



Implementing the Patient Centered Medical Home: Lessons Learned From a Care Coordination Intervention in Rural Primary Care Practices

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Objectives

- 1) List the benefits of a proven model of primary care based care management and the accompanying information technology tools.
- 2) Outline essential steps of preparing and implementing the medical home and the key elements for practice change.
- 3) Identify qualitative themes and barriers from team members, pre and post implementation of nurse care management.
- 4) Stimulate ideas for clinic improvement.





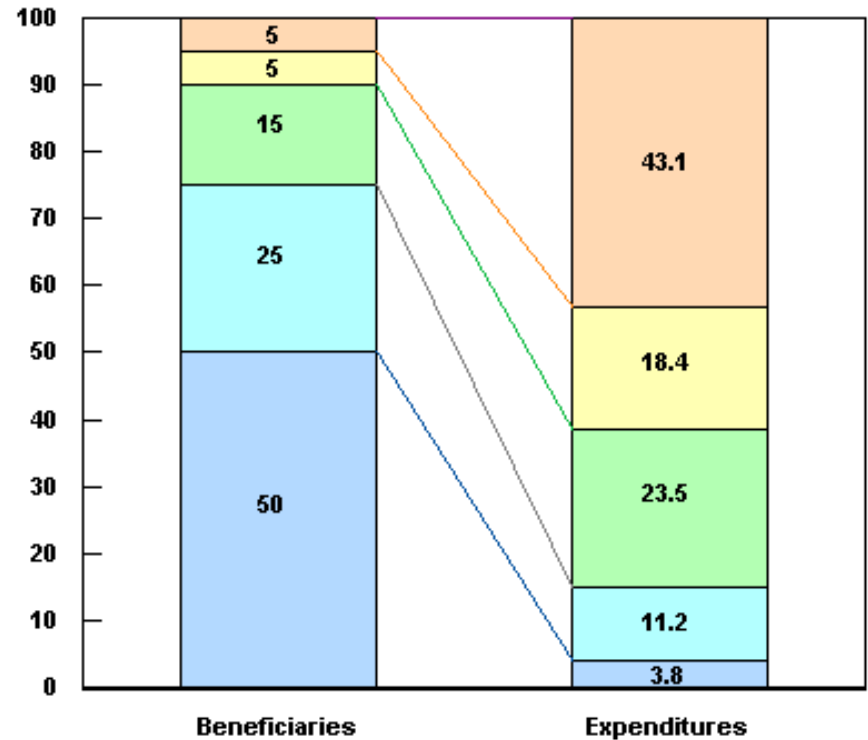
Outline

- I. Background
- II. Case Discussion
- III. Model and Outcomes
- IV. Rural Primary Care Practice Experience



Background

- Chronic Conditions, especially multiple increase needs and costs
- Older adults are fastest growing segment of the population
 - 12% population (now)
 - 23% population (2040)
- Older Adults: Age-Related changes as well as Chronic Conditions





P4P

Disease Management

CCM

QI

Case Management

Meaningful Use

Patient Centered

Shared Decision Making

Medical Home

Population Management

Self Management





Case Discussion: Ms. J

74 years old

Established patient

Multiple Medical Conditions
(Multi-Morbidity)



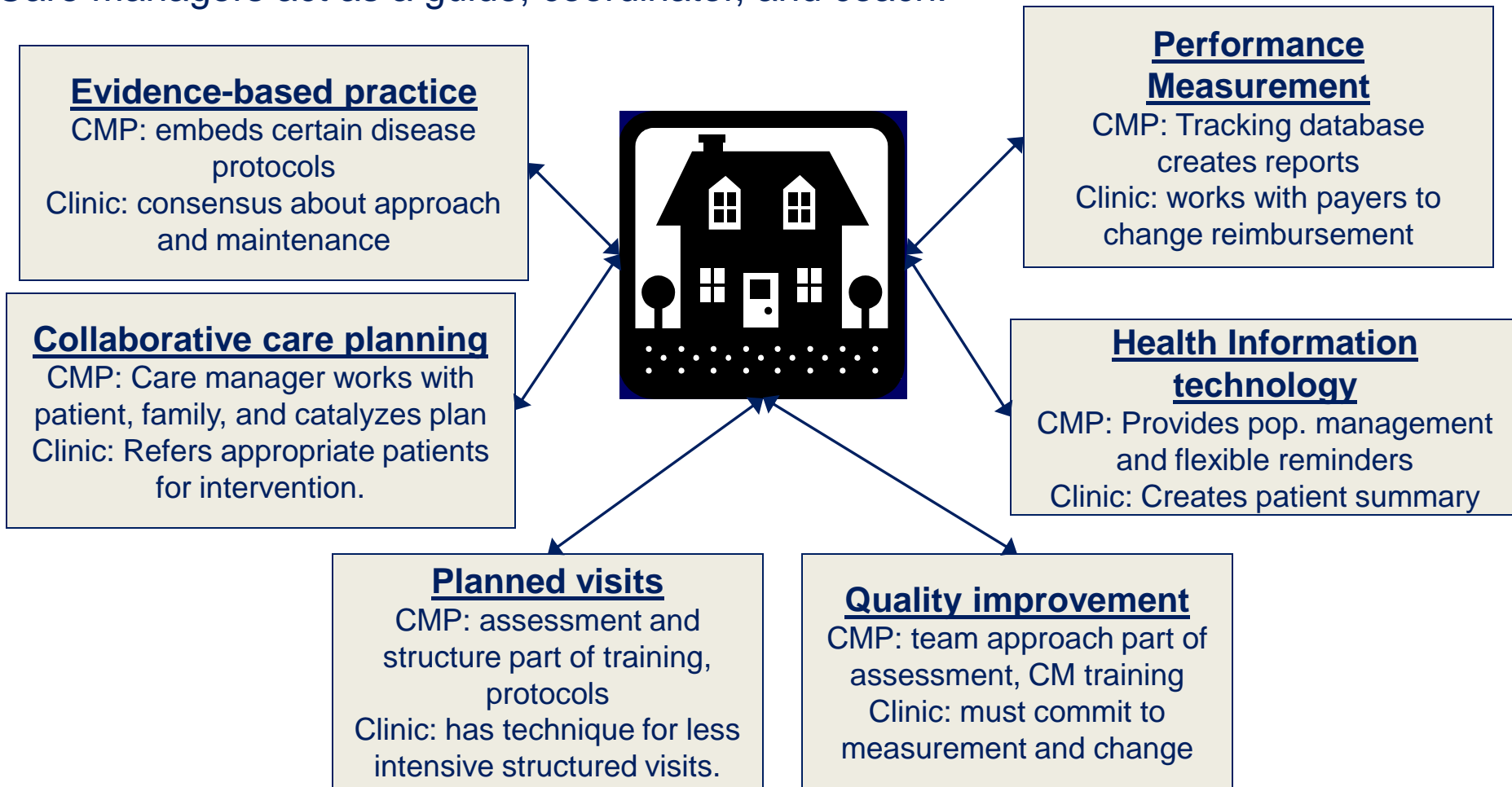
Key Attributes: Advanced Medical Home

- Organize the delivery of care for all patients according to the Care Model
- Use of evidence-based medicine and clinical decision support tools
- Coordinate care in partnership with patients and families
- Provide enhanced and convenient access to care
- Identify and measure key quality indicators
- Use health information technology to promote quality, safety, security of information, and health information exchange
- Participate in programs that provide feedback on performance & accept accountability for process improvement and outcomes



Care Management Plus (CMP) can help create a medical home

Care Managers act as a guide, coordinator, and coach.





Physician Practice Connections – Patient-Centered Medical Home Standards (CMS)

- Access and Communication
- Patient Tracking and Registry
- Care Management
- Patient Self Management Support
- Electronic Prescribing
- Test Tracking and Follow-Up
- Referral Tracking and Coordination
- Performance Reporting and Improvement
- Advanced Electronic Communication



Meaningful Use of Information Technology





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Key Functions

Communication

Coordination

Tracking

Case Management

Continuity of Care






Patient Worksheet

- Summary of patient information
 - Conditions, medications, allergies
- Lab and clinic data relevant to chronic conditions
 - Function, Diabetes, heart failure, depression, hypertension
- Includes advisories for preventive care and chronic conditions





Patient Worksheet

16 November 2006		 Patient Worksheet Selected to Print for: All Patients, All Sections, Last Clinical Note			u1.07.0 Comprehensive Version	
PATIENT NAME TEST, BED		SEX F	DOB 01/01/1911	MIN# 650730	MRN# 5992114	
Problem:						
Diabetes Mellitus, Type 2 Hypertension		Chronic conditions				
Active Medications:						
1. - Glucophage (Metformin HCl), 500mg, Tablet, 1 TABLET, Daily 2. - Simvastatin, 40mg, 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						
Allergies:						
(-) Penicillins - A Drug Allergen Group; Reaction(s): Rash						
Disease Management:						
ADL 11/16/2006 5		Pain Score (0-10) 11/16/2006 4		MMSE 11/16/2006 24		
Preventive Care:						
Pap Smear No Data		Mammogram No Data				
Clinical Laboratory Data:						
HgbA1c (<=7.0) No Data		U.A. Protein No Data		uAlb/Cr (<=30) No Data		24 Urine Albumin (<=30) No Data
Serum K No Data		Lipid Profile No Data		LDL (<=100) No Data		Trig (<=150) No Data
HCT No Data		HsCRP No Data		HDL (>=45) No Data		TC/HDL Ratio No Data
Homocysteine No Data						
Clinic Data:						
Date 01/16/2006		Weight 144 lbs	BMI (<=25) 23	Weight Class Normal	Blood Pressure (<=130/80) 01/16/2006 122/74 mmHg	
Heart Rate 01/16/2006 74						
Last foot exam: 11/2005		Abnormal		Last dilated retinal exam: 11/2005		Abnormal
Reminders:						
Lab						
<input type="checkbox"/> Creatinine - Patient on Metformin product(s) and no Creatinine on record.						
<input type="checkbox"/> HgbA1C - Urine Albumin Test - DL - Serum Cr (should be done on all Patients with Diabetes)						
<input type="checkbox"/> HCT - Serum K (should be done on all Patients with Diabetes)						
Procedure:						
<input type="checkbox"/> Mammogram - Suggested yearly for women age 40 and above, every 1-2 years age 50 and above.						
<input type="checkbox"/> Pneumonia - Suggested for all Patients age 65 and above, or those with 2 or more risk factors for disease.						
<input type="checkbox"/> Tetanus Immunization - Suggested yearly.						
<input type="checkbox"/> DEXA Screening - Suggested for women age 65 and over. Follow-up screening for those treated for osteoporosis recommended every 2-3 years.						
<input type="checkbox"/> Colon Cancer screen - Suggested yearly rectal test or sigmoidoscopy Q 5 years, or colonoscopy Q 10 years.						

Wilcox, Proc of AMIA Symp, 2005





Senior Care Resources

- Access to external information relevant to geriatric care
- Supports collaborative care with caregiver



Senior Care Resources



The screenshot shows a Microsoft Internet Explorer browser window with the title bar 'Caregiver Resources - Microsoft Internet Explorer'. The address bar contains navigation icons for Back, Forward, Stop, Home, Search, Favorites, and Media. The main content area features a blue header with the text 'SENIOR CARE RESOURCES'. Below the header, the page is organized into several sections with blue hyperlinks:

- DISEASE INFORMATION**
 - [Alzheimer's](#)
 - [Arthritis](#)
 - [Cancer](#)
 - [Type II Diabetes](#)
 - [Heart Diseases and Conditions](#)
 - [Incontinence](#)
 - [Multiple Sclerosis](#)
 - [Osteoporosis](#)
 - [Parkinson's](#)
- HOUSING**
 - [Nursing Home Checklist](#)
 - [Locate Nursing Homes by Zip](#)
 - [Locate Nursing Homes by Health Condition/Money](#)
- MEDICARE / VA BENEFITS**
 - [Federal, State, and County Benefits Available by Zip](#)
 - [Information about Medigap Insurance](#)
 - [Publications for Medicare Coverage](#)
 - [Veteran Benefits](#)
- CAREGIVER RESOURCES**
 - [Bathing, Toileting, and Oral Care](#)
 - [Community and County Resources](#)
 - [Drug Related Problems in the Elderly](#)
 - [Elderly Driving Information](#)
 - [Elder Abuse](#)
 - [Home Safety Checklist](#)
- GENERAL HEALTH INFORMATION**
 - [MavoClinic.com](#)



Care Manager Tracking (CMT)

- Supports management of patients by care managers
- Organizes information: geriatrics, depression, heart failure, diabetes, hypertension
- Provides reminders for follow-up of chronic disease
- Supports research
- Produces reports on care management
- Provides population reporting / management



Patient Information

ID Number: Last Name: First Name:
 DOB: * Age: Sex:

Phone: Cell Phone: Email:
 PCP: PCP Phone:

Insurance: Facility:
 Diab Collaboration FPP:

Date of Referral: * Care Mgr: Status:

Patient Search

ID Number:

Last Name:

First Name:

Care Mgr:

Diag. Date	Diagnosis	Status
<input type="button" value="Edit"/> 2/28/2005	CHF	Active
<input type="button" value="Edit"/> [blurred]	[blurred]	Active
<input type="button" value="Edit"/> 3/30/2004	Depression	Active

Sched Date	Sched Time	Encounter Type	Status
<input type="button" value="Edit"/> 4/30/2005		Telephone Contact	Pending
<input type="button" value="Edit"/> 1/30/2005		Hon	[blurred]
<input type="button" value="Edit"/> 1/26/2005		Telephone Contact	Resolved
<input type="button" value="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
<input type="button" value="Edit"/> 1/26/2005	1	3	Somewhat	<input checked="" type="checkbox"/>	0		No Risk						
<input type="button" value="Edit"/> [blurred]							No Risk		16	45	14	52	
<input type="button" value="Edit"/> [blurred]							Low Risk						

Diab Assess Date

*

CMT database - example

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 6:30 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

Task List

Before 3/10

IHC. Also detail

do. wait pay at

pm from 8:30-3:30

5 people

for Appose Test

who 14 people

Home - do

Back - do

Turn on 5'

7-10 deep - 30 min.

If from cat effluents

Dr. McBride





Training






Does CMP make a difference?

Study design:

- Retrospective cohort
- Comparison of care managed (CM) patients (7 clinics) with patients from similar clinics w/out care managers (n=4)
- CM patients matched to controls on key characteristics

Outcomes

- Disease control, death, hospitalization
 - Efficiency
- 



Care Management Plus: RESULTS

Health outcomes

- ✓ **Reduced** hospital admissions: For patients with complex illness: Absolute reduction **4.5%** at one year & **8.7%** at two years; reduction for all patients **2.9%** at two years.
- ✓ **Increased** Guideline Compliance: **24-42%** increased compliance for diabetes, depression.
- ✓ **Reduced** mortality: Absolute reduction of 2.8% at 1 year and 3.4% at two years

Cost savings / Productivity

- ✓ **Total Savings**: For patients with complex illness, est. savings to Medicare **\$163k** per practice with expense of \$90k.
- ✓ **Savings** per patient: Decrease of **\$640** per patient per year
- ✓ **Increased** productivity: **8-12%** increase in work Relative Value Units / MD

Satisfaction

- ✓ Patient / Families: ‘ a life-saver’, ‘the reinforcement was wonderful’, ‘they really care’, ‘[CM] gives me more time ... and answers’
- ✓ Physician/ Nurses: ‘I am working smarter, not harder’, ‘Patients are less anxious, care more consistent, team is stronger’ ‘Wish I had these skills years ago’ ‘(Computer tools are) an absolute godsend’

Deaths: 6.5% died in CM+ and 9.2% in control at 1 year; 13.1% died in CM+ and 16.6% in control at 2 years.

Hospitalizations: Complex illness including diabetes: 1 year – CM+ 21.2%, Control 25.7%; 2 years 30.5%; control 39.2%; all: 31.8% vs 34.7% at 2 years (-2.9%)

Peer-reviewed references available online at www.caremanagementplus.org



Dissemination: to 75 clinical teams



Care Management Plus : a proven Medical Home model for high need, high cost beneficiaries, caremanagementplus.org



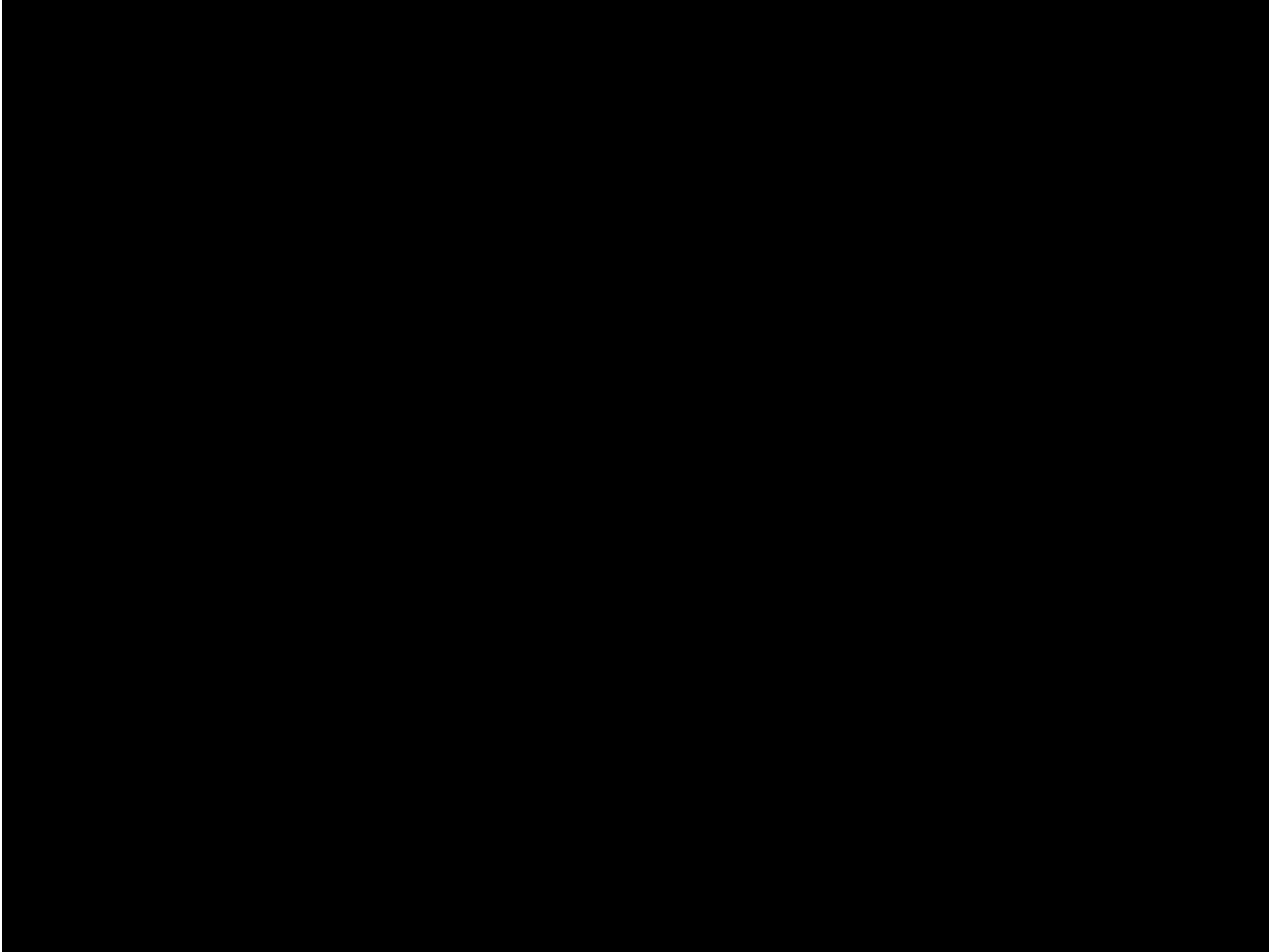
Patient

- 78 year old with coronary artery disease, Class C heart failure, diabetes type 2, inflammatory bowel disease
- Clinic Perspective





His Perspective





His Perspective

- Making change
- Total person
- Feedback
- Spectrum of care
- Integration of physical, mental, spiritual
- Quality of Life





Lessons Learned From a Care Coordination Intervention in Rural Primary Care Practices

