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Initial development at
Intermountain Healthcare

Geriatric (+!) Models of Ambulatory Care

Improving the experience of Primary Care for older adults and those with complex illness: Care Management Plus

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

Date: April 16th, 2008

The Care Management Plus Team

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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

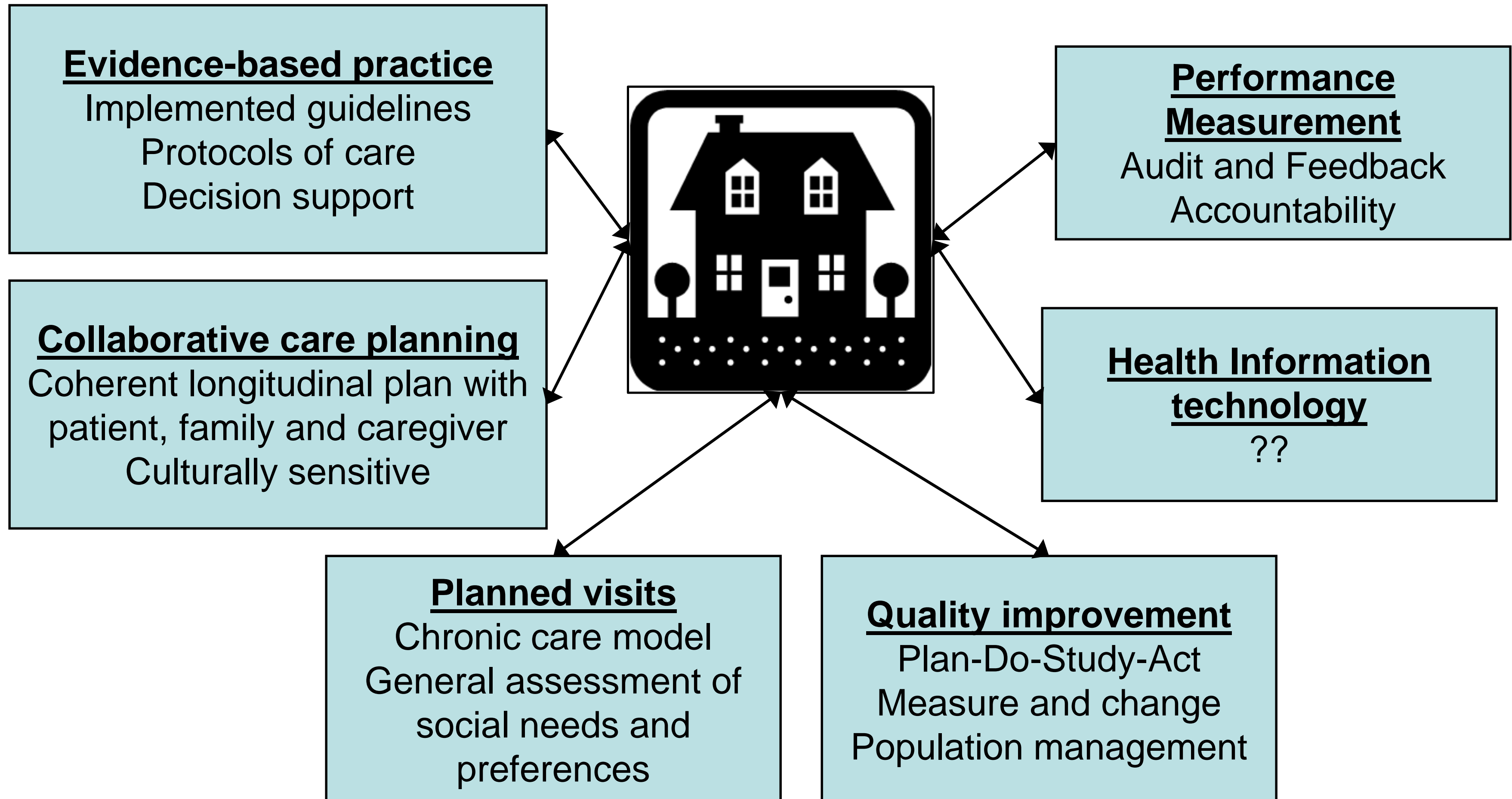
And Out in the hall:

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

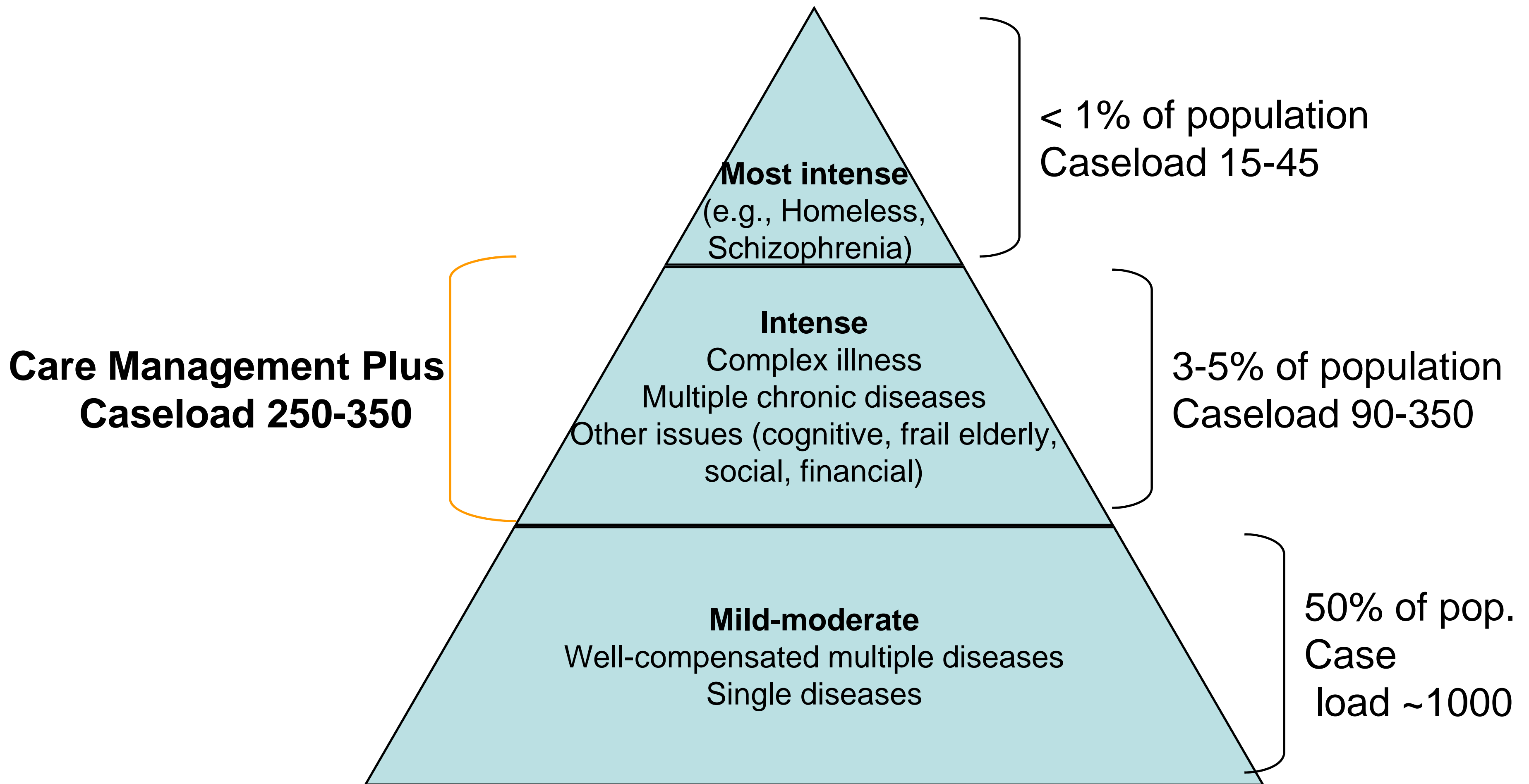
How can Dr. Smith and the primary care team handle these issues?

Medical home: concepts

Health care teams partner with patients & caregivers to ensure that all of their health care is effectively managed and coordinated.

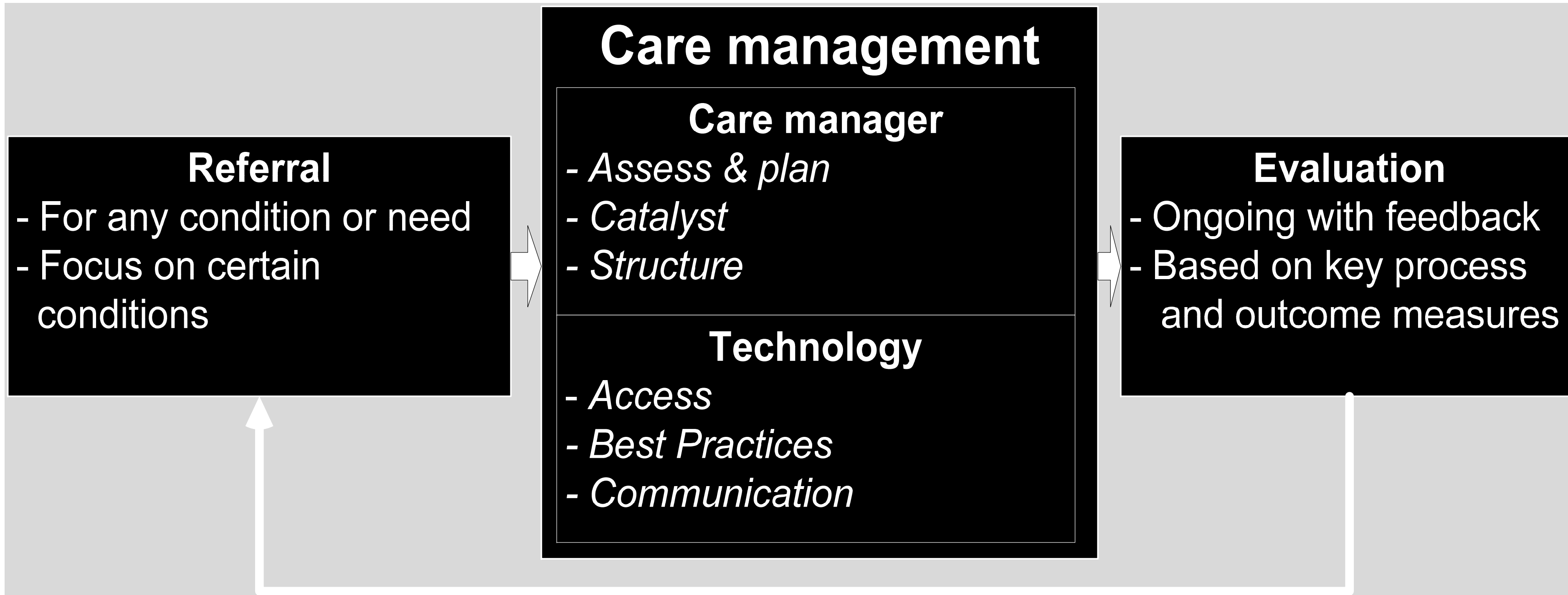


Care management varies by intensity and function for different populations and needs.



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

In primary care clinics



Larger infrastructure: Electronic Health Record, quality focus

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.

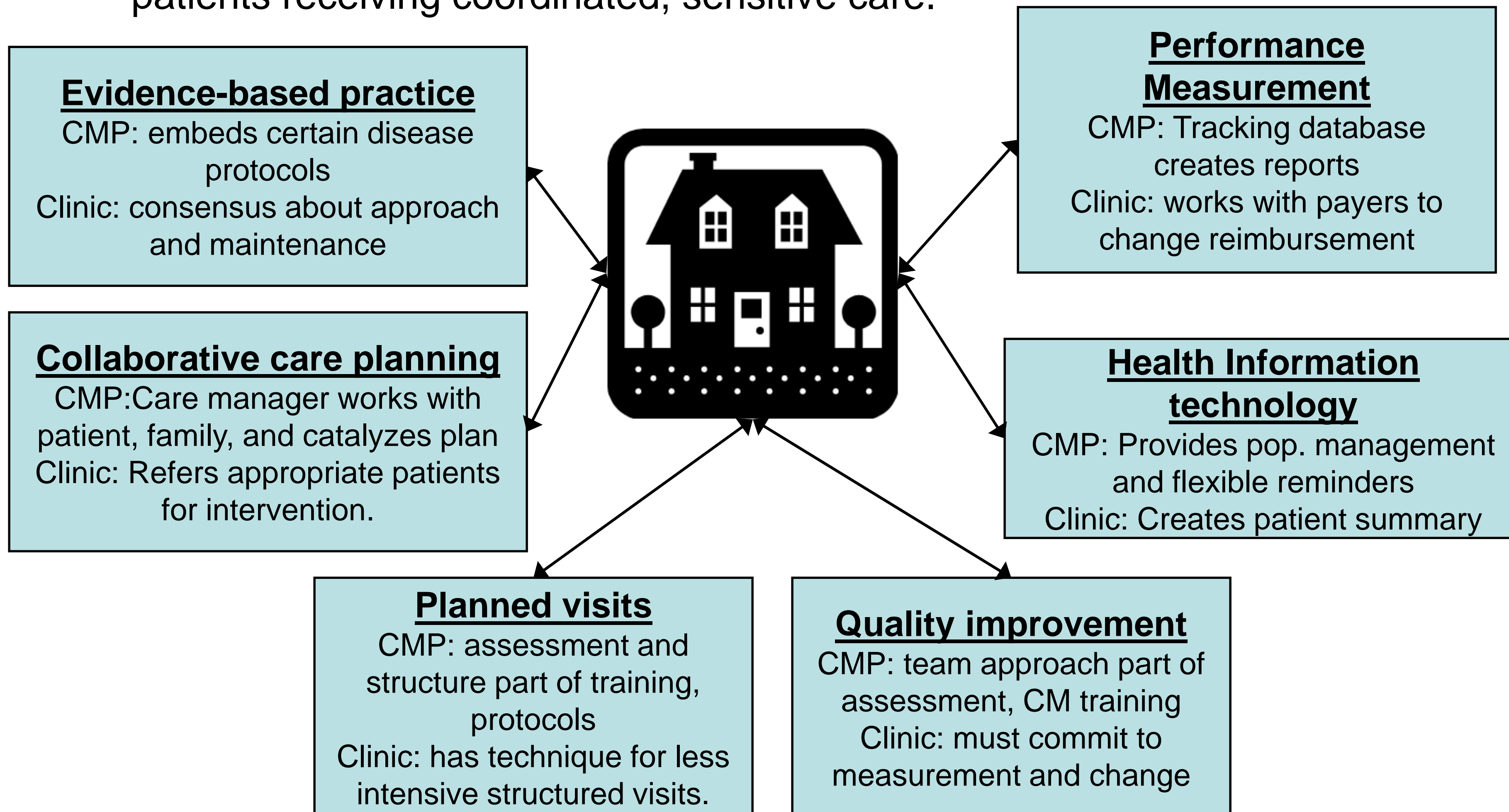
Care managers receive special training in

- 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.

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.



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	[illegible]	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 [illegible]
3. - Lisinopril, 10mg, Tablet, Oral; No dose [illegible]
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	[illegible]

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	[illegible]	[illegible]	[illegible]		
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).

Procedures

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

Passive reminders

Organized by illness

Population Tickler

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	[illegible]	[illegible]	[illegible]	(801) [illegible]	Wo
2/17/04	Telephone Contact	DM F/U	[illegible]	[illegible]	[illegible]	(801) [illegible]	Wo
2/17/04	Telephone Contact	DM F/U	[illegible]	[illegible]	[illegible]	(801) [illegible]	Wo
2/17/04	Telephone Contact	DM F/U	[illegible]	[illegible]	[illegible]	(801) [illegible]	Wo
2/17/04	Telephone Contact	Depression F/U	[illegible]	[illegible]	[illegible]	(801) [illegible]	Ob
2/17/04	Telephone Contact	Dep F/u	[illegible]	[illegible]	[illegible]	(801) [illegible]	Sm
2/17/04	Telephone Contact	DM F/U	[illegible]	[illegible]	[illegible]	(801) [illegible]	Wo
2/17/04 8:30 AM	CM Office Visit		[illegible]	[illegible]	[illegible]	(801) [illegible]	Wo
2/17/04 9:00 AM	Class		[illegible]	[illegible]	[illegible]	(801) [illegible]	Sm
2/17/04 9:00 AM	Class		[illegible]	[illegible]	[illegible]	(801) [illegible]	Me
2/17/04 9:00 AM	Class		[illegible]	[illegible]	[illegible]	(801) [illegible]	Ob
2/17/04 9:00 AM	Class		[illegible]	[illegible]	[illegible]	(801) [illegible]	Wo
2/17/04 10:40 AM	MD Office Visit	DM F/U	[illegible]	[illegible]	[illegible]	(801) [illegible]	Wo
2/17/04 1:50 PM	MD Office Visit	DM F/U	[illegible]	[illegible]	[illegible]	(801) [illegible]	Ru
2/17/04 3:00 PM	CM Office Visit		[illegible]	[illegible]	[illegible]	(801) [illegible]	Wa
2/17/04 3:50 PM	MD Office Visit		[illegible]	[illegible]	[illegible]	(801) [illegible]	Wo

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
3/30/2004	Anxiety	Active
3/30/2004	Depression	Active

Sched Date	Sched Time	Encounter Type	Status
		Telephone Contact	Pending
		Home Visit	Resolved
1/26/2005		Telephone Contact	Resolved
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
1/26/2005	1	3	Somewhat	✓	0		No Risk							
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

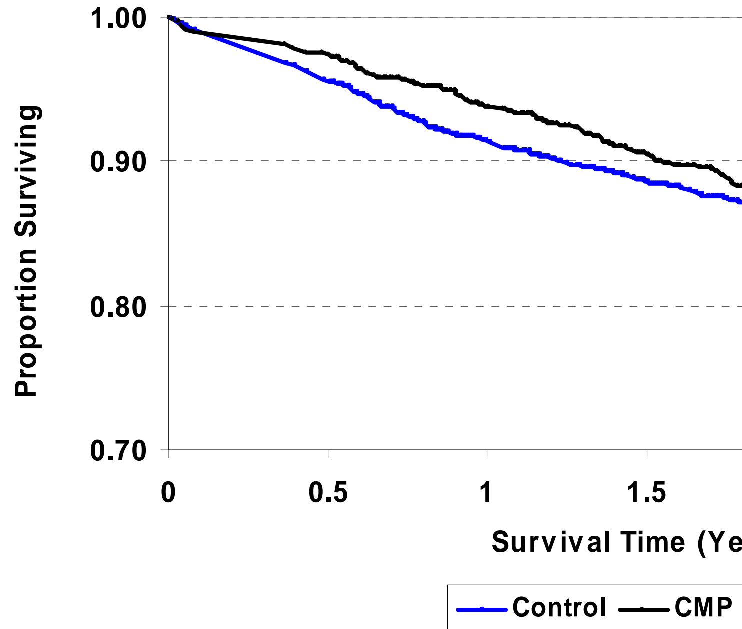
Record: 1 of 1

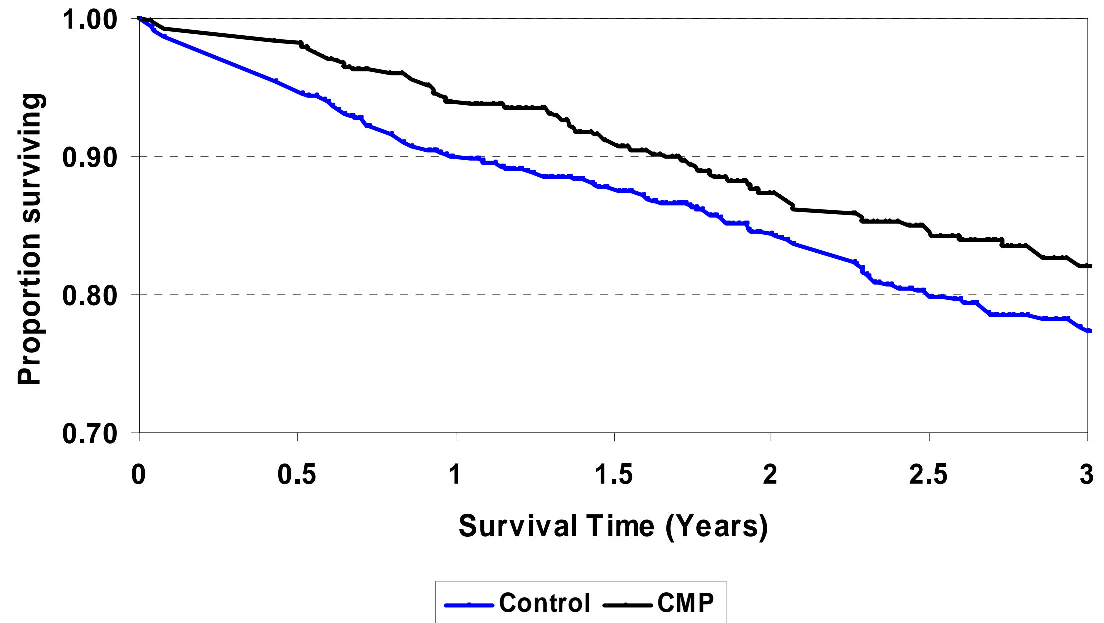
Guideline Adherence in Diabetes: Results

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

*$p<0.01$

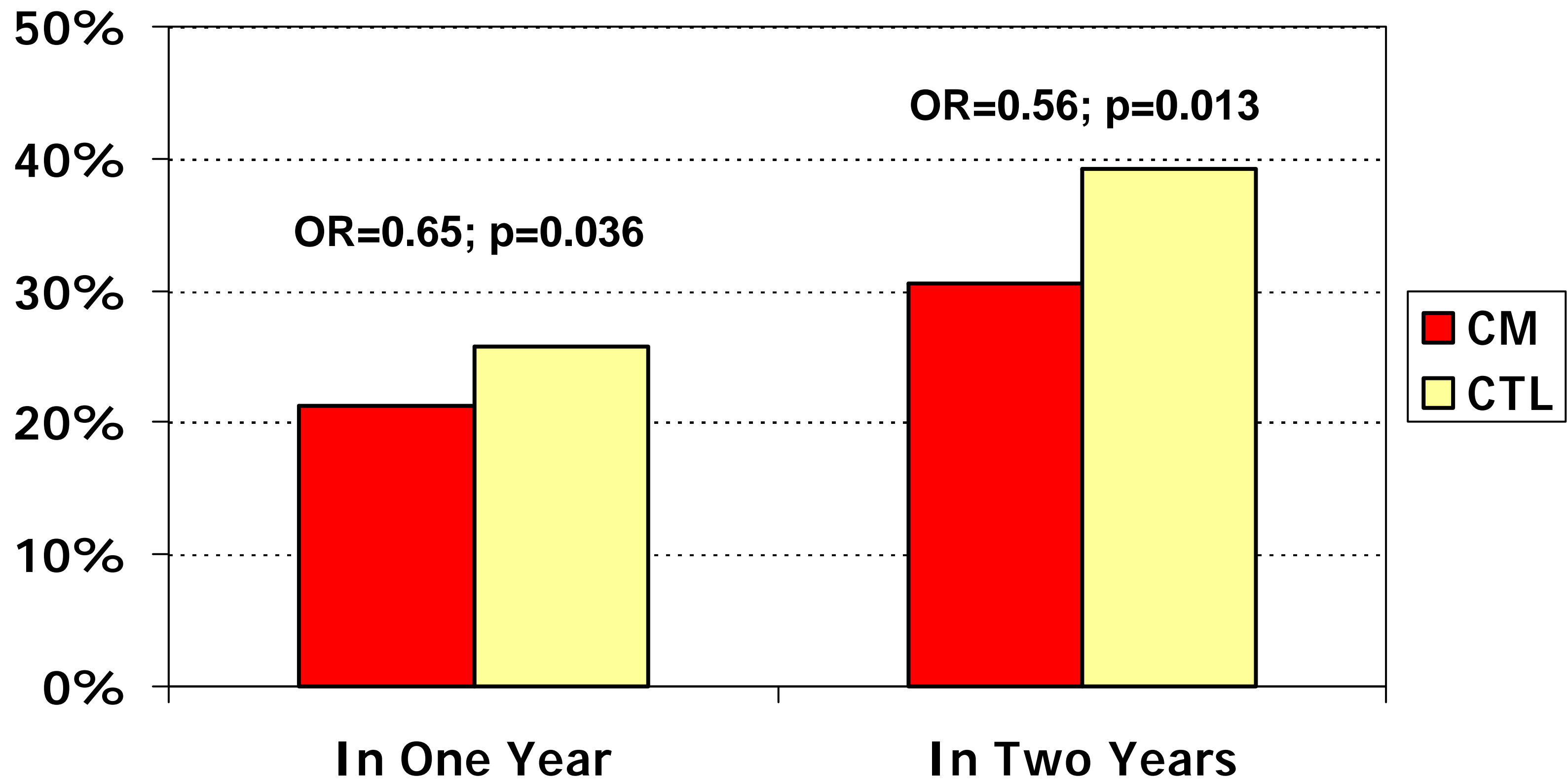
Odds of dying were reduced significantly.





Dorr, AcademyHealth, 2006

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



Care Management Plus has other benefits… quality and efficiency

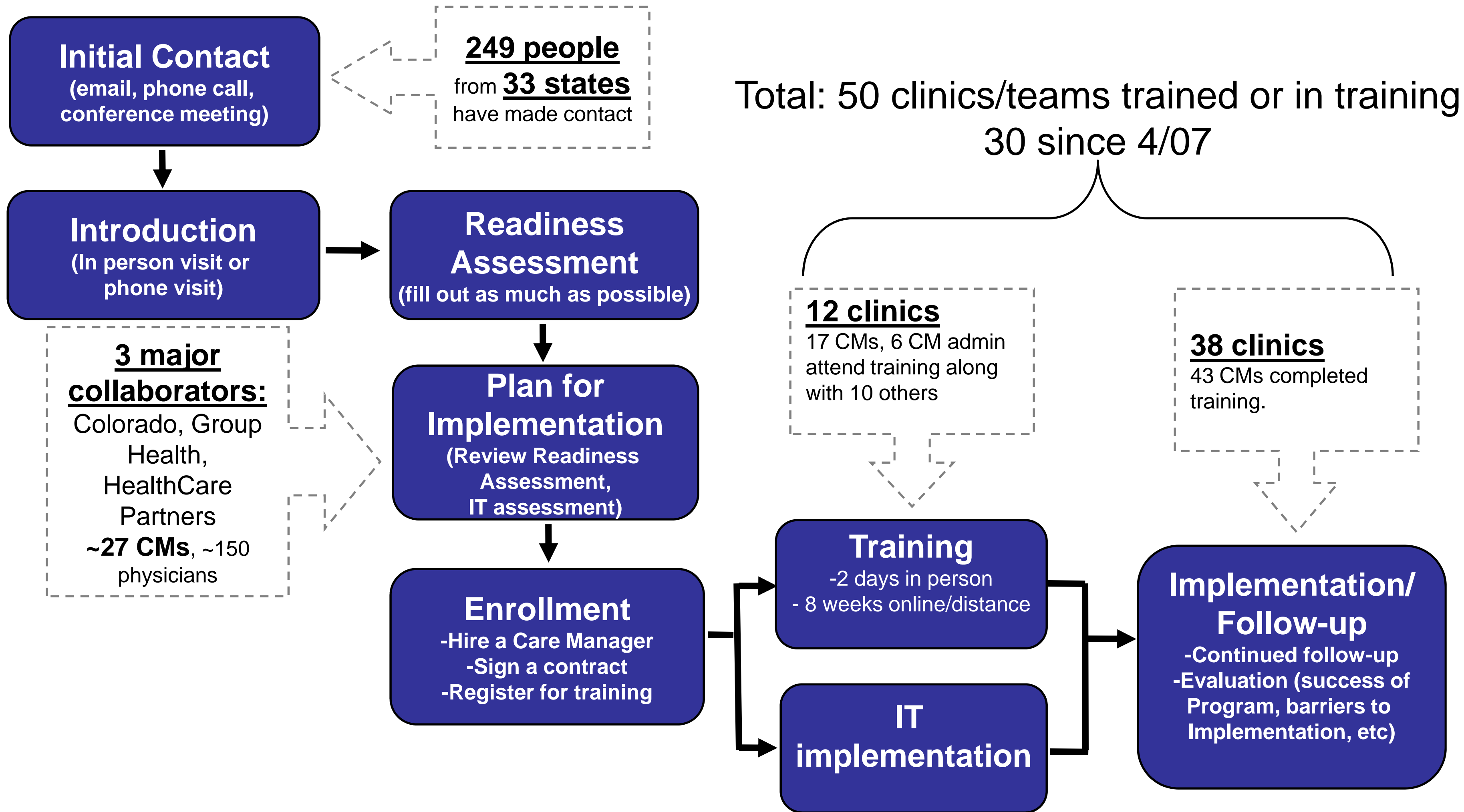
- For the primary care group
  - who can improve efficiency through improved
    - Patient self-management / empowerment
    - Efficient clinical processes from complex care
  - through the care manager
- For patients and society
  - Fewer exacerbations = lower costs

Dorr, AJMC, 2007; Dorr, AcademyHealth, 2007

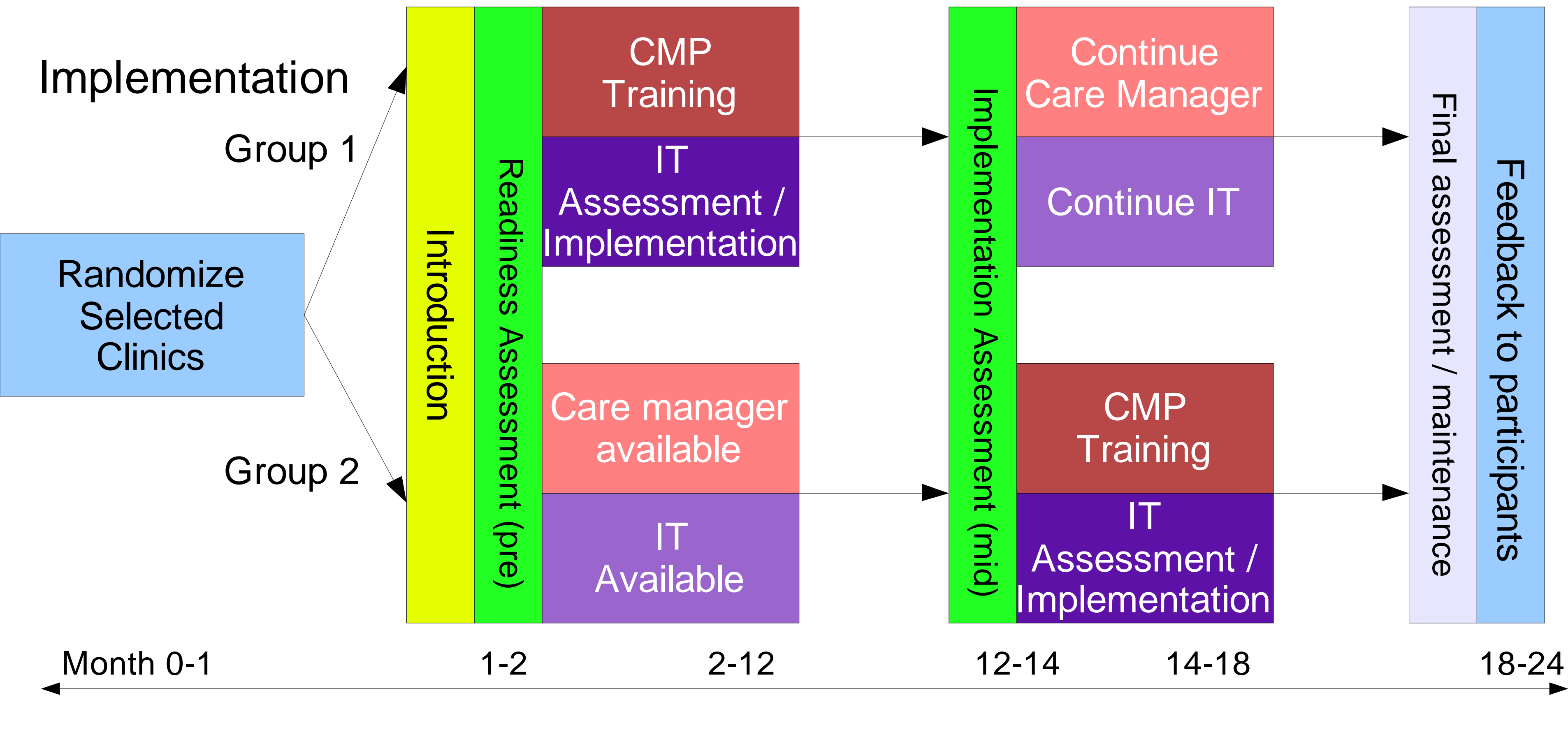
Problems in creating Care Coordination

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

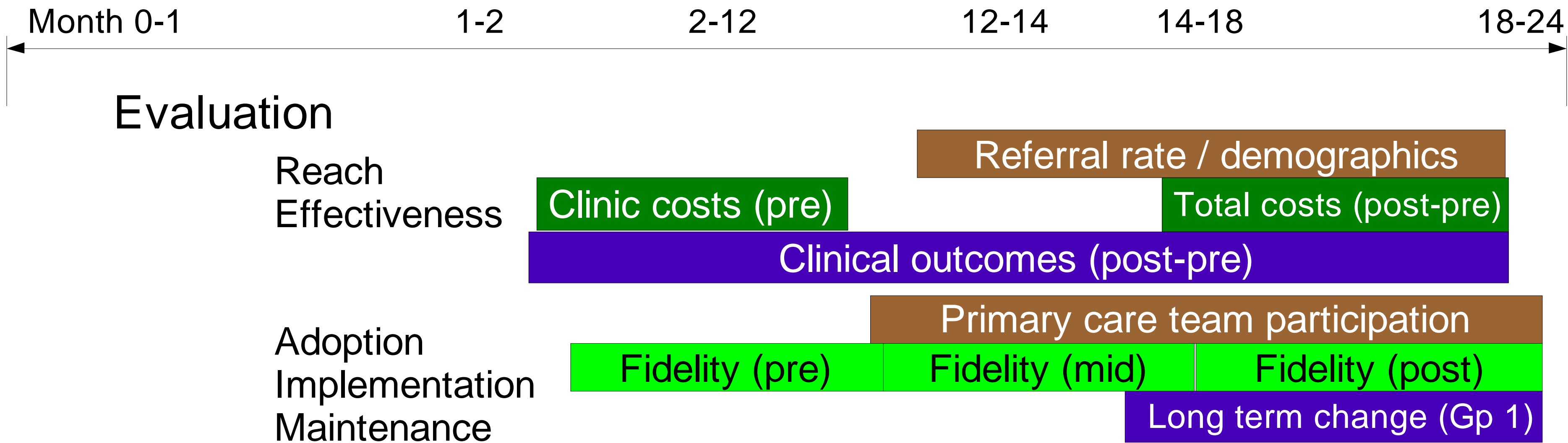
Dissemination of CMP



ORPRN collaborators - Study Design (Fagnan, PI)



Evaluation of dissemination



Thank you!

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503.494.2567

or visit www.caremanagementplus.org

Reimbursement and Cost Neutrality

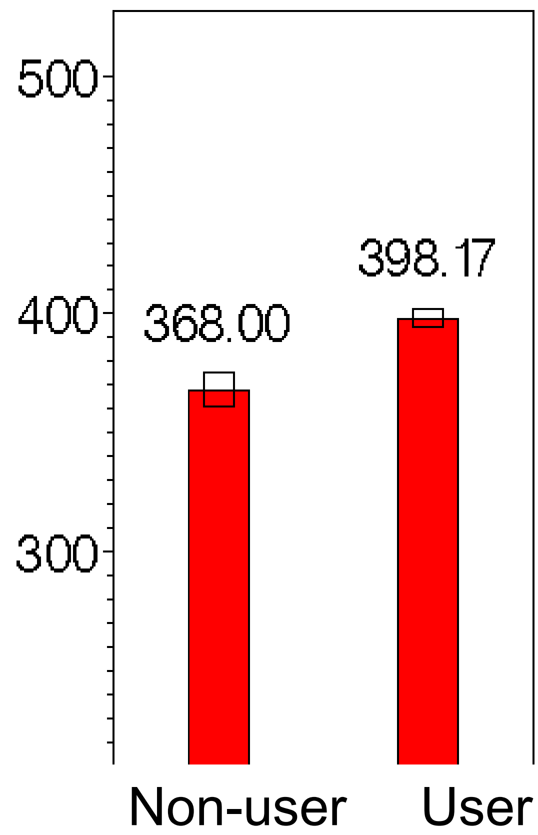
Group	% decrease in expenditures	(with costs)
Medicare Coord Care	-2%	+11%
CMP – diabetes	-14%	-7%
CMP - others	+0-3%	+4-7%

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

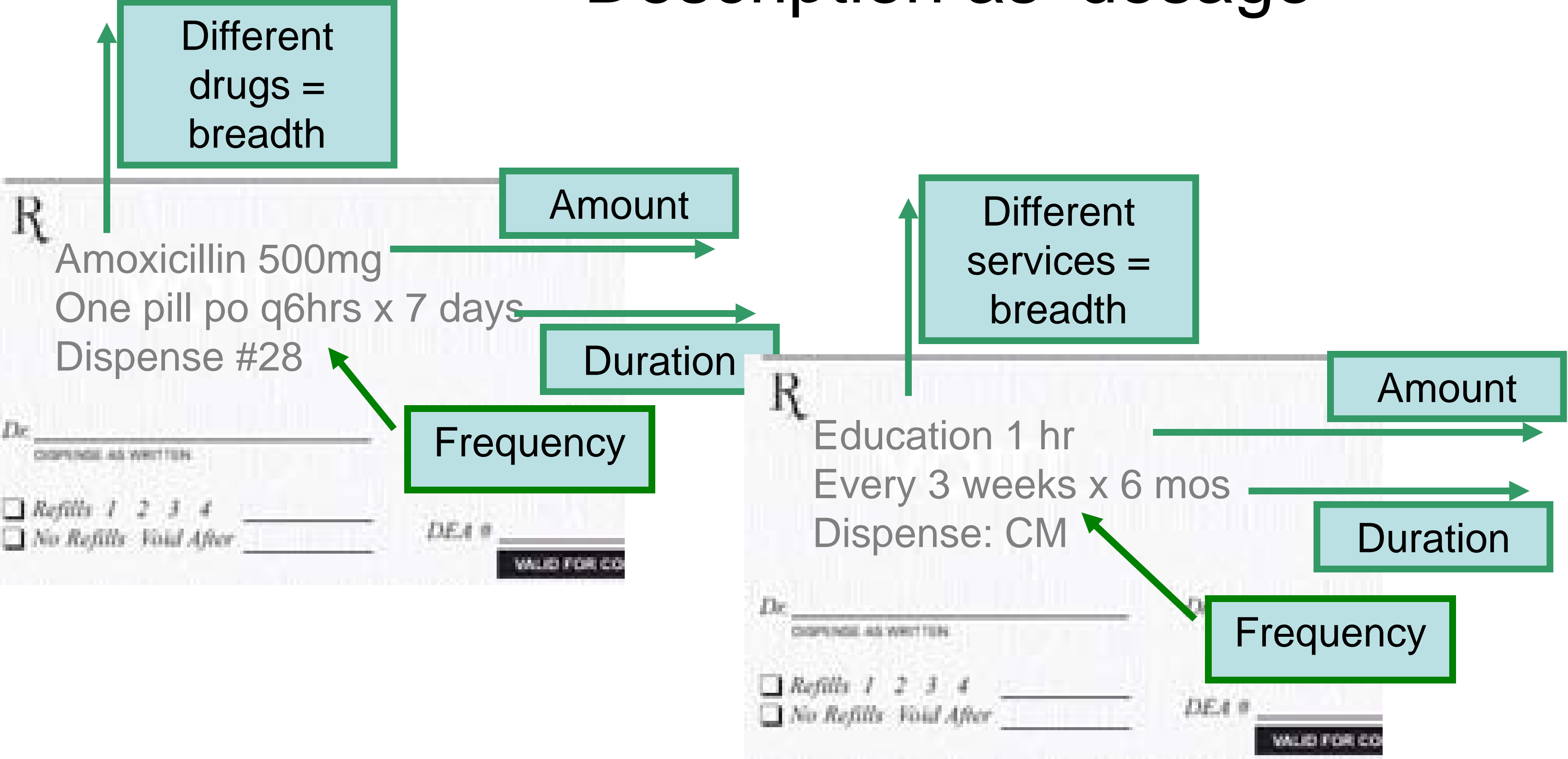
- Physicians who referred to care managers:

8% more productive

- Than peers in same clinic



Description as ‘dosage’



Reliability: Lack of a framework for describing differences

Care Coordination
Identify & Assess Patient
Co-Develop the Care Plan
Communicate with All Relevant Participants
Monitor and Adjust
Evaluate Health Outcomes

Service category
ALL
Following evidence-based protocols
General education
Communication
Motivating patients
Social issues / barriers