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Initial development at
Intermountain Healthcare

Redefining quality for team-based care management in primary care

Presented by: David A. Dorr, for the Care Management Plus team

Date: September 2008

The Care Management Plus Team

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Advisory board

- Tom Bodenheimer
- Steve Counsell
- Eric Coleman
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Overview

- Team-based care management
  - What **purpose** does it serve? What **problems** does it help to solve?
  - Example of Care Management Plus
- How do we define **quality** under that purpose?
  - Disease-specific quality measures
  - Environment ('home') measures
  - Patient-centered measures
  - Efficiency
- Conclusion

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.

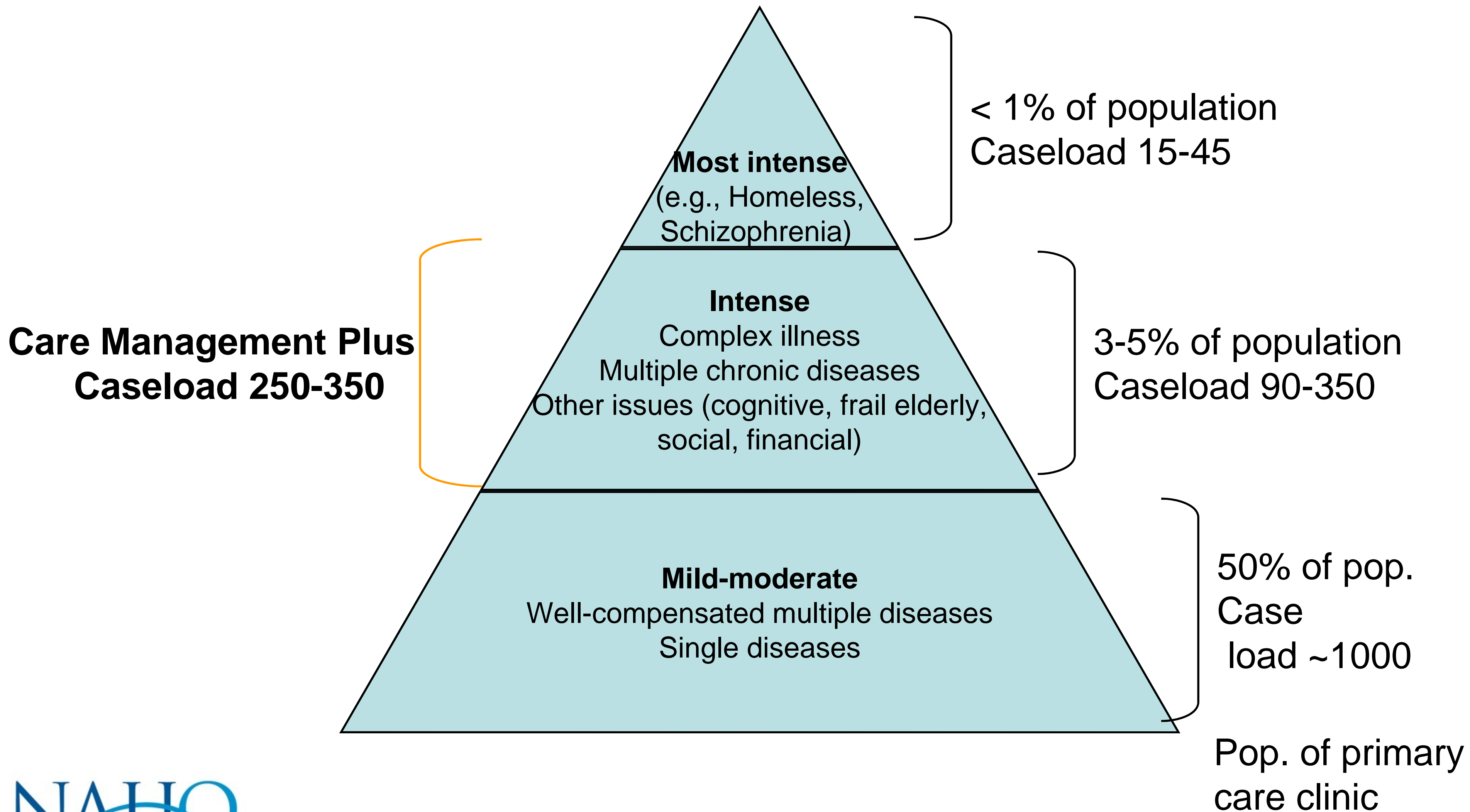
Ms. Viera’s office visit

And Out in the hall:

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

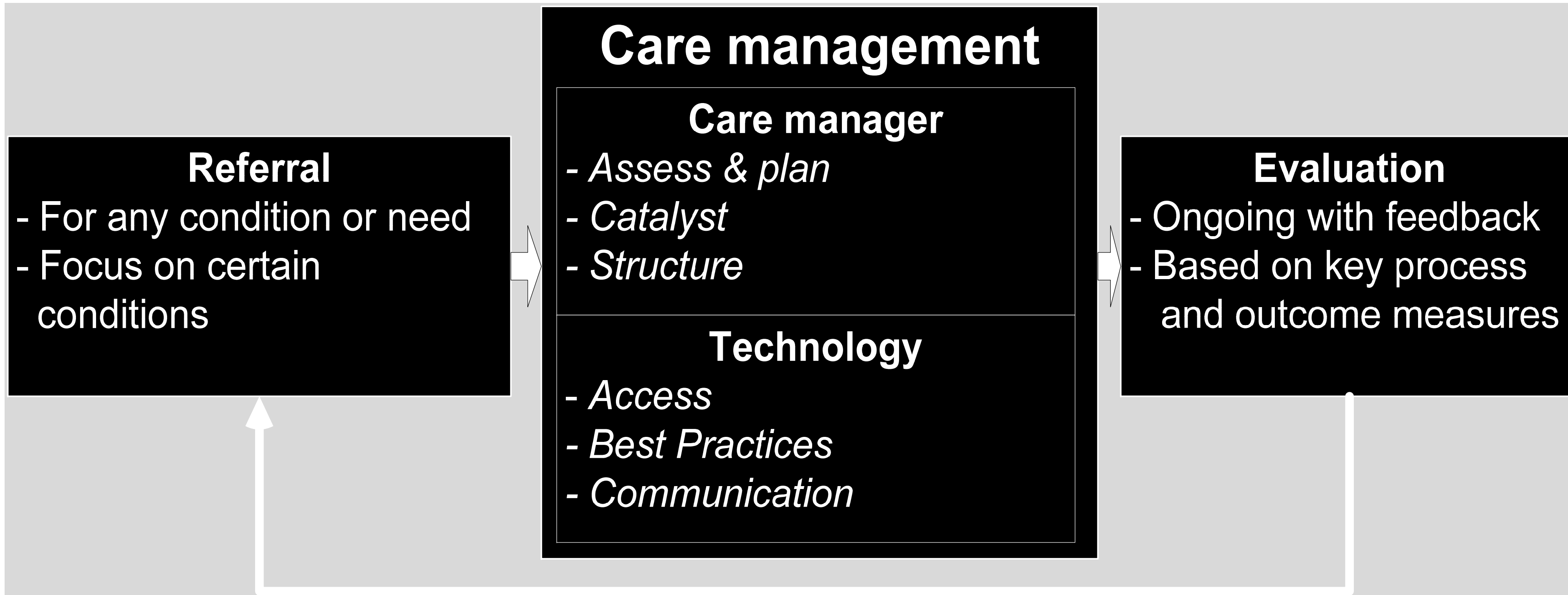
How can Dr. Smith and the primary care team handle these issues?

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



Care Management Plus fills in core gaps in many clinics through a proactive, flexible system.

In primary care clinics



How do these elements affect quality?

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Case help: care manager and Ms. Viera

The care manager then

- **assesses** – readiness to change, disease states, cognitive status, safety
- **prioritizes** – cognition / depression, social issues then disease states
- **co-creates** a care plan
- **facilitates** that care plan
- **documents** progress …

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 all RNs; other models are possible.

Population Tickler

Call

Care Manager Encounter Tickler List

Care Manager: Ann Larsen

Sched. Dt. and Time	Encounter Type	Enc. Reason	MMI	First Name	Last Name	Phone Number	Pr
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)	Ob
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)	Sm
2/17/04 9:00 AM	Class					(801)	Me
2/17/04 9:00 AM	Class					(801)	Ob
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)	Ru
2/17/04 3:00 PM	CM Office Visit					(801)	Wa
2/17/04 3:50 PM	MD Office Visit					(801)	Wo

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Patient Information : Form

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

	Diag Date	Diagnosis	Status
		CHF	Active
Edit	3/3[illegible]04	Anxiety	Active
Edit	3/30/2004	Depression	Active

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

Patient Search

ID Number:

Last Name:

First Name:

Care Mgr:

Search for Patients

Show All Patients

	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	✓	0		No Risk							
Edit	9/1/2004	0	4	Not	✓	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

CMT database - example

Record: 1 of 1

Patient Worksheet

Wilcox, Proc of AMIA Symp, 2005

16 November 2006

Patient Worksheet

Selected to Print for: All Patients, All Sections, Last Clinical Note

v1.0.70
Comprehensive Version

PATIENT NAME	SEX	DOB	MM#	MRN#
TEST, BED	F	01/01/1911	650730	5992114

Problems

Diabetes Mellitus, Type 2
Hyperlipidemia

Chronic conditions

Active Medications

1. - Glucophage (Metformin HCl), 500mg, Tablet; 1 TABLET; Daily
2. - Simvastatin, 10mg, Tablet, Oral; 1 TABLET ...
3. - Lisinopril, 10mg, Tablet, Oral; No dose ...
4. - Calcium Carbonate/Vitamin D (Calcium 500 W/Vitamin D), 500-200, Tablet, 1 TABLET, BID

Medications

Allergies

(+) Penicillins - A Drug Allergen Group; Reaction (s): Rash

Allergies

Disease Management

ADL		Pain Score (0-10)		MMSE	
11/16/2006	5	11/16/2006	4	11/16/2006	

Functional status

Preventive Care

Pap Smear	Mammogram
No Data	No Data

Preventive care summary

Clinical Laboratory Data

HgbA1c (<=7.0)		UA 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), CHOL (<200), TC/HDL Ratio

No Data - No Data - ... No Data -

HCT		hsCRP		Homocysteine	
No Data	-	No Data	-	No Data	-

Pertinent labs

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					
06/12/2003	50.00 N/A	-					

Last foot exam: 11/2005 Abnormal   Last dilated retinal exam: 11/2005 Abnormal

Pertinent exams

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 Hypertension).

Passive reminders

Procedures

[ ] Mammogram - Suggested yearly for women age 40 and above, every 1-2 years age 50 and above.
[ ] Pneumovax - Suggested for all Patients ... disease.
[ ] Tetanus Immunization - Suggested ...
[ ] 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.

Organized by illness

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Quality Measurement

- 'Traditional' – Disease specific / outcome
  - Diabetes – testing or control of disease
  - Avoidance of hospitalizations (if possible)
- Efficiency
- Environment 'Home'
- Patient-centered measures
  - 'Satisfaction'
  - Condition/illness specific – PACIC
  - Communication – Ambulatory CAHPS
  - Setting specific – Care Transitions Measures

Guideline Adherence in Diabetes: Results

Outcome	Odds Ratio
Overdue for HbA1c test	0.79*
HbA1c Tested	1.42*
HbA1c in control (<7.0)	1.24*

*$p<0.01$

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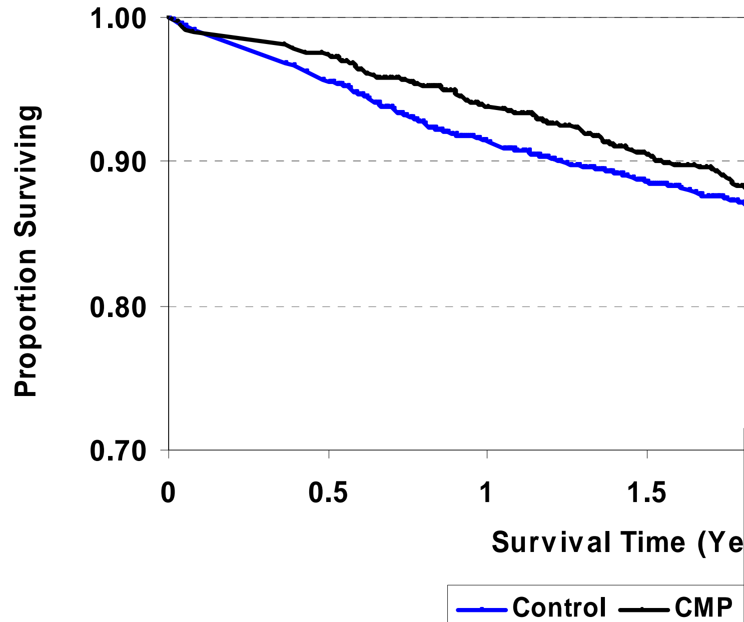
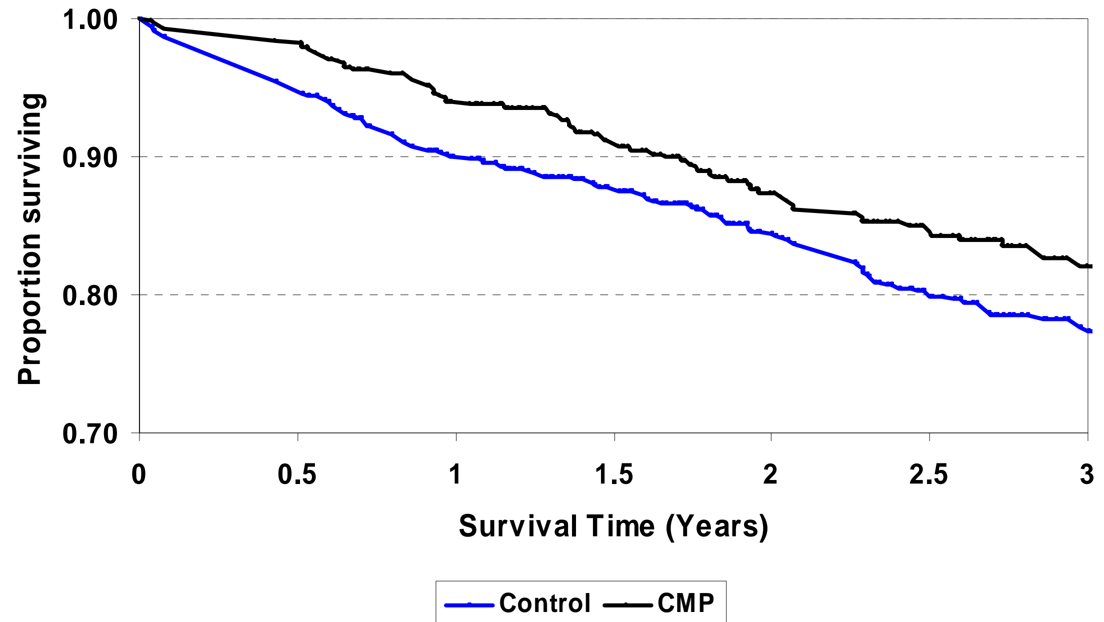
Odds of dying were reduced significantly.





Dorr, AcademyHealth, 2006

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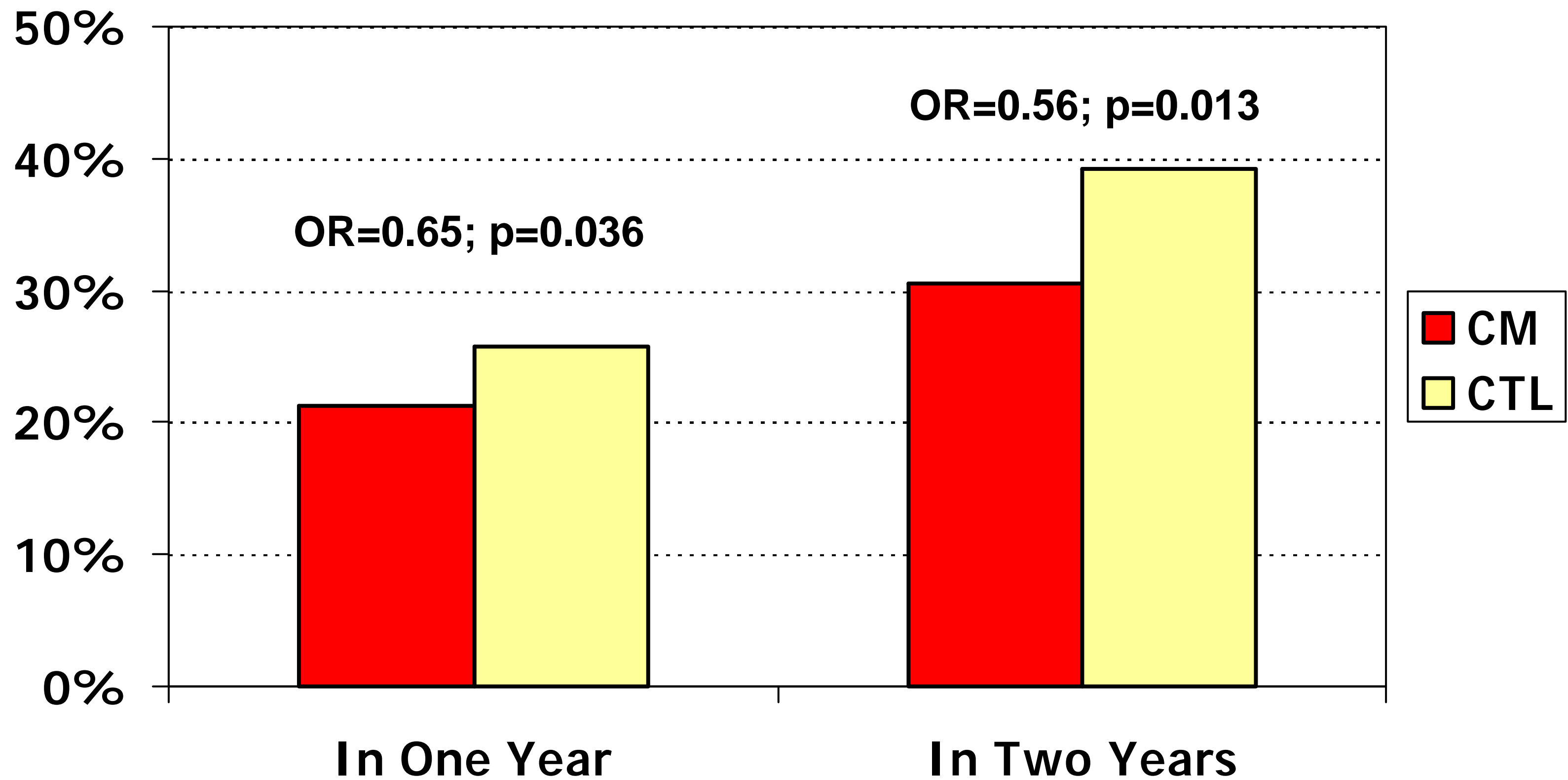
Odds of admission (any cause) were reduced by 27-40% for patients with complex diabetes.



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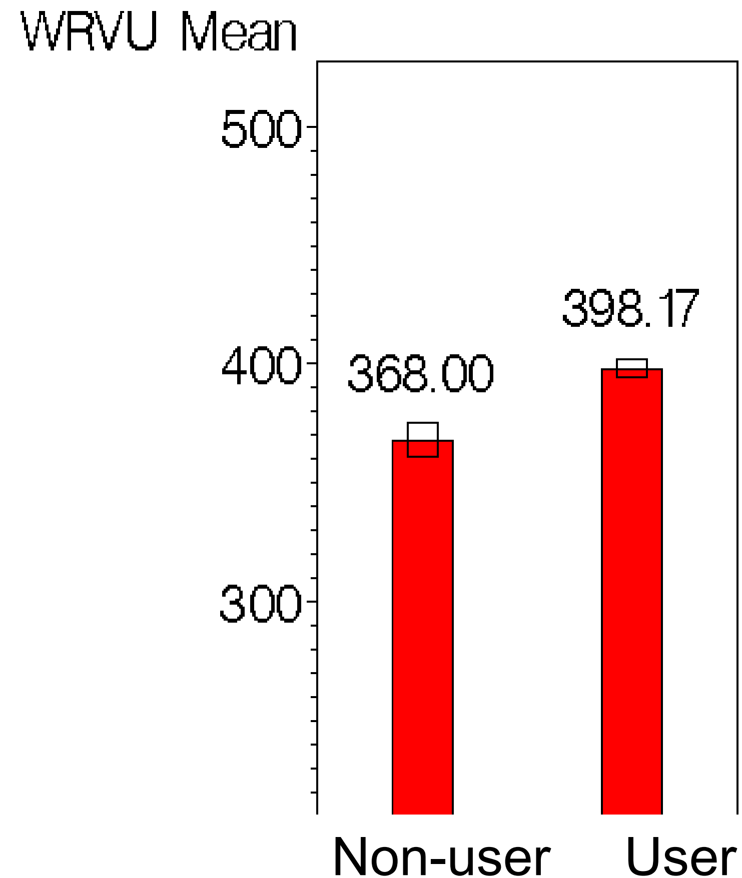
Efficiency – clinic measurements

- Physicians who referred to care managers:

8% more productive

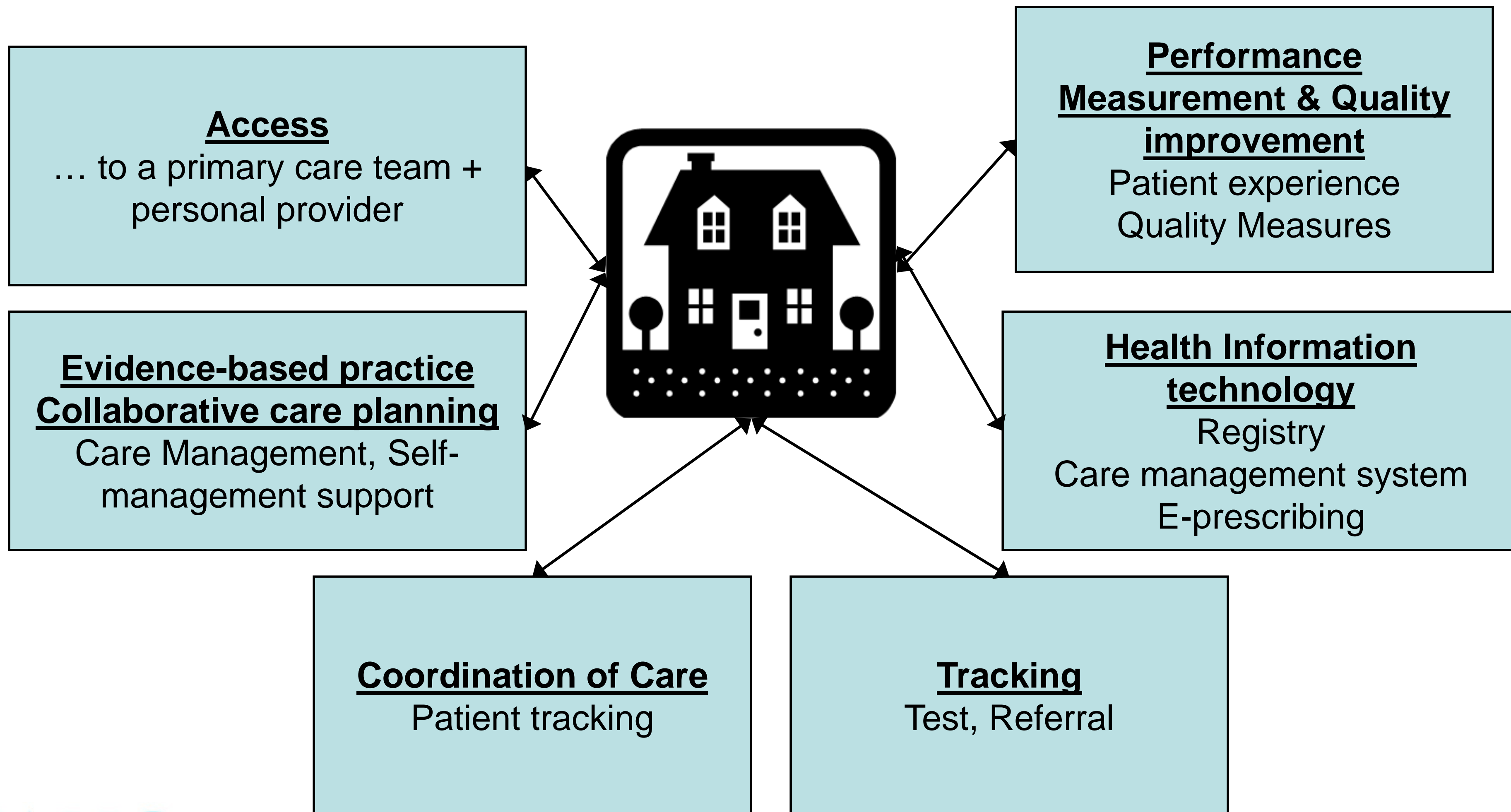
- Than peers in same clinic



Dorr, AJMC, 2007

Home / Environment definitions

Adapted from the NCQA and joint statement criteria



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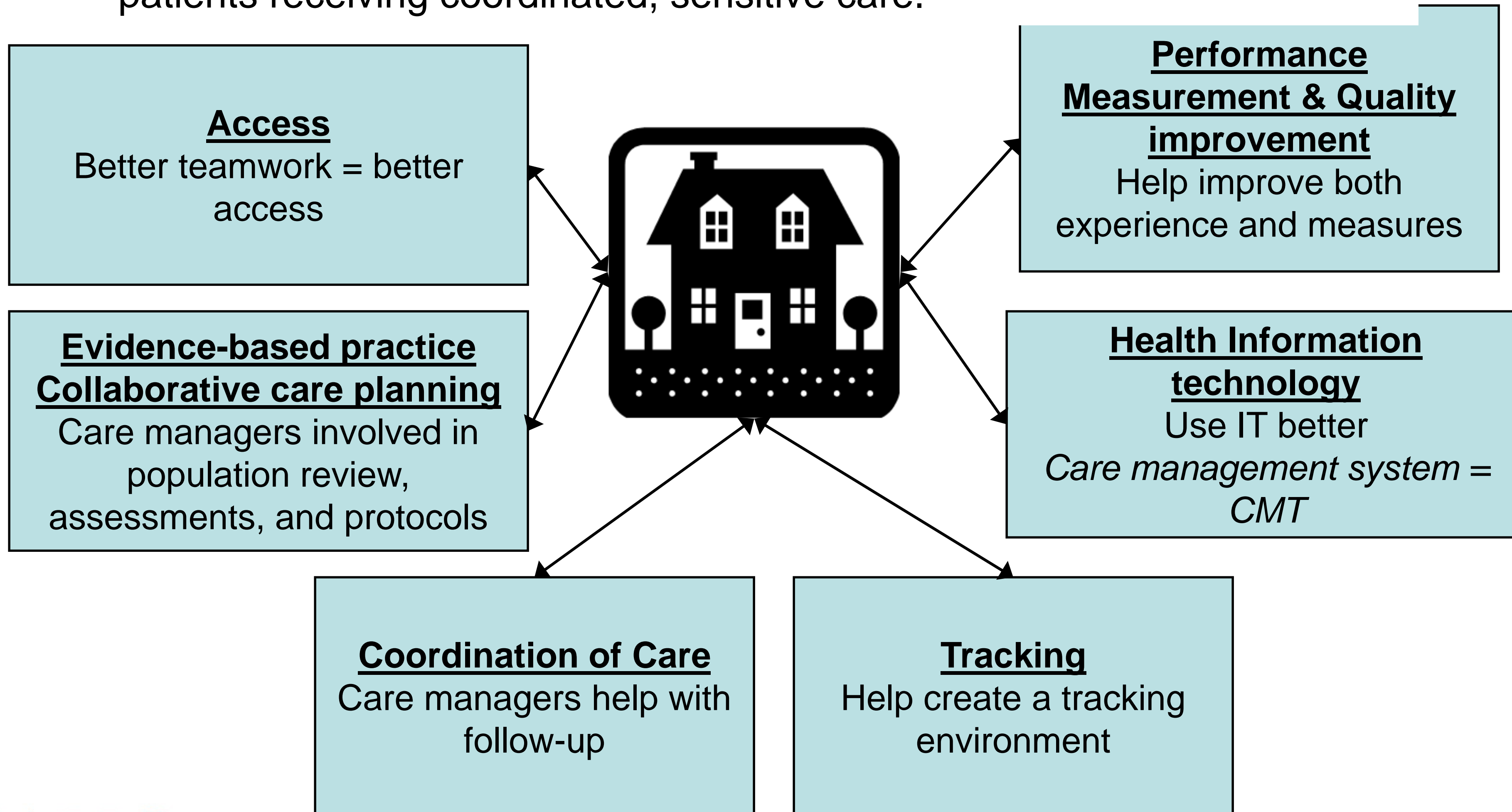
Care Management Plus can help create a medical home.

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



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Patient Experience measurement

- Patients value the services
  - Learn to self-manage / understand condition
  - Report high satisfaction about the service
- Clinicians value the care managers
  - We strive for deep collaboration, which
  - Seems related to decreased burnout, and
  - Improves teamwork

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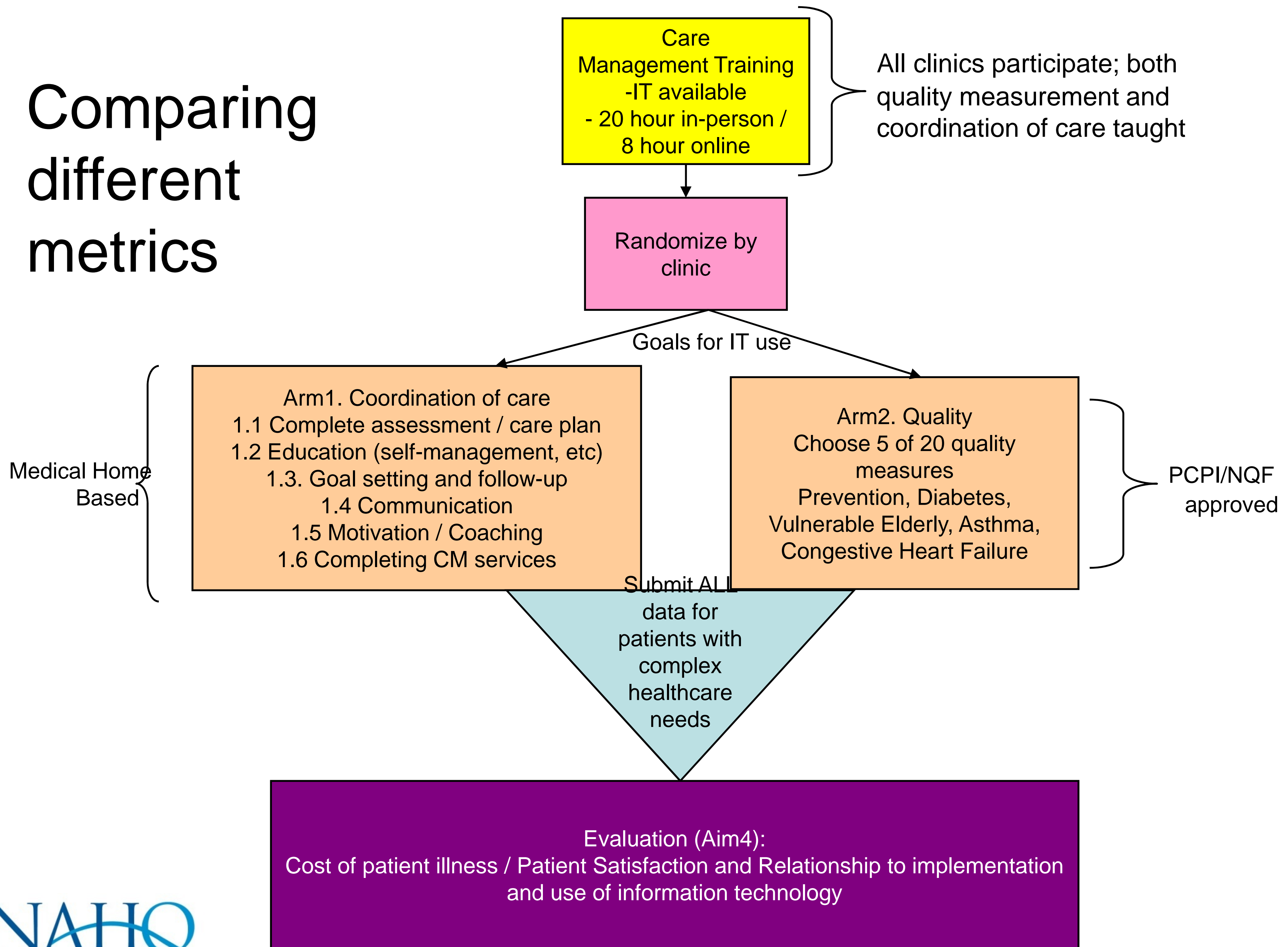
Dorr, AJMC, 2007; Dorr, AcademyHealth, 2007; Wilcox, CareMJ, 2007

Summary of different schools of metrics

- Disease specific
  - Evidence-based; lots of them out there (see the quality measures database at AHRQ)
  - Captures a part of a person's goals
- Efficiency / Utilization
  - Good for outcomes (showing reduced disease exacerbation) and internal changes



Comparing different metrics
Care Management Training -IT available - 20 hour in-person / 8 hour online
All clinics participate; both quality measurement and coordination of care taught
Randomize by clinic
Goals for IT use
Medical Home Based
Arm1. Coordination of care
1.1 Complete assessment / care plan
1.2 Education (self-management, etc)
1.3. Goal setting and follow-up
1.4 Communication
1.5 Motivation / Coaching
1.6 Completing CM services
Arm2. Quality
Choose 5 of 20 quality measures
Prevention, Diabetes, Vulnerable Elderly, Asthma, Congestive Heart Failure
PCPI/NQF approved
Submit ALL data for patients with complex healthcare needs
Evaluation (Aim4):
Cost of patient illness / Patient Satisfaction and Relationship to implementation and use of information technology
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Teamwork and model development

- How do you move towards the teamwork implied by these models?
  - Measurement: Team Development Measure - http://www.peacehealth.org/Oregon/SeniorHealth/TeamMeasure/
- How do you disseminate?
  - Address barriers

Team Development

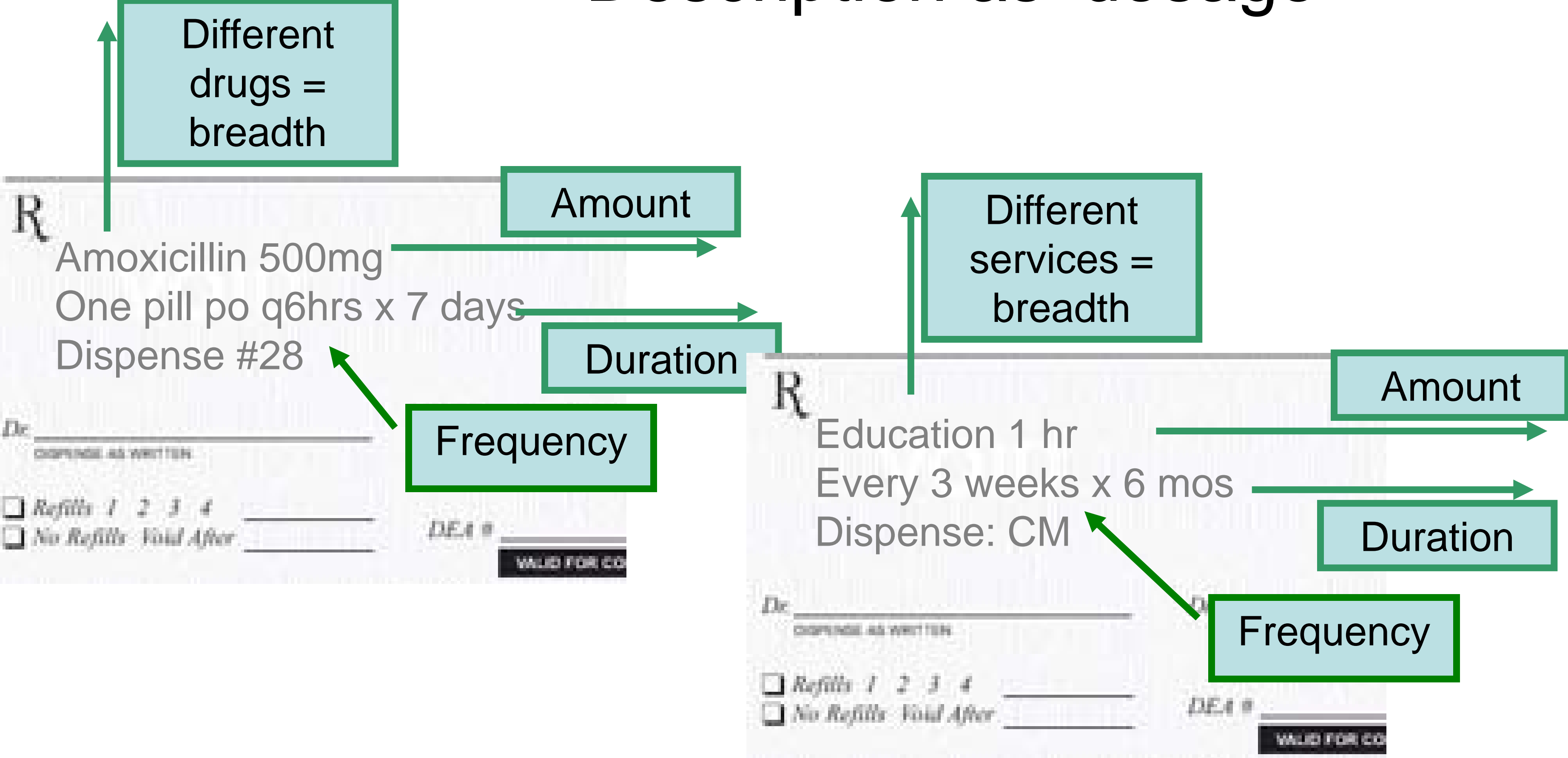
Stage	Score Range	Components Present *	Solidification
Pre-Team	0 - 36	None to Building Cohesiveness	-
1	37 - 46	Cohesiveness	In Place
2	47 - 54	Communication	
3	55 - 57	Role Clarity	
4	58 - 63	Goals & Means Clarity	
5	64 - 69	Cohesiveness	Firmly In Place
6	70 - 77	Communication	
7	78 - 80	Role Clarity	
8	81 - 86	Goals & Means Clarity	
Fully Developed	87 - 100	Everything	

http://www.peacehealth.org/Oregon/SeniorHealth/TeamMeasure/

Problems in creating models like this

Area	**Our experience**	**Next Steps**
Variability	Population success differs	More accurate prescribing
Reliability	‘Dosage’ required	Dissemination and fidelity
Reimbursement	Misaligned incentives	Thoughtful reform
Cost Neutrality	Varies by population	Focus population

Description as ‘dosage’



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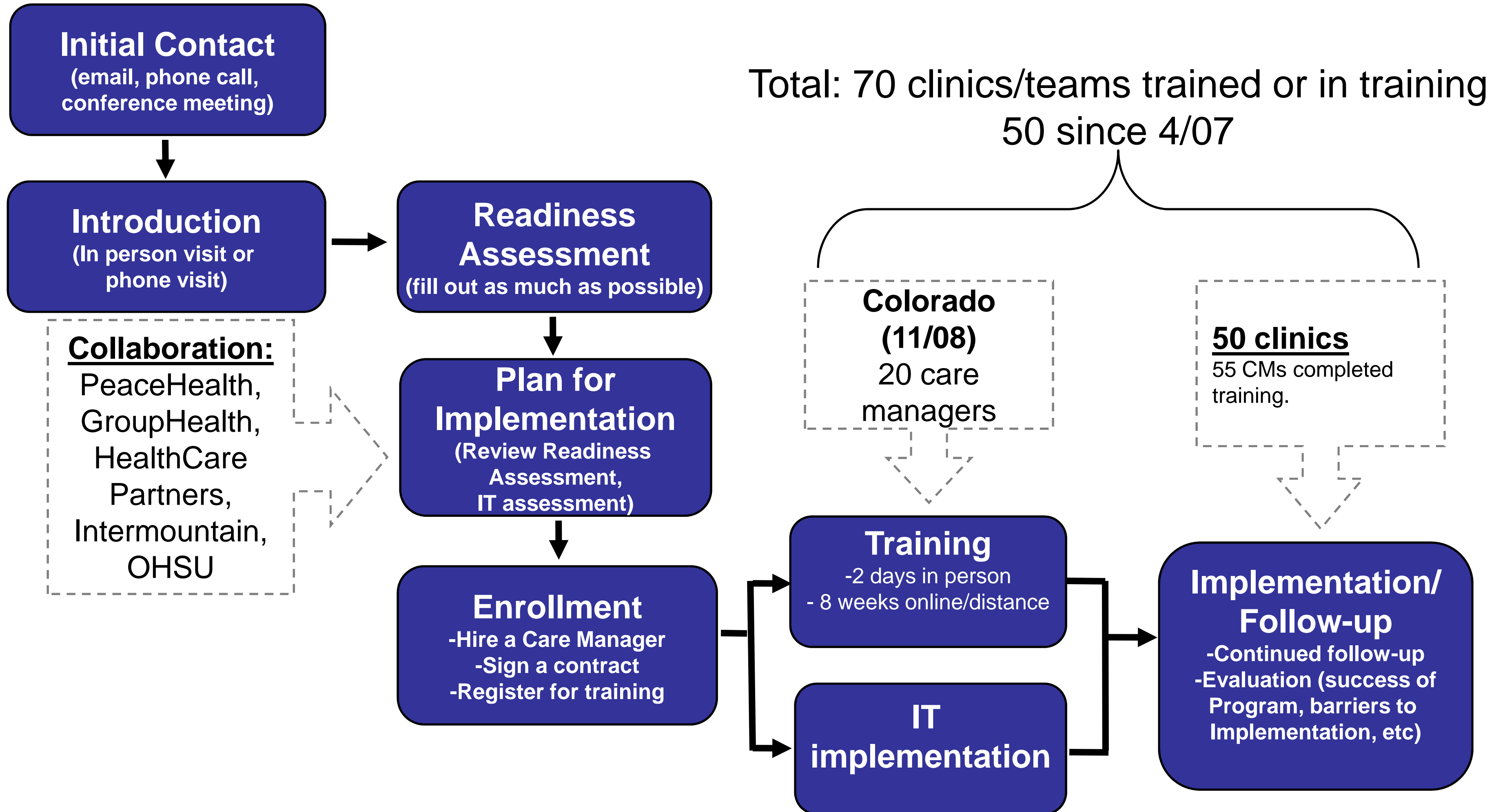
Dissemination of CMP



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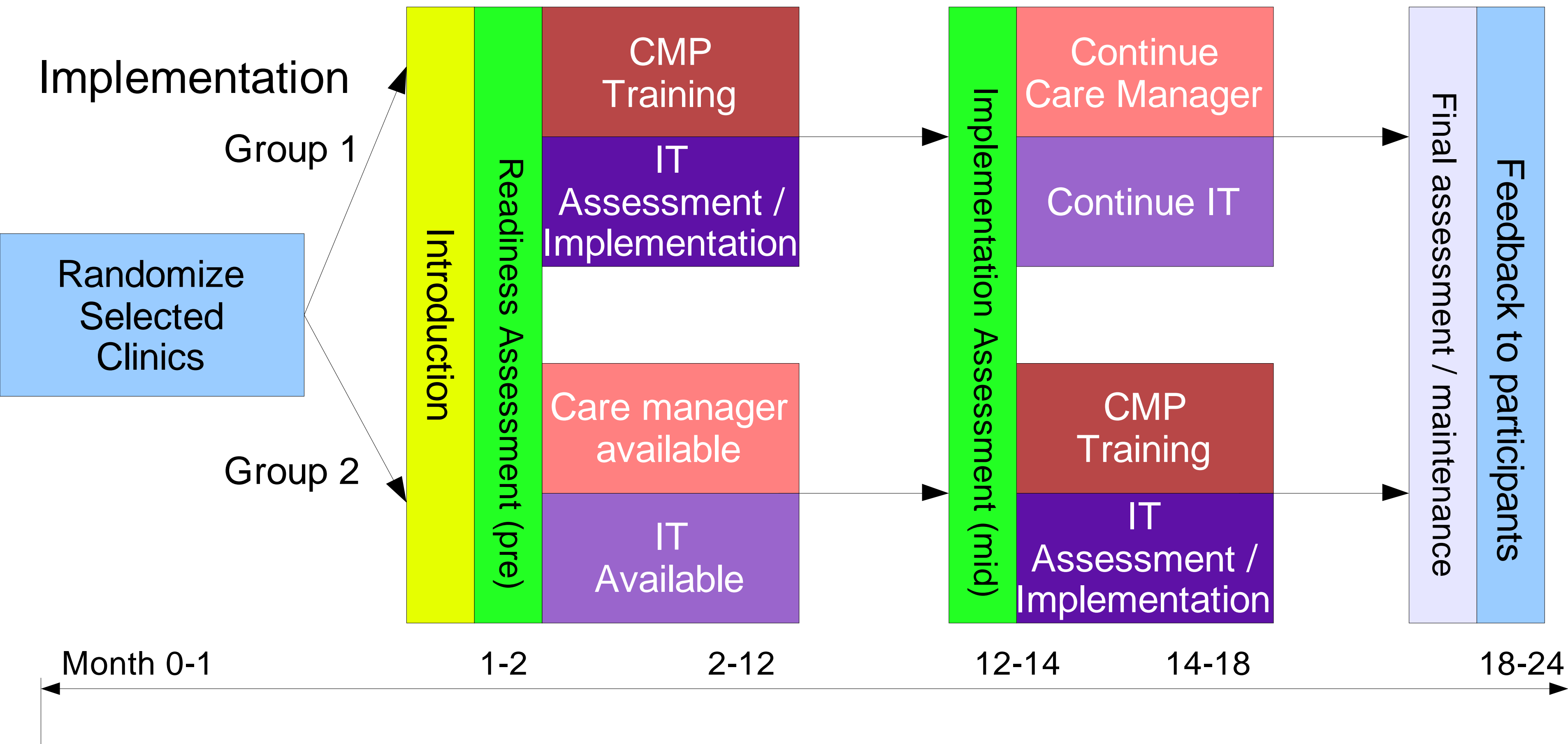
ORPRN collaborators - Study Design (Fagnan, PI)



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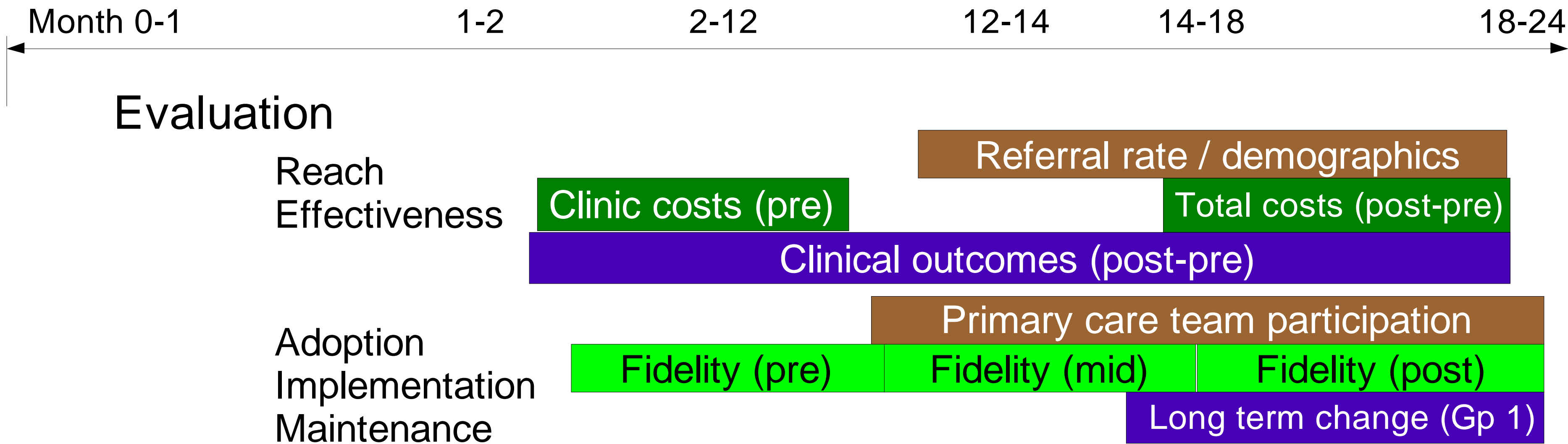
Evaluation of dissemination



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Thank you! and Questions?

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