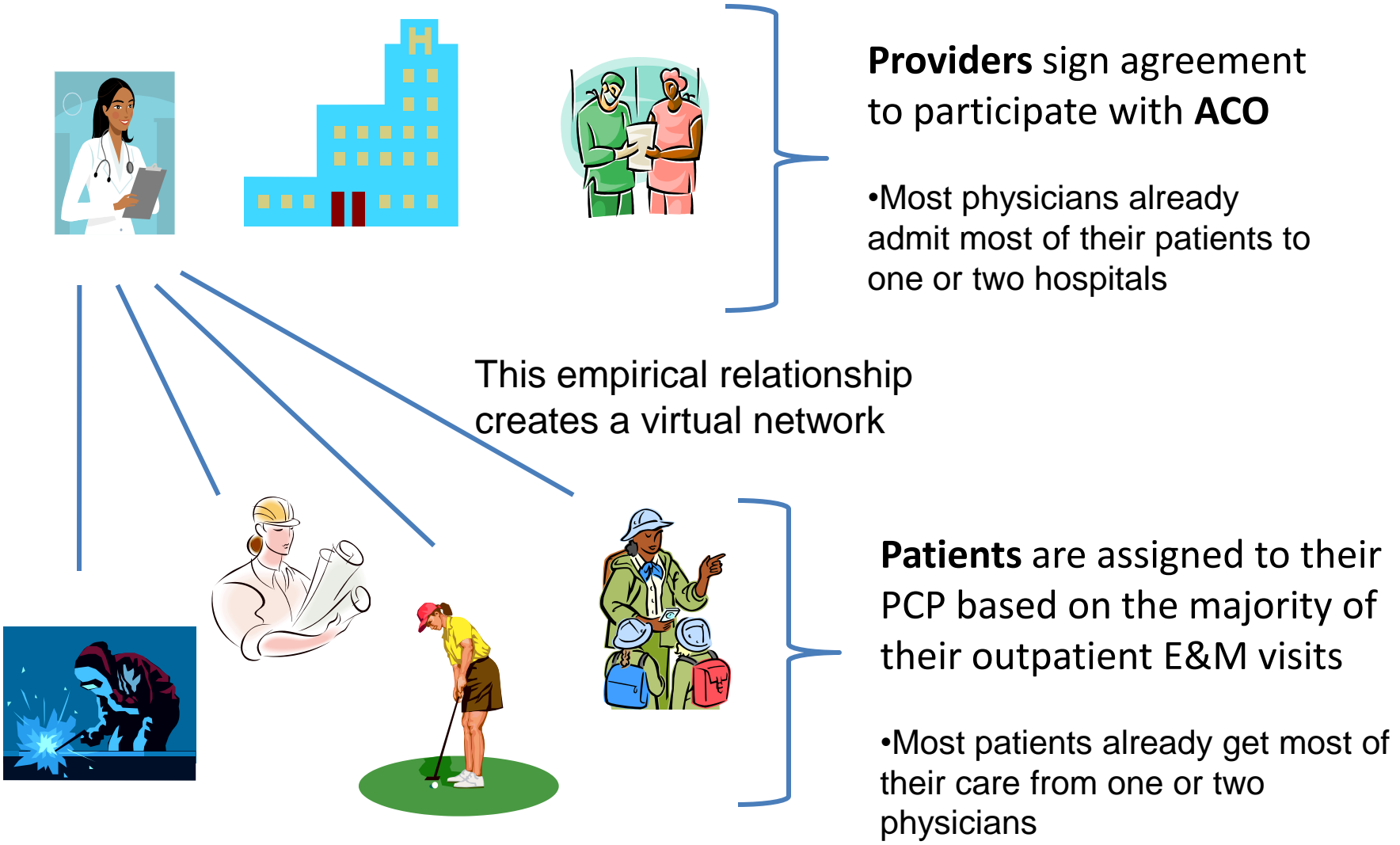
What have we learned about dissemination in rolling out the program to over 150 clinical teams?



Steps to Implementation

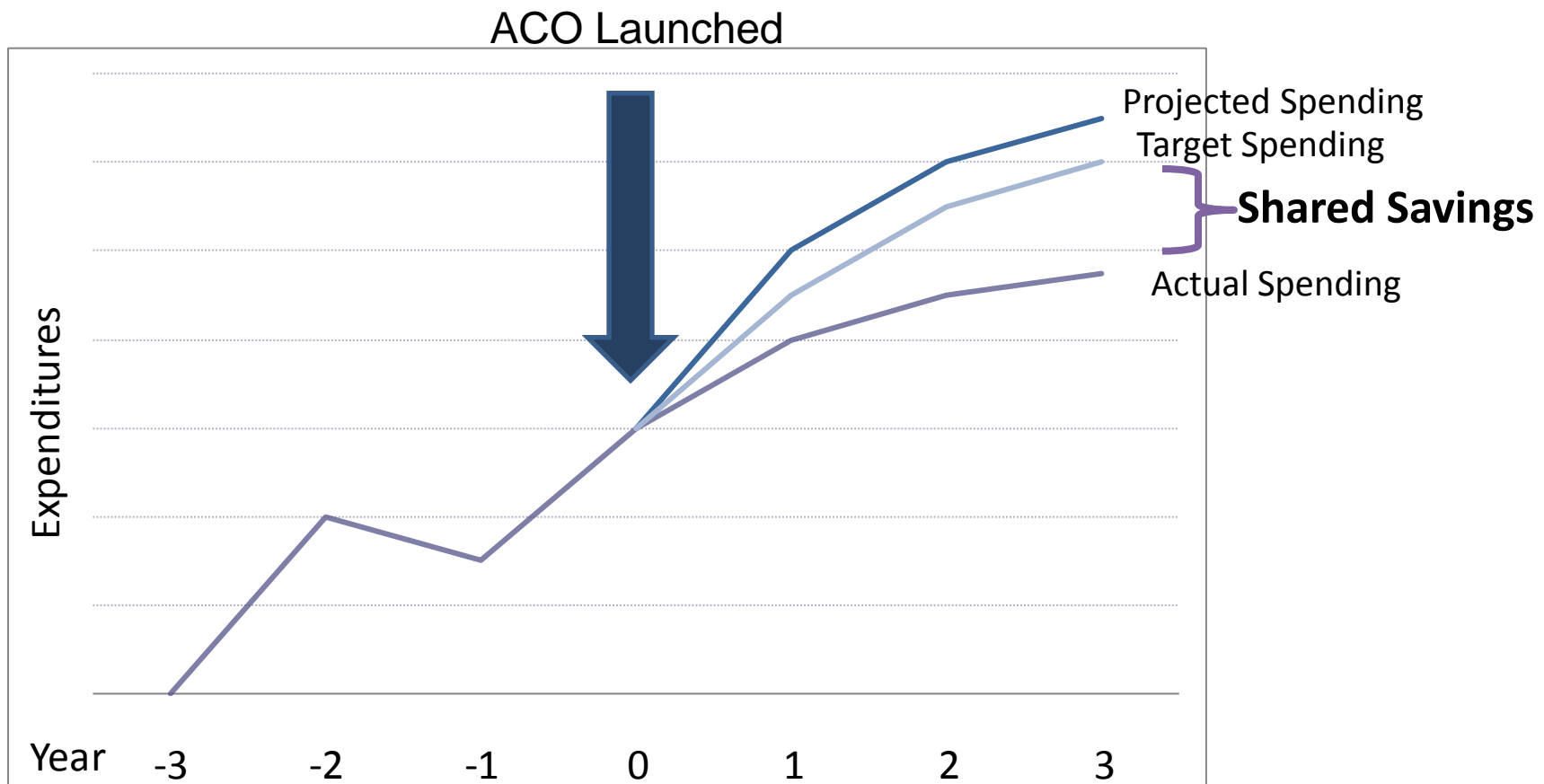
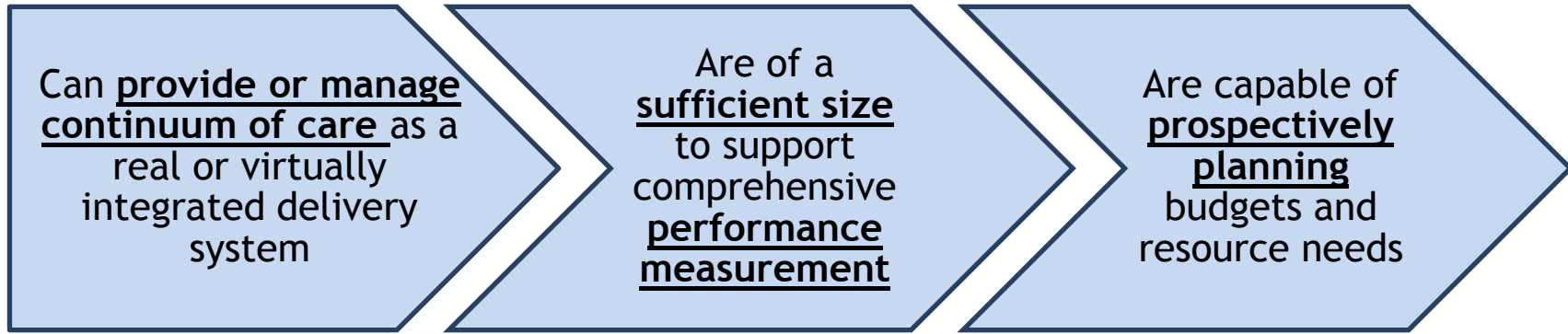


What is an Accountable Care Organization?



Slides adapted from John McCormick

ACO key characteristics



1. Access to Care - *Be there when I need you.*

1. **Access to Care - *Be there when I need you.***

2. **Accountability - *Take responsibility for making sure I receive the best possible health care.***

3. **Comprehensive Whole Person Care - *Provide or help me get the health care and services I need.***

4. **Continuity - *Be my partner over time in caring for my health.***

5. **Coordination and Integration - *Help me navigate the health care system to get the care I need in a safe and timely way.***

6. **Person and Family Centered Care - *Recognize that I am the most important member of my care team - and that I am ultimately responsible for my overall health and wellness.***

Patient-centered Primary Care Home

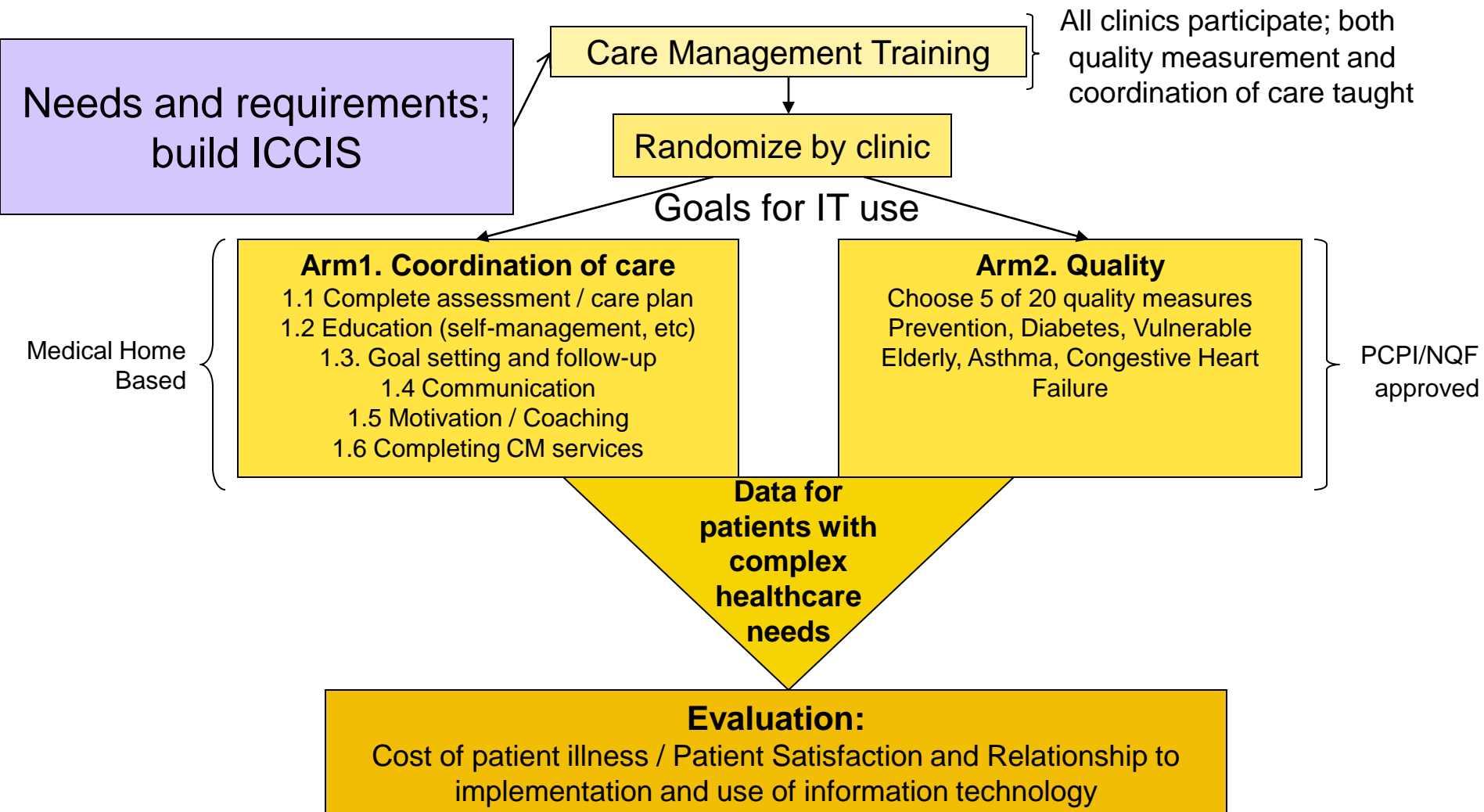
Care Planning

Measure 6: Comprehensive Care Planning
Measure 7: End of Life Planning

Action and Policy Opportunities

- Patient-centered Primary Care Home :
required by law for state to facilitate payment reform; first, in Medicaid, then for others
- Meaningful use of health information technology, HIE, and BEACON communities
- Affordable Care Act & CMS innovations center
- ICCIS

Policy redesign : ICCIS Randomized Trial



Policy creation : two OHSU pilots

Pilot Summary Report

Select Diagnosis and Date:

ICM Participant HVPCC Eligible

Qtr1.2010 Qtr2.2010 Qtr3.2010 Qtr4.2010

Report Date: 12/16/2010 3:46:01 PM for time period: 10/1/2010 12:00:00 AM to 1/1/2011 12:00:00 AM

Total Number of Patients in Clinic: 11841

Quarter: Qtr4.2010 , Diagnosis: HVPCC Eligible

Enrollment:

Status Type	Count
1X Only	21
Active	32
Total:	53

Coordination Activities Completed:

Activity	Count
Communication	6
Assessment	4
Motivational Interviewing / coaching	1
Education	1

Coordination Encounters:

Encounter Type	Count
Telephone Contact	29
MD Office Visit	6
CM Office Visit	6
Record Review	2
Total:	43

Thank you!

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