Care Management Plus: reorganizing people and technology in primary care settings for chronic illness care

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This presentation has three parts.

① OBJECTIVES	② CONTENT	③ Time	④ PRESENTERS
1. Recognize potential benefits from care management plus.	1. Benefits: Improved mortality and decreased hospital admissions, improved physician productivity.	30 min.	David A Dorr, MD MS
2. Employ new tools and processes for chronic illness care and for patient transitions.	2. Tools: CMT, curriculum, others.	30 min.	Ann Larsen, RN, CDE
3. Identify the benefits of coaching patients and families to assert a more active role in their care transitions.	3. Benefits: Fewer readmissions and smoother transitions through patient and family coaching and education.	15 min.	*Eric Coleman, MD, MPH* → David A. Dorr, MD MS

① OBJECTIVES

1. Recognize potential benefits from Care Management Plus.
2. Employ new tools and processes for chronic illness care and for patient transitions.
3. Identify the benefits of coaching patients and families to assert a more active role in their care transitions.

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.

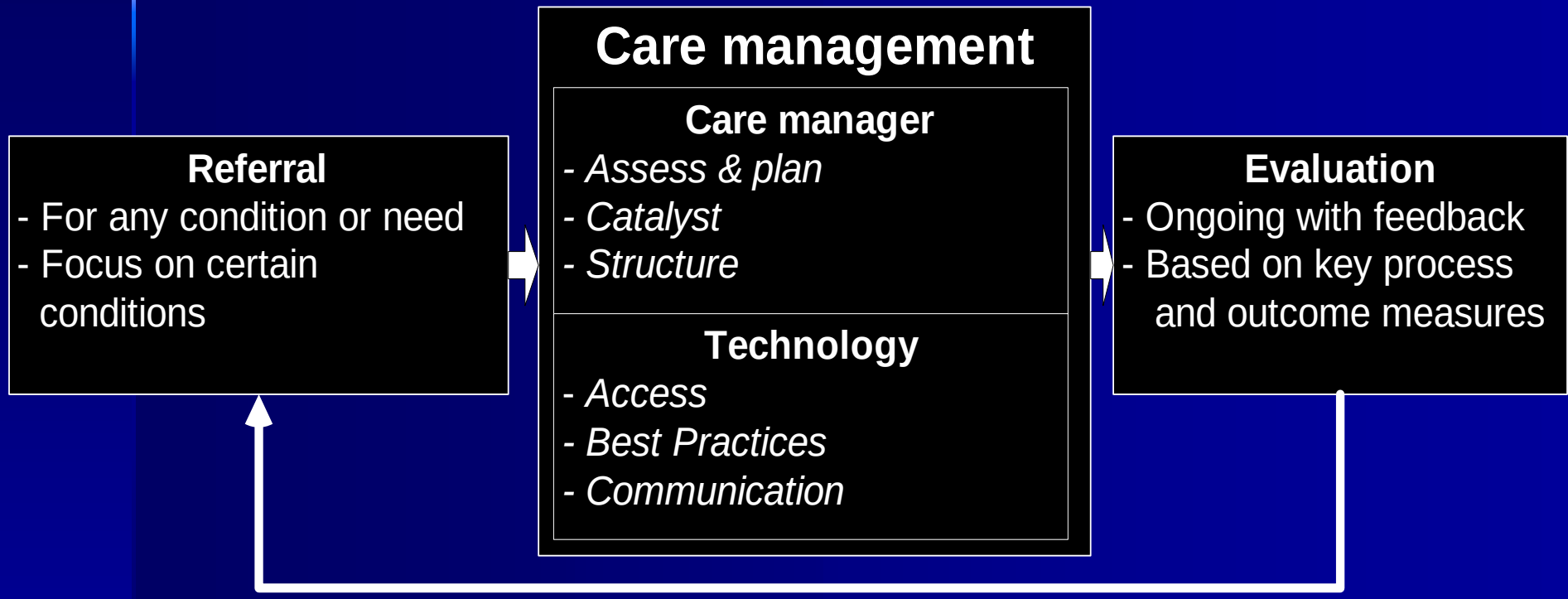
Ms. Viera's office visit

And Out in the hall:

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

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

Flexible, multicondition care management in primary care



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.*

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** success ...

CARE MANAGEMENT PLUS helps provide training and tools to make this happen!

Technology **helps the team plan and enact high quality care.**

- Care management tracking database
  - Available free of charge (requires MS Access)
  - *Training manuals*
- Patient worksheet (summary sheet)
- Dosage expertise / specification

www.intermountainhealthcare.org/cmt/

Encounter Tickler

Call

Care Manager Encounter Tickler List

Care Manager: Ann Larsen

Sched. Dt. and Time	Encounter Type	Enc. Reason	MM#	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)	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

Before 3/10

I+C. Medicaid

5 people

PCP Approval Test

Who it proves

Cleveland – do

Home – heal

Back 2-3 wks

Turn on 5

7-10 days

3 mo.

If prior cat offices

Patient Worksheet

11 July 2003

Patient Worksheet

v1.0.21

PATIENT NAME	SEX	DOB	MMI#	MRN#
TEST, A A	F	09/01/1964	545073664	545073664

Problems

Hyperthyroidism
status post appendectomy
Diabetes mellitus type 2, insulin treated
Hypertension
Coronary artery disease

Chronic conditions

Active Medications

1. - Digitoxin, 0.1mg, Tablet; 3 TABLET
2. - Entex LA (Guaifenesin/PPA HCl), 400-75mg, Capsule; 1 CAPSULE

Medications

Preventive Care

CV Risk	Pap Smear
5%*(1.4x)**	No Data

Preventive care summary

Clinical Laboratory Data

HgbA1c (<=7.0)		UA Protein		uAlb/Cr (<30)		24 Urine Albumin (<30)	
No Data	-	06/01/2001	Negative	No Data	-	No Data	-
		12/18/2000	Positive				
		11/06/2000	Negative				

Serum Cr		Serum K		Lipid Profile	LDL (<100)	Trig (<200)	HDL (>35)	CHOL (<200)
04/26/2003	1.1	04/26/2003	4.2	04/26/2003	107	93	50	176
10/25/2002	2.0	02/05/2003	[illegible]	[illegible]	[illegible]	85	41	212
02/27/2002	1.6	10/25/2002	[illegible]	12/24/2002	[illegible]	151	41	220
10/03/2001	2.3	01/29/2002	6.1	02/06/2003	168	189	33	239

TC/HDL Ratio		HCT		hsCRP		Homocysteine		Fasting Glucose	
04/26/2003	3.5	02/05/2003	35.9 %	04/06/2003	0.6 mg/l	04/06/2003	6 mcmol/l	02/25/2003	127
04/06/2003	5.2	10/02/2002	37.7 %	02/24/2003	1.2 mg/l			12/19/2002	127
02/24/2003	5.4	08/23/2002	45.0 %					01/02/2002	127
02/06/2003	7.2	07/19/2002	29.9 %					12/20/2001	127

Pertinent labs

Clinic Data

Date	Weight	BMI (<25)	Weight Class	Blood Pressure (<130/80)		Heart Rate	
No Data	-	-	-	01/25/2001	145/74 mmHg	01/25/2001	86
Last foot exam:		No Data	-				
Last dilated retinal exam:		No Data	-				

Pertinent exams

Reminders

Preventive

* Predicted % Risk over 10 years of a cardiovascular event (MI, revascularization, CVA, death).
** Relative Risk over 10 years of a cardiovascular event compared to lowest risk category.
Pap and pelvic suggested every 3 years after three normal yearly Pap tests.
For Patients with known Cardiovascular Disease, target LDL < 100.
Blood Pressure measurement is suggested for adults every two years.
Suggested follow-up for missing data: - Pap Smear
Pneumovax suggested for all patients age 65 [illegible] or age 2 with systemic heart disease.

Diabetes

Suggest repeat Urine Albumin Test [illegible]
Last ALT = 28 on 4/26/2003 & AST = 66 on 4/26/2003
Suggested follow-up for missing data: - HgbA1c - Dilated Retinal Exam - Foot Exam - Weight

Hypertension

ACE Inhibitors (ACEI) or if ACEI intolerant, Angiotensin II Receptor Blockers (ARBs) or the combination of ACEI or ARBS and Diuretics are the recommended initial drug therapy for patients who are diagnosed with hypertension in conjunction with Diabetes.

Passive reminders

Organized by illness

Patient Information : Form

Patient Information

ID Number: | Last Name: TEST | First Name: TEST | DOB: | Age: 19-44 | Race:

Phone: (800) 800-8000 | Cell Phone: | Email: | PCP: Allen, Mitch | PCP Phone: (800) 888-88

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
Edit	2/28/2005	CHF	Active
		Anxiety	Active
Edit	3/30/2004	Depression	Active

	Sched Date	Sched Time	Encounter Type	Status
Edit	4/30/2005		Telephone Contact	Pending
Edit	1/		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	✓	0		No Risk							
Edit	9/1/2004	0	4	Not at all	✓	0		No Risk				16	45	14	52
							1. Thoughts Only	Low Risk							

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 | Gener Clinical by Da

CMT database - example

Record: 1 of 1

Impact of Care Management

Effectiveness and timeliness

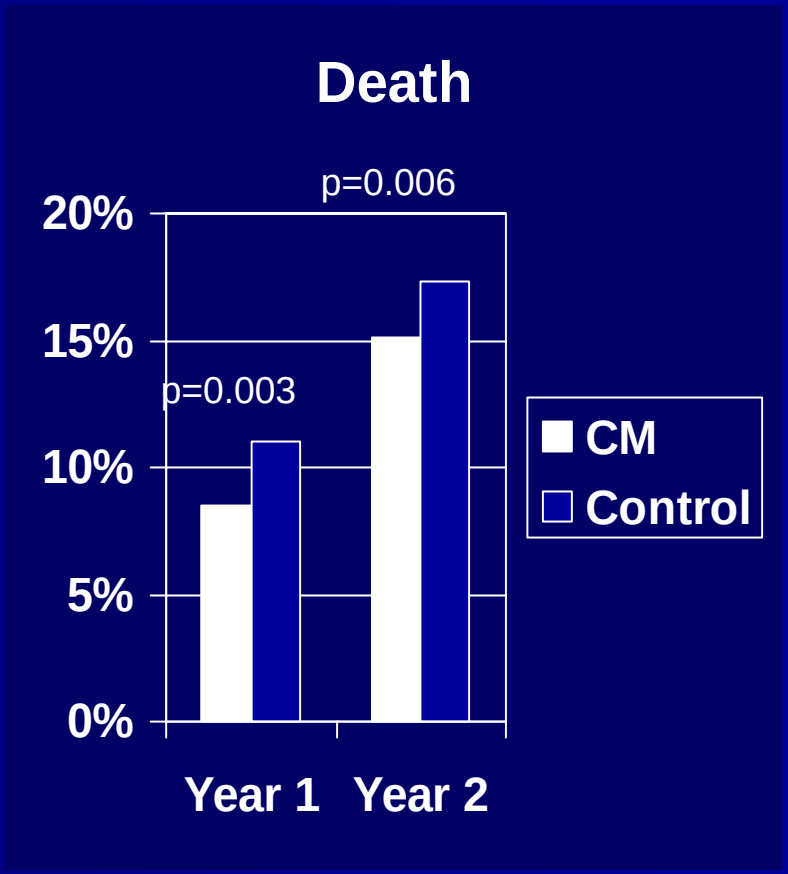
- Diabetes (HSR, 2005 and new data for seniors)

Efficiency and satisfaction

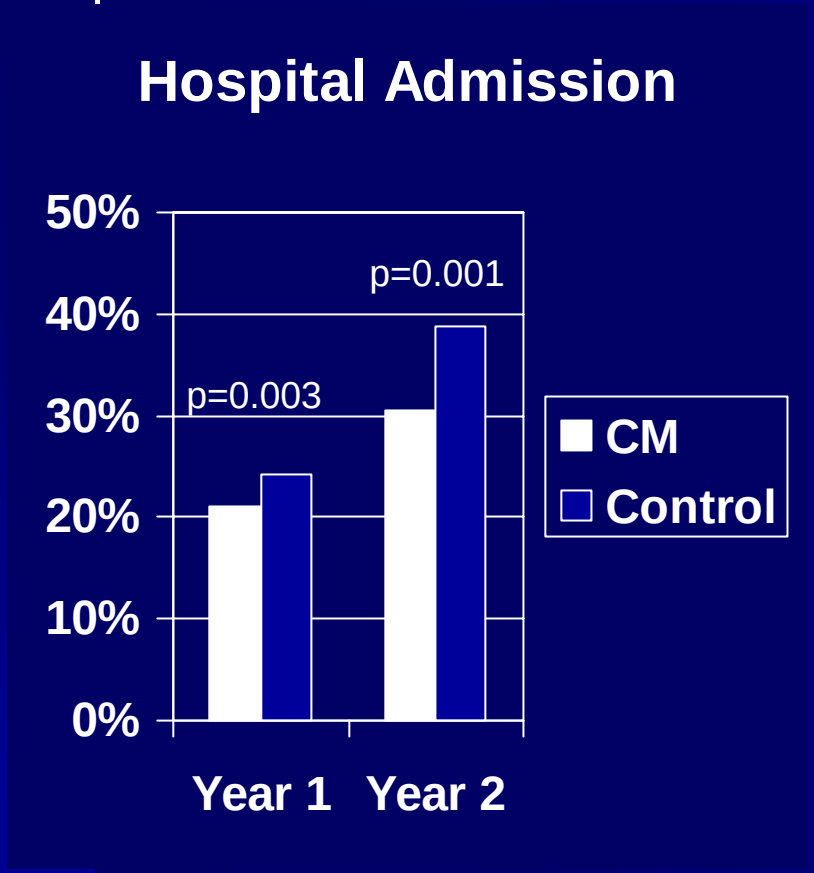
- Physician and patient experience
- Productivity

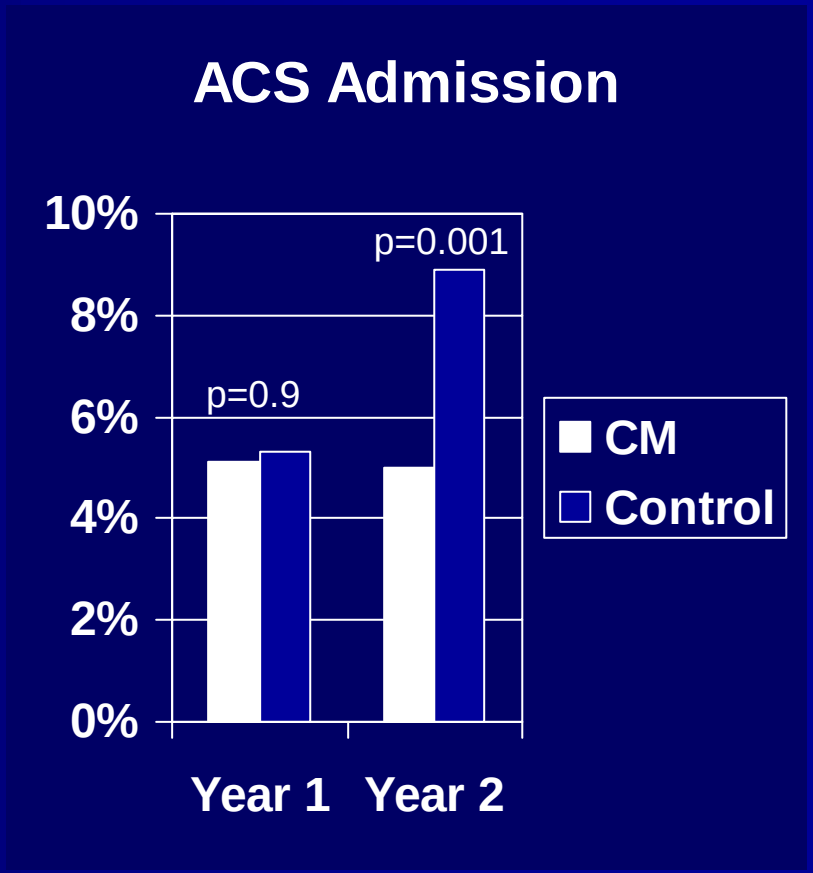
Retrospective diabetes: Death

- Diabetic patients who were sent to care managers were significantly less likely to die in the first and second year than their matched controls



Hospitalizations



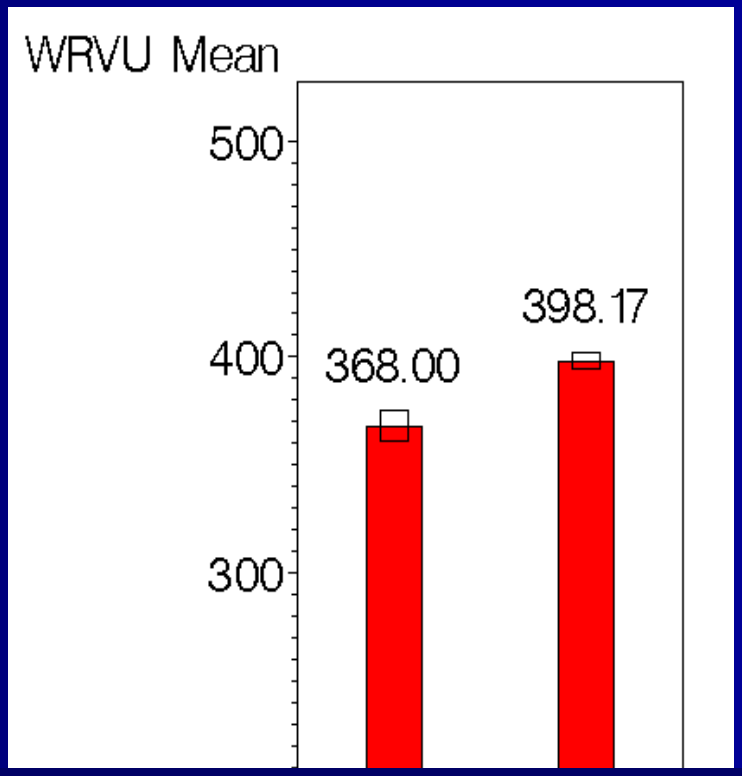


Productivity – same clinic

- Physicians who referred to care managers:

8% more productive

- Than peers in same clinic



8%

Benefit / Cost Analysis

Costs / Clinic	
Salary + training + admin	$90,000
Benefits / Clinic	
Productivity (7 MD's)	$88,200
Hospitalizations ↓ *	$0
Total (benefits – cost)	-$1,800

* Society would save, per clinic, $79,092 in reduced hospitalizations.

Note: overhead costs, IS costs are assumed to be constant. Equipment costs included.

Our framework for dosage: Drug therapy

Different services
= breadth

Amount

Duration

Frequency

Education 1 hr
Every 3 weeks x 6 mos
Dispense: CM

Adapted from work by Huber et al.

Dosage & adherence

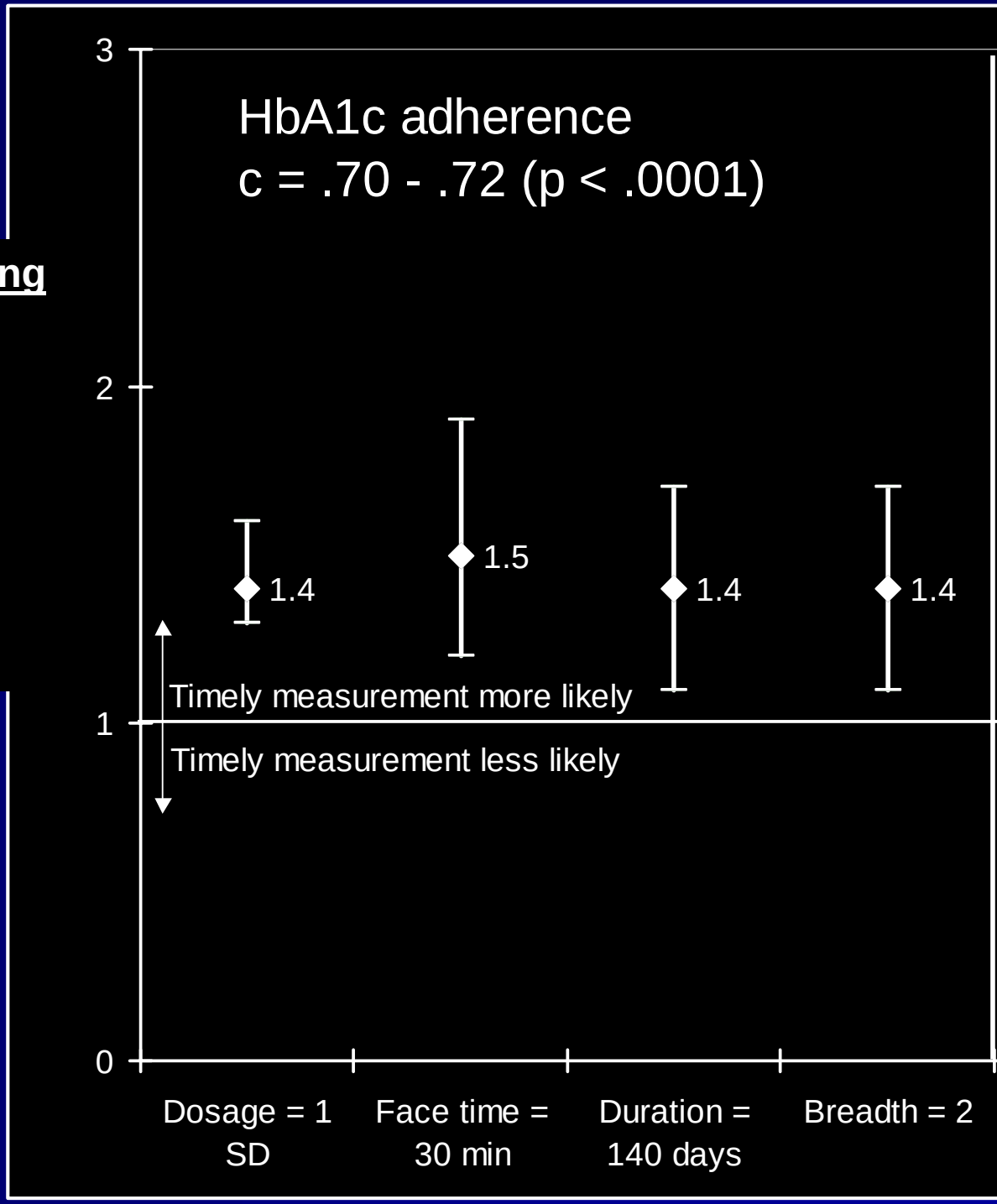
For Adherence to HbA1c testing

Higher dose:
- ***40%*** relative increase

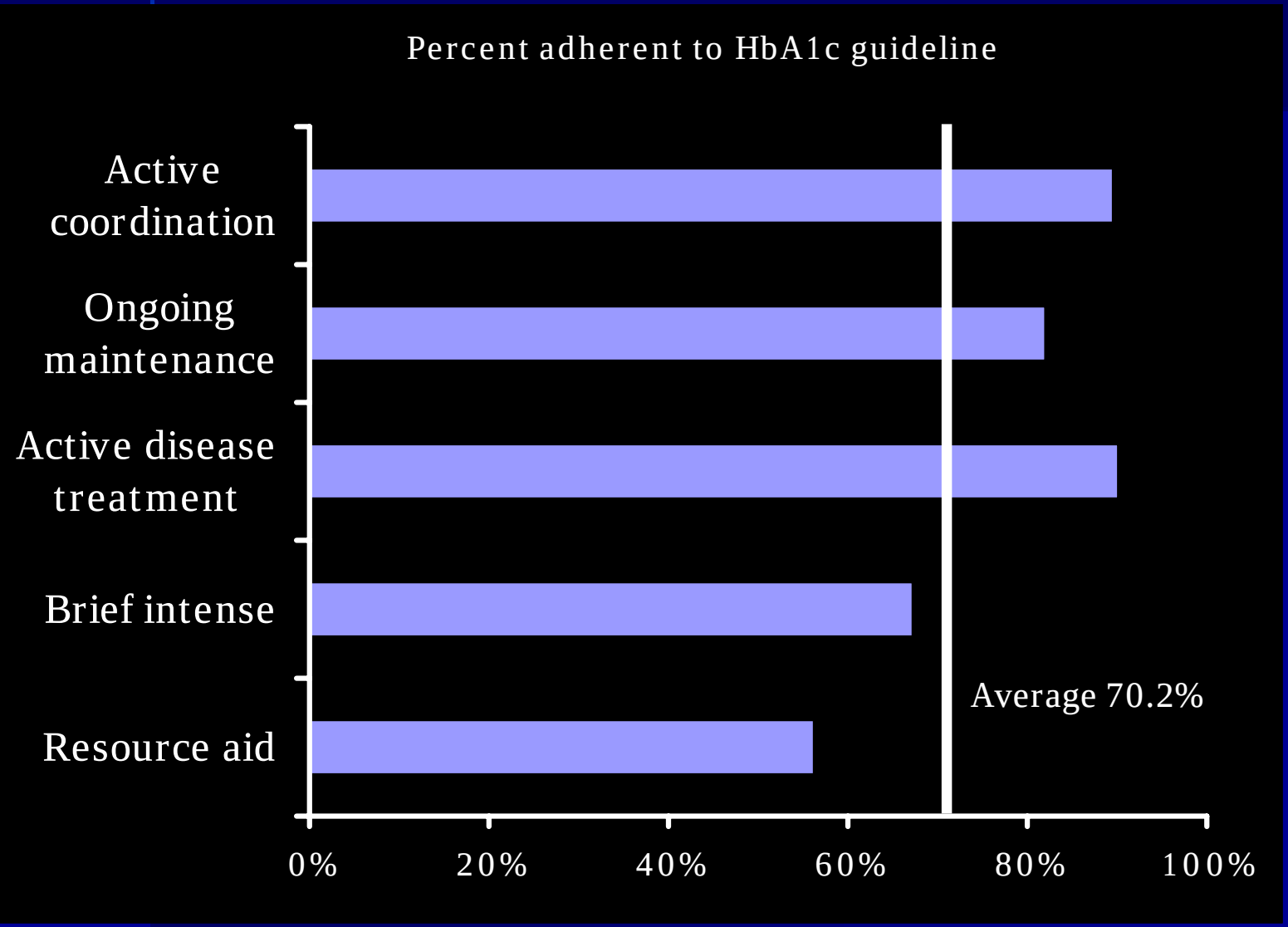
Increased face time
- ***50%*** increase

Longer duration
- ***40%*** increase

Increased # of services
- ***40%*** increase



Patterns of care: What works?



Active disease treatment associated with reductions in HbA1c.

Brief intense also associated with reductions in HbA1c and LDL.

Thank you! & Questions?

Care Management Plus (Intermountain)

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Care Transitions (Colorado)

www.caretransitions.org

Thank you