Disease Management Going Forward - *Hopeful, but can we be optimistic?*

Paul Wallace MD
Permanente Federation
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Paul.Wallace @kp.org

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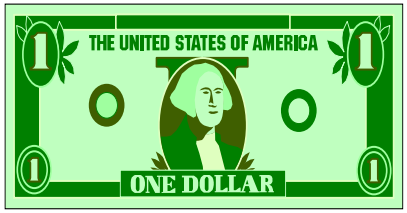
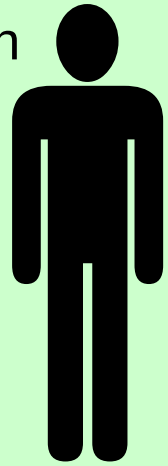
The Business of Health Care in 2007… Chronic Health Conditions Underlie the Bulk of Health Care Costs



Diabetes
Heart Failure
Coronary Artery Disease
Depression
Chronic Pain
Cancer
Asthma and COPD
Dementia
Falls
Obesity
…
Co-morbidities



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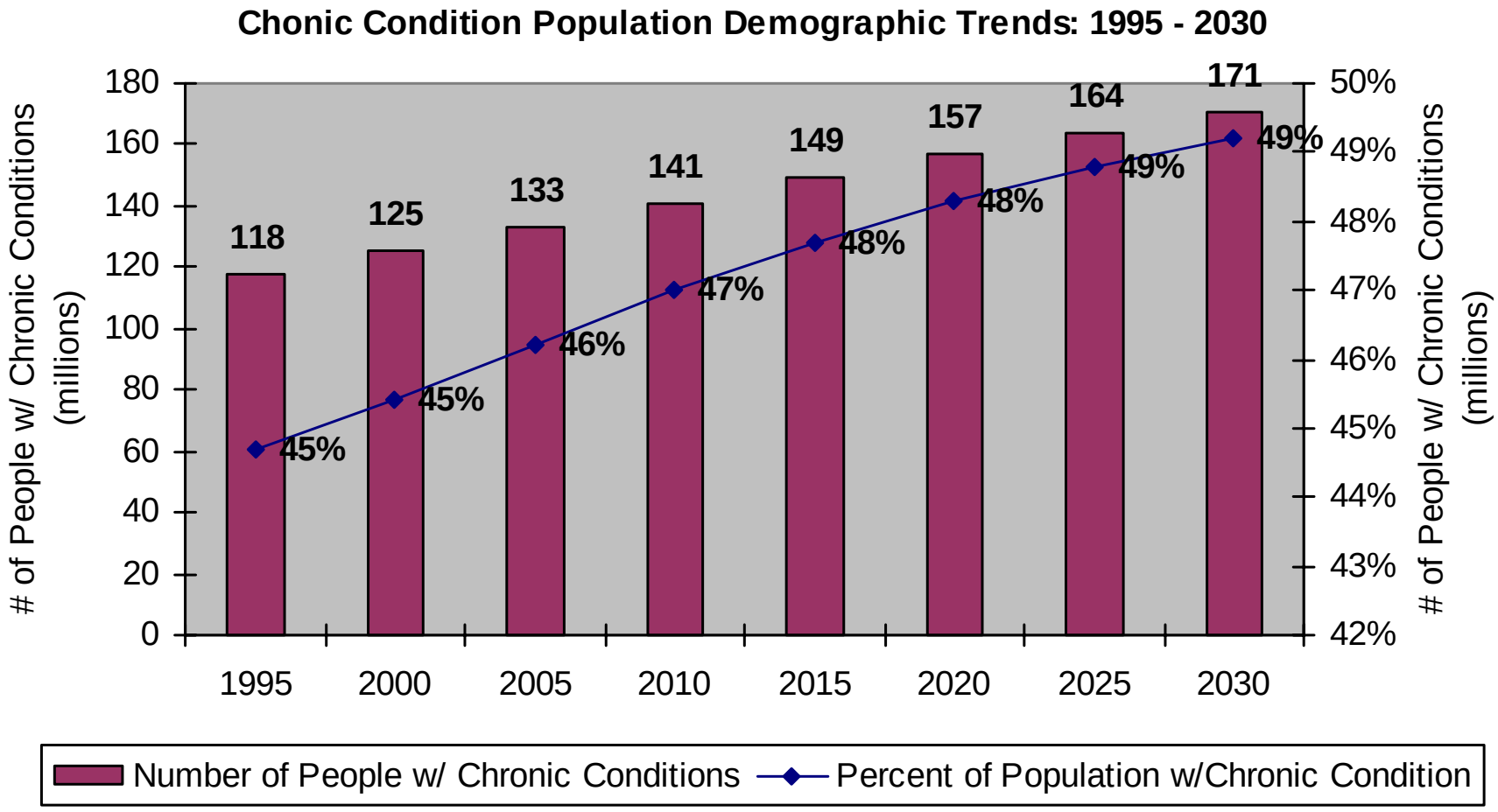
Opportunity: The Demographics of Chronic Conditions



Source: PiperJaffray Report, Fall 2004. Originally presented by Partnership for Solutions, Johns Hopkins, Dec 2002 and Rand Corp Oct 2000.

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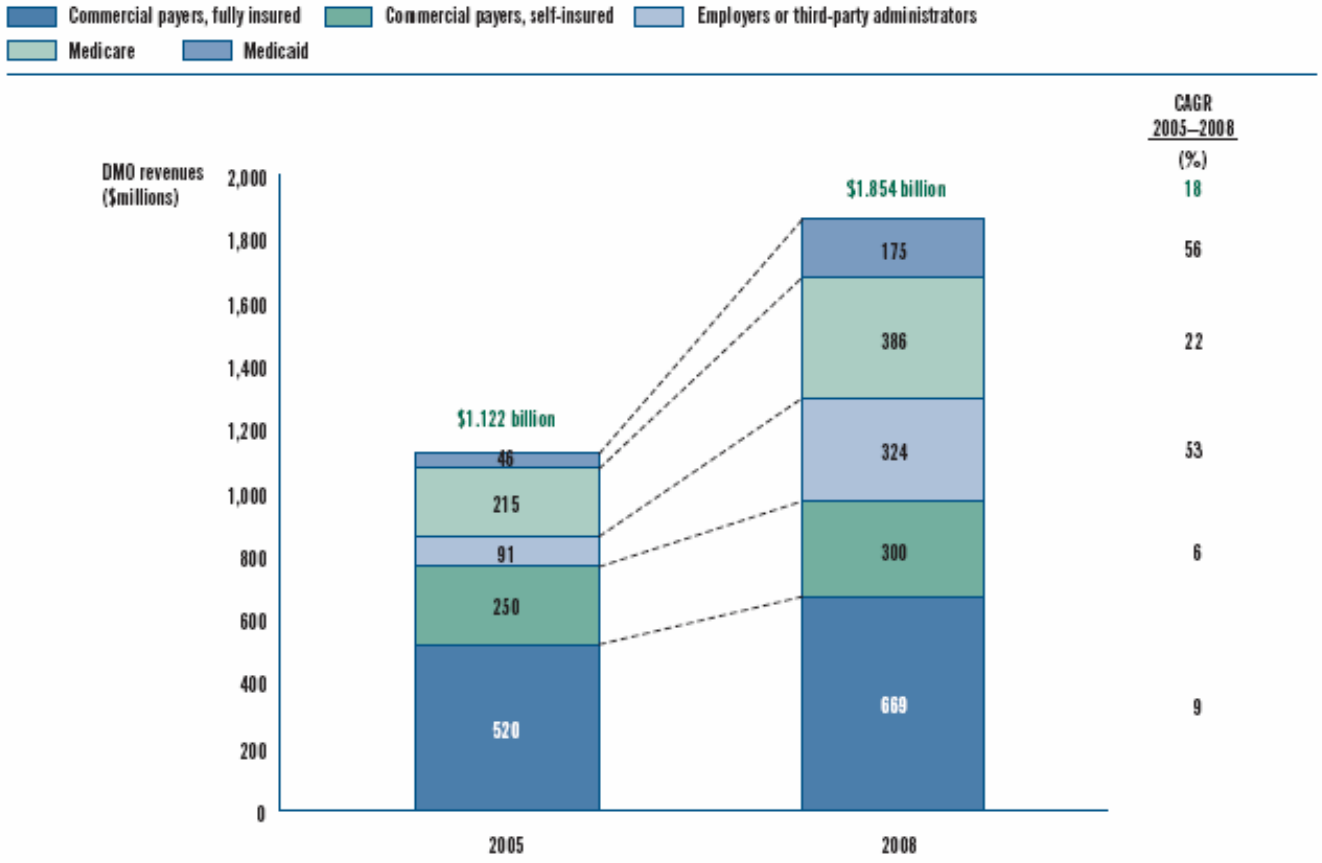
Hopeful…

EXHIBIT 8

THE DMPC ANTICIPATES SIGNIFICANT GROWTH IN REVENUES AMONG DMOs



Sources: Health Industries Research Companies (2005); data were updated by the Disease Management Purchasing Consortium in November 2005.

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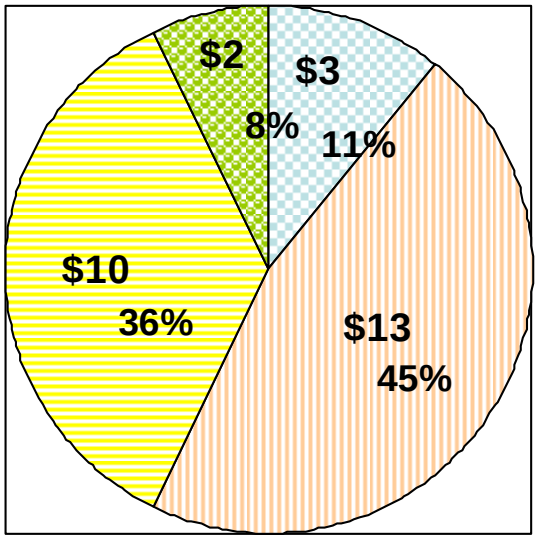
Market Assessment: 2010 Market Estimates

As an emerging industry, the estimates for the true DM market size can vary significantly. While previous estimates were for "pure-play DMOs", JP Morgan and Matria estimate the total potential market to be up to $30 billion by 2010, including the public sector.

JP Morgan 2010 Market Estimates
Potential Market (in billions)



Total = $30 Billion

Fortune 1000 Ers **Small/Mid Employers** **Medicare** **Medicaid**

Source: Matria presentation at the JP Morgan Annual Health Care Conference, January 2005.

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My 3 Critical Questions in the Pursuit of Optimism...

- Can DM help evolve the value proposition for health to involve more than direct medical costs and returns?
- Can DM succeed with government programs?
- DM and Docs - How does DM relate to "The Advanced Medical Home" movement?
  - What is the evidence base for managing complex co-morbid patients?
  - Will DM fill the role of ASP (and "KSP" – Knowledge Service Provider") for chronic care practice?

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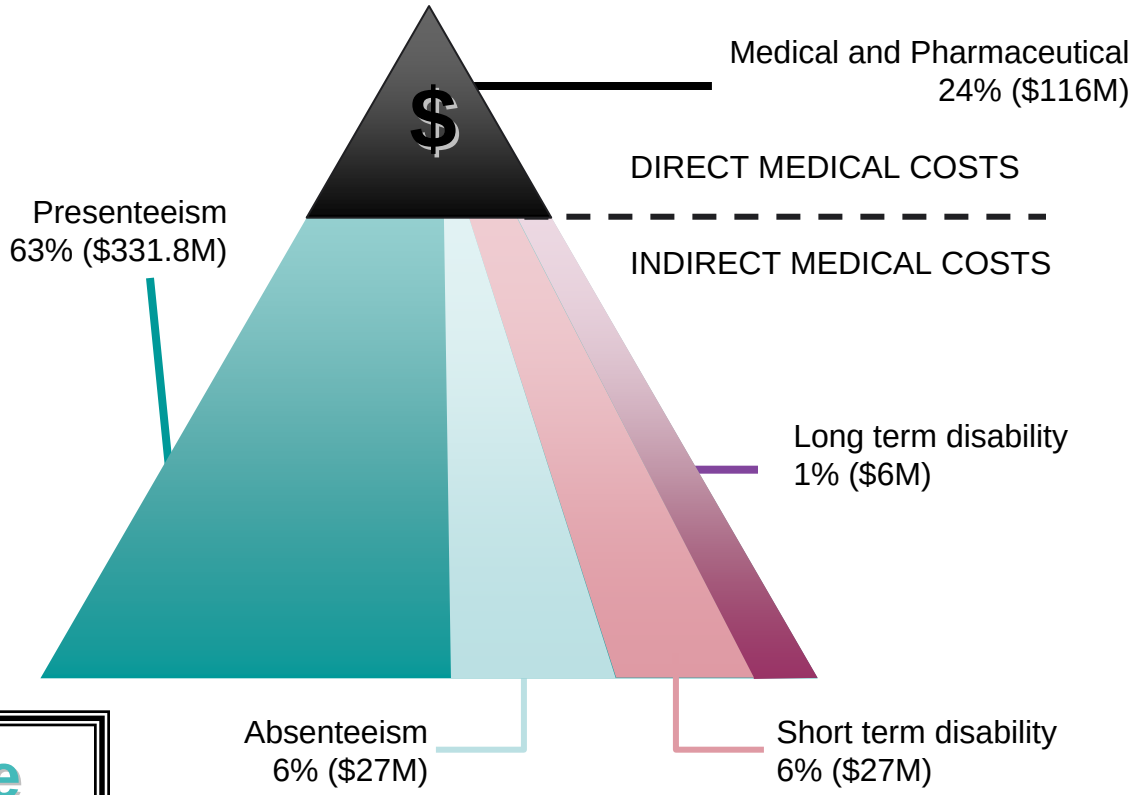
Direct and Indirect Health Care Costs...
An Employer/Purchaser Perspective

Some Drivers

Direct Medical Cost:
Chronic Conditions

Presenteeism (on-the-job productivity loss that is illness related):
Allergies
Lower Back Pain
Depression
Migraine
Arthritis
GERD

Coordinated Medical and Disability Management:
Coordination of Benefits
Elimination of Test and other Service Duplication
Reduced Variation in Granting Work Time-off



How many of these drivers can be in scope for "DM"?

Figures based on annual data for 2000. Workers' compensation accounted for less than 1% of indirect medical costs. Source: Bank One as printed and copyrighted by Harvard Business School Publishing Corporation

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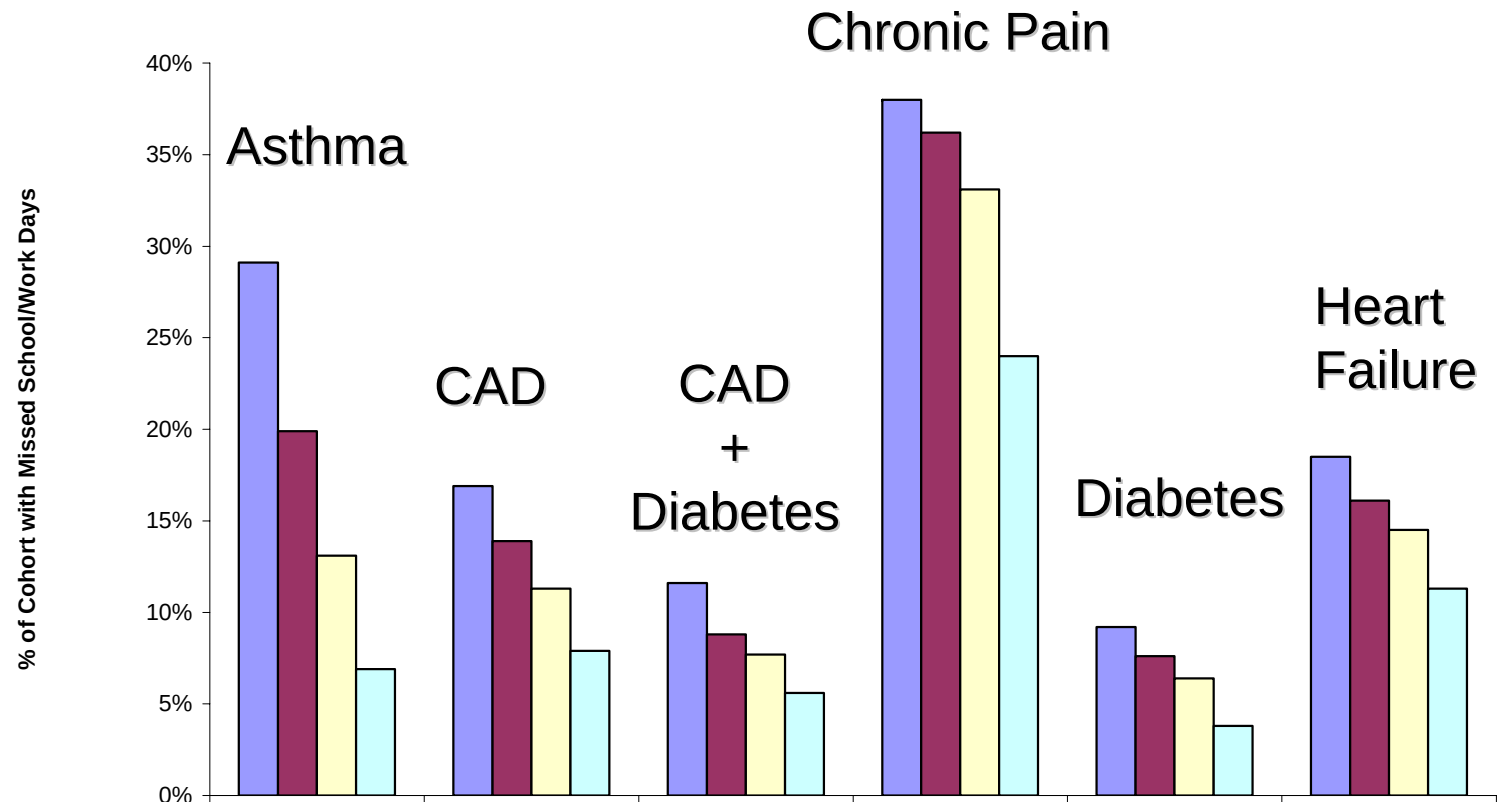
Missed School/Work Days by Chronic Condition in the 12 Months Prior to Interview



	AS	CAD	CADDM	CP	DM	HF
1 or more days	29.1%	16.9%	11.6%	38.0%	9.2%	18.5%
3 or more days	19.9%	13.9%	8.8%	36.2%	7.6%	16.1%
5 or more days	13.1%	11.3%	7.7%	33.1%	6.4%	14.5%
10 or more days	6.9%	7.9%	5.6%	24.0%	3.8%	11.3%

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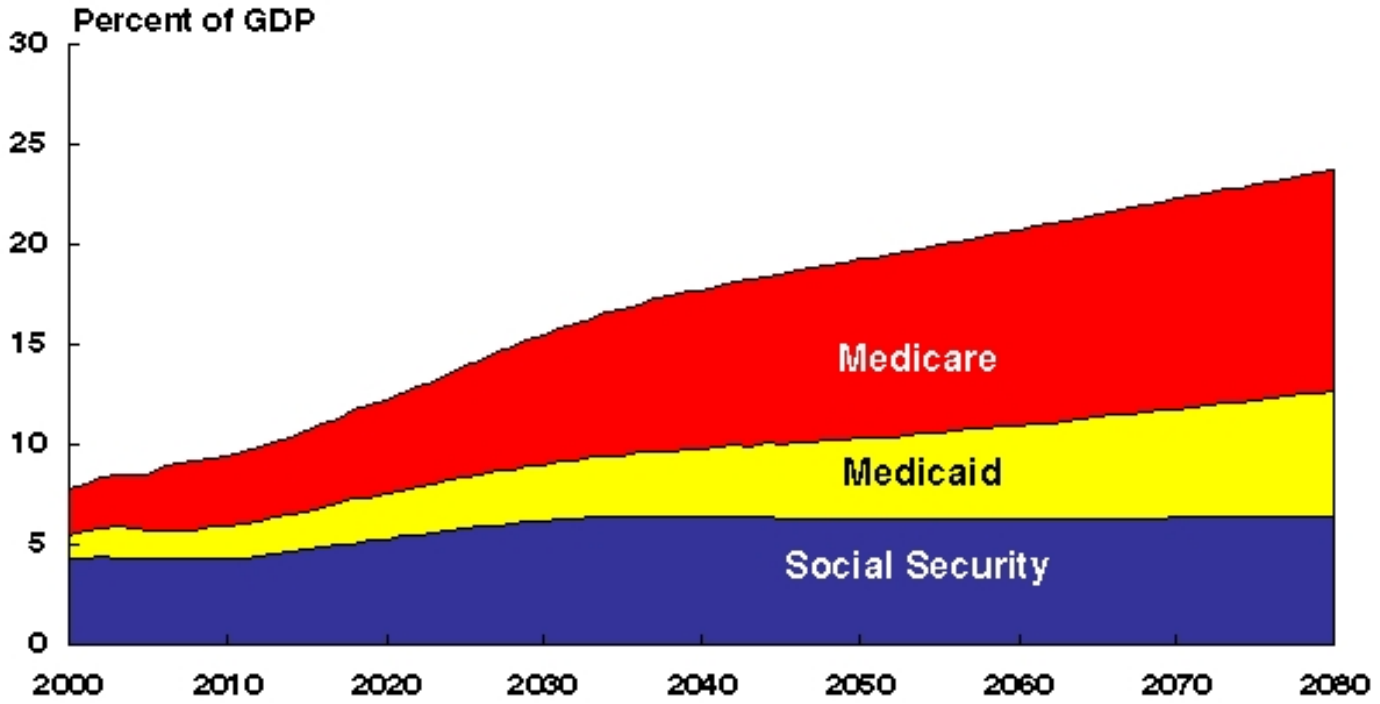
The Public Purchaser...

Social Security, Medicare, and Medicaid Spending as a Percent of GDP



Source: GAO analysis based on data from the Office of the Chief Actuary, Social Security Administration, Office of the Actuary, Centers for Medicare and Medicaid Services, and the Congressional Budget Office.

Note: Social Security and Medicare projections based on the intermediate assumptions of the 2006 Trustees' Reports. Medicaid projections based on CBO's January 2006 short-term Medicaid estimates and CBO's December 2005 long-term Medicaid projections under mid-range assumptions.

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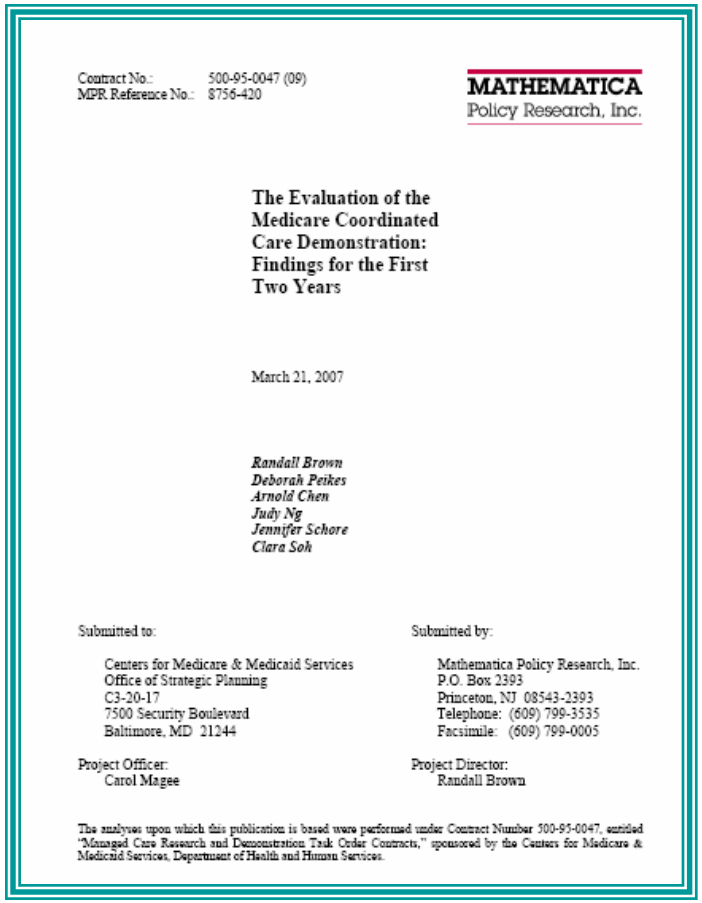
Medicare Coordinated Care Demonstrations



Contract No.: 500-95-0047 (09)
MPR Reference No.: 8756-420

MATHEMATICA
Policy Research, Inc.

The Evaluation of the Medicare Coordinated Care Demonstration: Findings for the First Two Years

March 21, 2007

Randall Brown
Deborah Peikes
Arnold Chen
Judy Ng
Jennifer Schore
Clara Soh

Submitted to:

Centers for Medicare & Medicaid Services
Office of Strategic Planning
C3-20-17
7500 Security Boulevard
Baltimore, MD 21244

Project Officer:
Carol Magee

Submitted by:

Mathematica Policy Research, Inc.
P.O. Box 2393
Princeton, NJ 08543-2393
Telephone: (609) 799-3535
Facsimile: (609) 799-0005

Project Director:
Randall Brown

The analyses upon which this publication is based were performed under Contract Number 500-95-0047, entitled "Managed Care Research and Demonstration Task Order Contracts," sponsored by the Centers for Medicare & Medicaid Services, Department of Health and Human Services.

- "The findings in brief indicate that patients and physicians were generally very satisfied with the program, but few programs had statistically detectable effects on patients. behavior or use of Medicare services."

- Treating only statistically significant treatment-control differences as evidence of program effects, the results show:
  - Few effects on beneficiaries overall satisfaction with care
  - An increase in the percentage of beneficiaries reporting they received health education
  - No clear effects on patients adherence or self-care
  - Favorable effects for only two programs each on: the quality of preventive care, the number of preventable hospitalizations, and patients well-being
  - A small but statistically significant reduction (about 2 percentage points) across all programs combined in the proportion of patients hospitalized during the year after enrollment
  - Reduced number of hospitalizations for only 1 of the 15 programs over the first 25 months of program operations

- No reduction in expenditures for Medicare Part A and B services for any program

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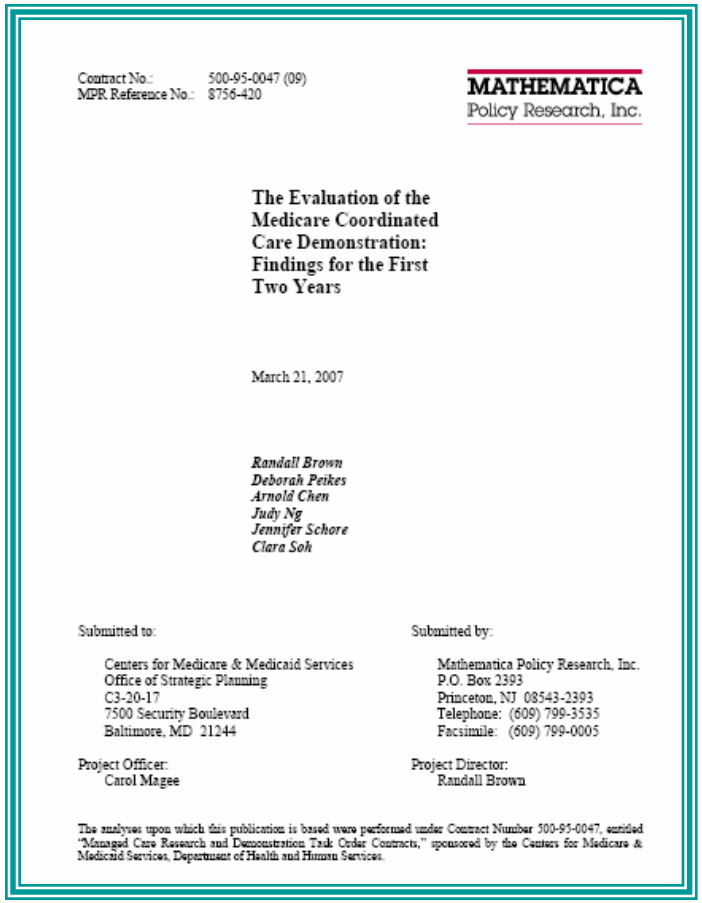
Medicare Coordinated Care Demonstrations



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- Many of the programs had unexpected difficulty enrolling the target number of patients...
- The programs that were most successful in enrolling patients were those that had a close relationship with physicians before the demonstration started and those with access to databases (such as clinic or hospital records) to identify potentially eligible patients.
- ... six of the programs are not cost neutral, four probably are not, and five may be cost neutral, over their first 25 months of operations.

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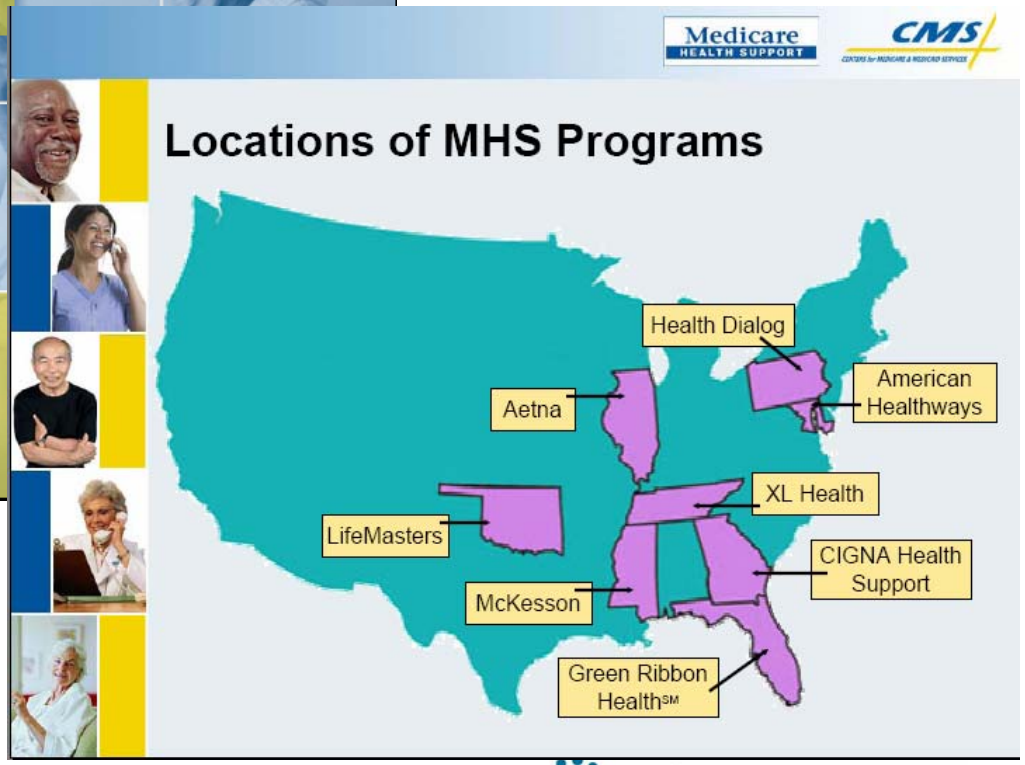
Medicare Health Support



Medicare HEALTH SUPPORT

CMS

National and Local Support for MHS

AARP The power to make it better.

American Diabetes Association. Cure • Care • Commitment®

American Heart Association. Learn and Live.

VNAA Visiting Nurse Associations of America®

Easter Seals DISABILITY SERVICES

Federation of American Hospitals

BlueCross BlueShield Association

NATIONAL HEALTH COUNCIL

NKF National Kidney Foundation® Making Lives Better

HEALTHCARE LEADERSHIP COUNCIL

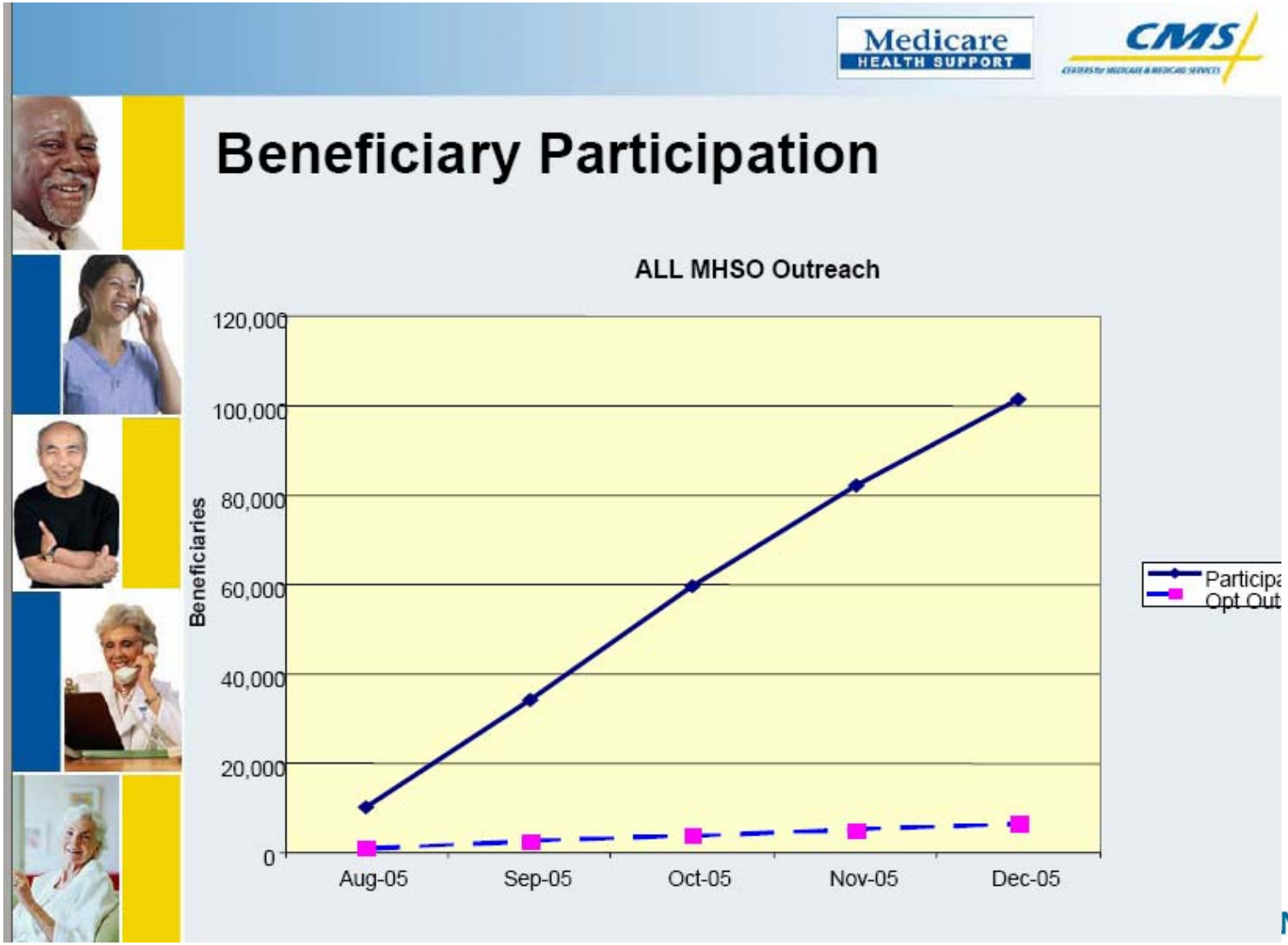
DMAA Disease Management Association of America

aahsa creating the future of aging services

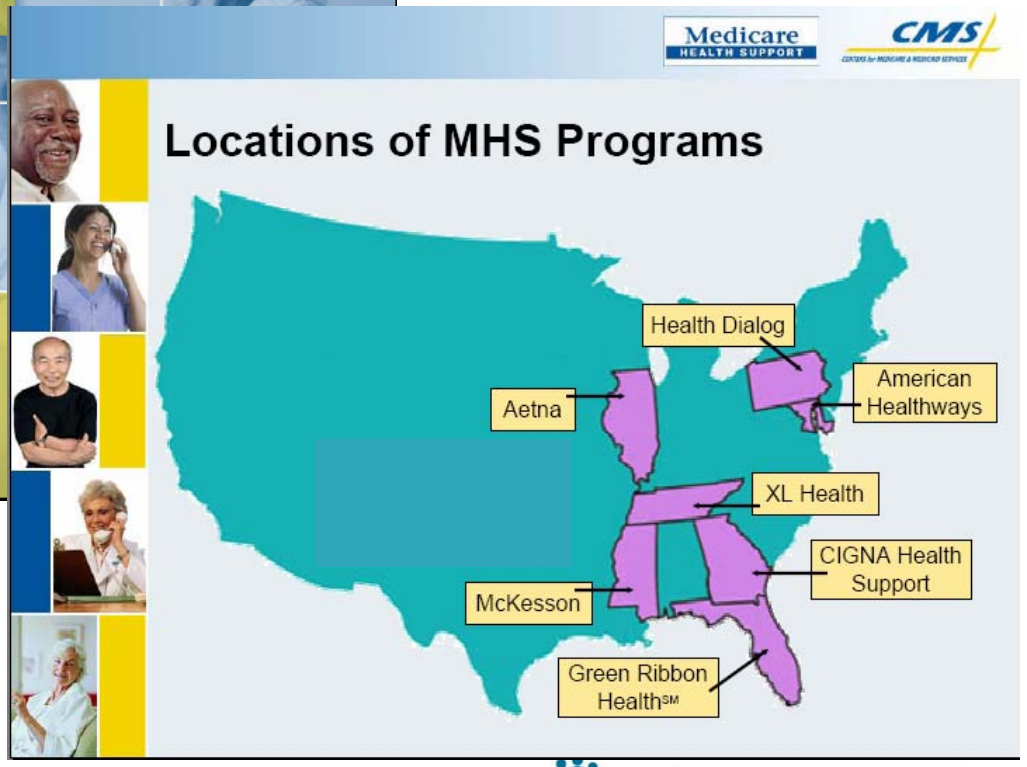
...And many more!

NCQA Measuring the Quality of America's Health Care

Hopeful...


Medicare
HEALTH SUPPORT
CMS
Beneficiary Participation
ALL MHSO Outreach
120,000
100,000
80,000
60,000
40,000
20,000
0
Beneficiaries
Aug-05
Sep-05
Oct-05
Nov-05
Dec-05
Participa
Opt Out

Medicare Health Support



Concerns of an interested MHS ‘outsider’:

Ideally, the final evaluation should reflect:

- That despite their historical high cost, the complex co-morbid Medicare beneficiary has major baseline care gaps and deficiencies
  - Recognition of widespread historical underuse of critical interventions – social and medical
  - Contributions of paradoxical overuse and misuse of many services
- Impact of isolation, health literacy, and frailty

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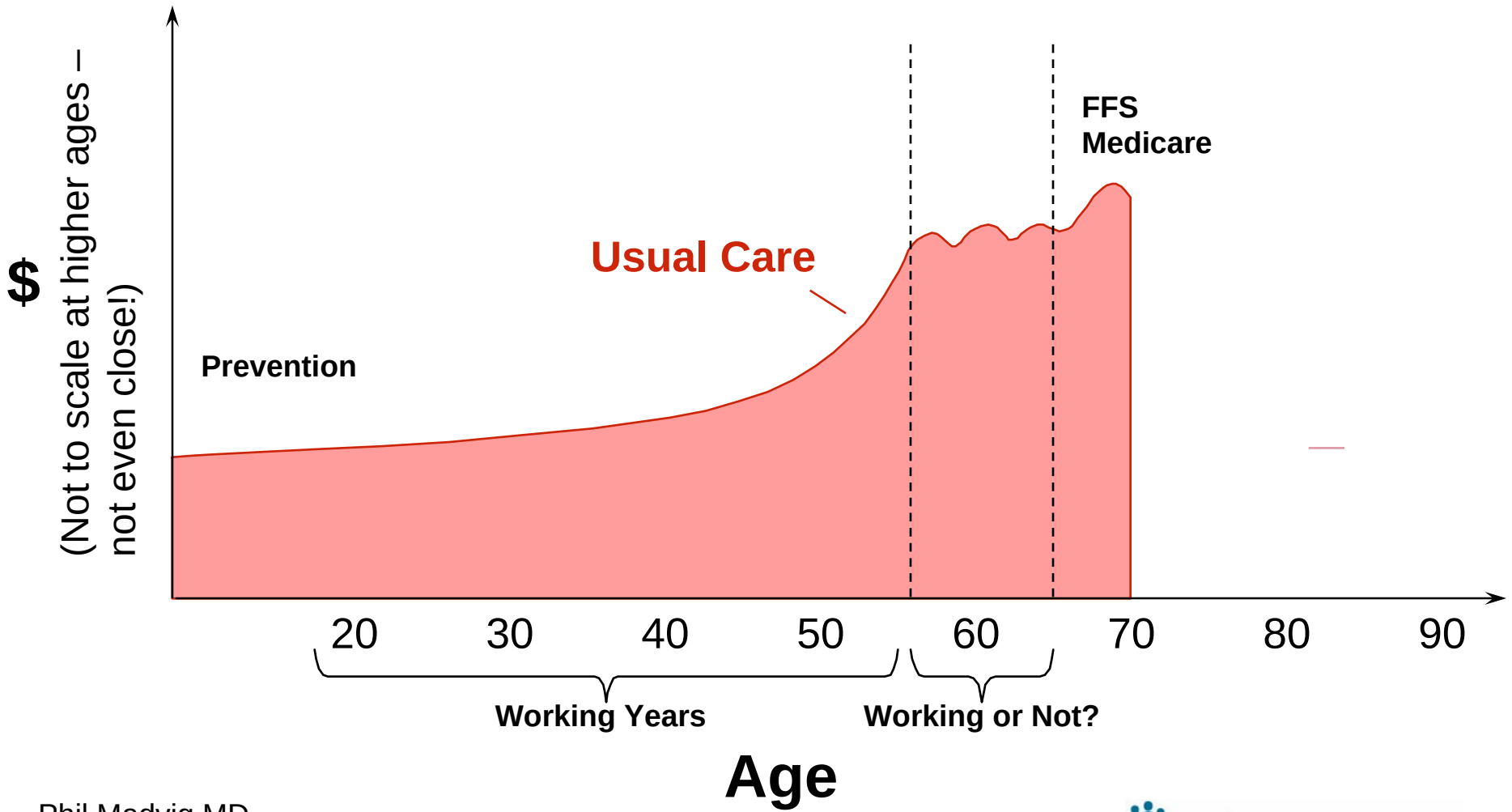
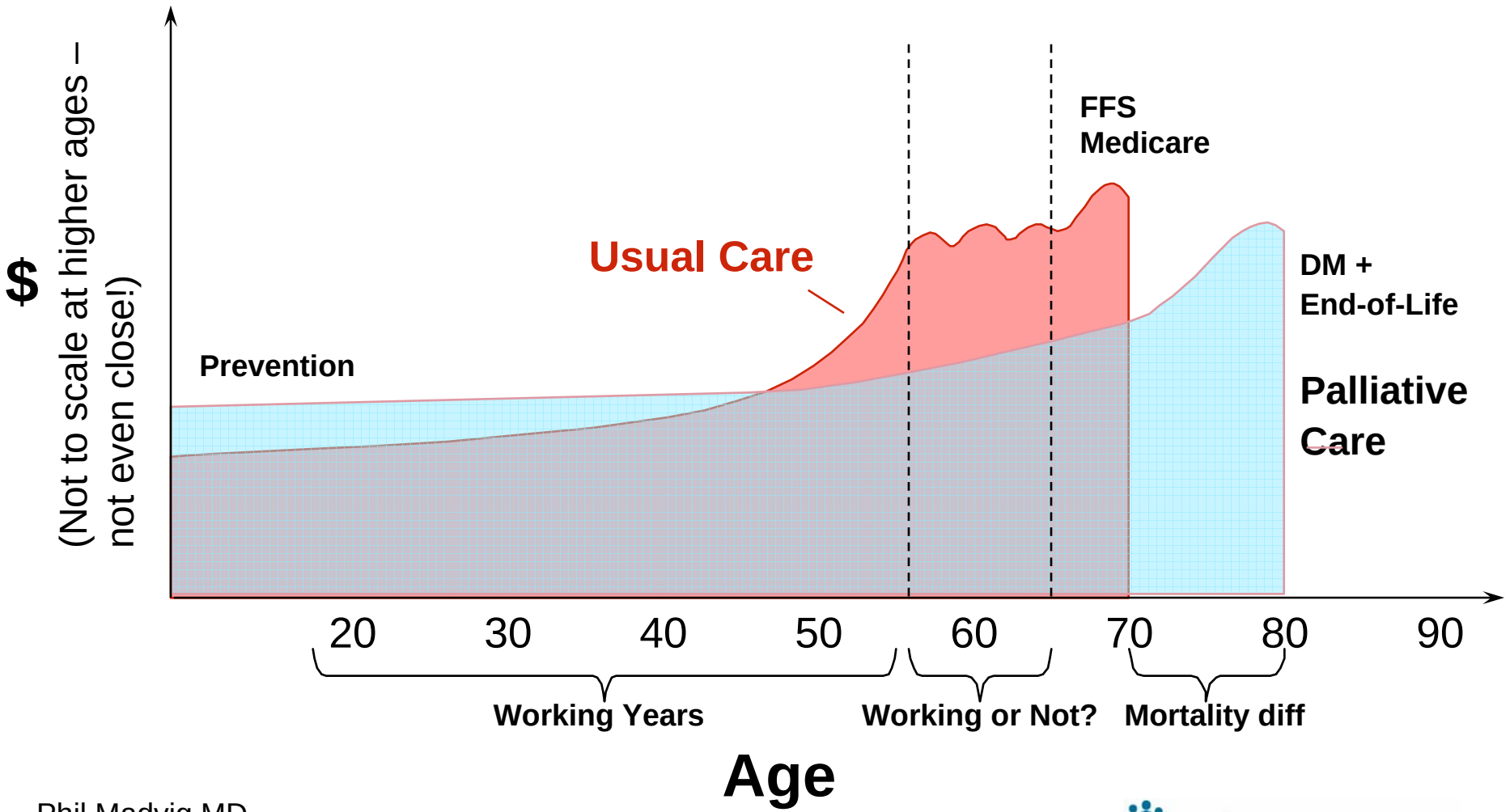
A key challenge



Phil Madvig MD
The Permanente Medical Group

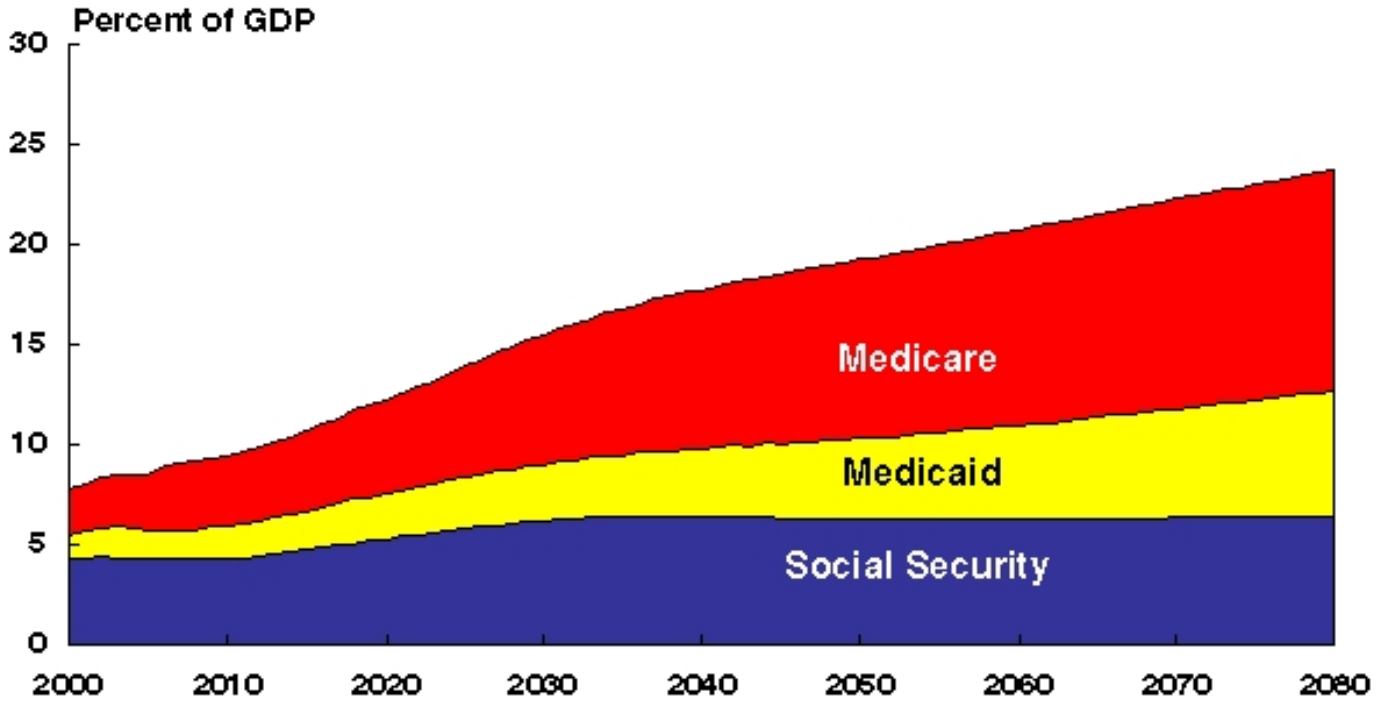
A key challenge: *Living to utilize...*



Phil Madvig MD
The Permanente Medical Group

The Other Government Program... Medicaid

Social Security, Medicare, and Medicaid Spending as a Percent of GDP



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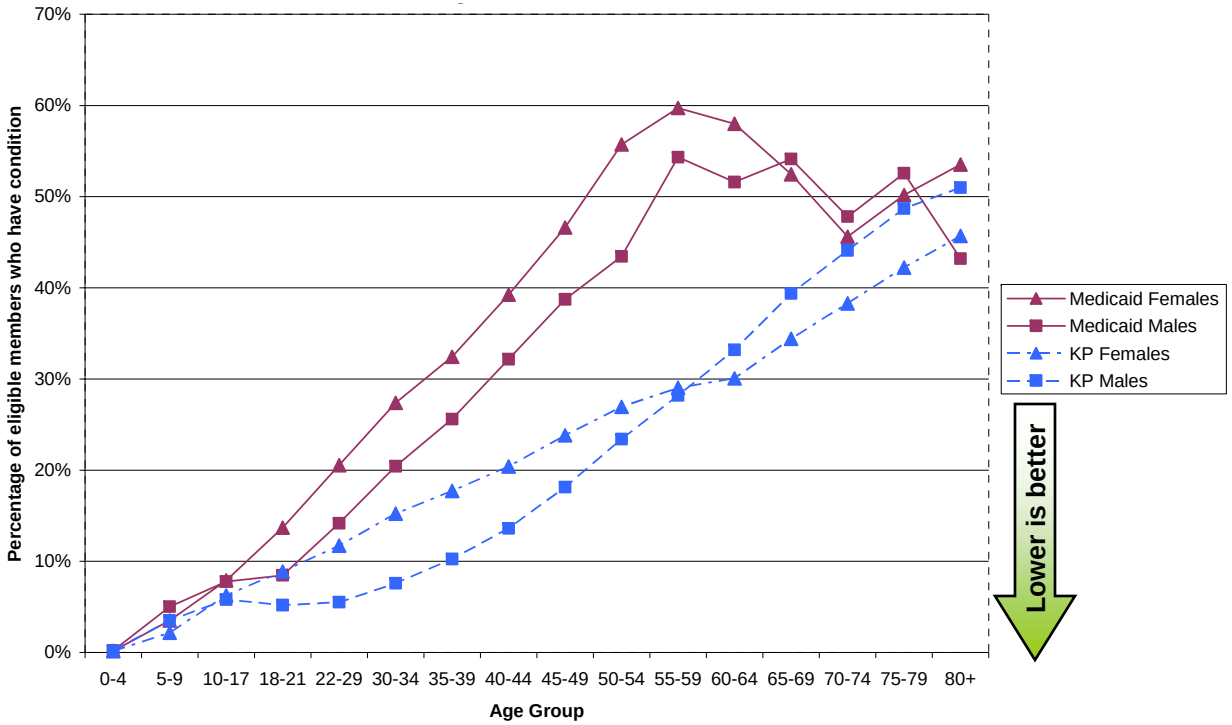
KP Medicaid members have high prevalence of chronic disease relative to other KP members

- Pattern holds over all ages, both male and female
  - ...except Medicare-aged members
- Pattern holds for all conditions
- Rate ratio = 1.7 for both males and females, all ages

One or More of Diabetes, Heart Failure CAD, Asthma and Depression



Analysis by Kathy Kearney, PhD and Jim Bellows, PhD

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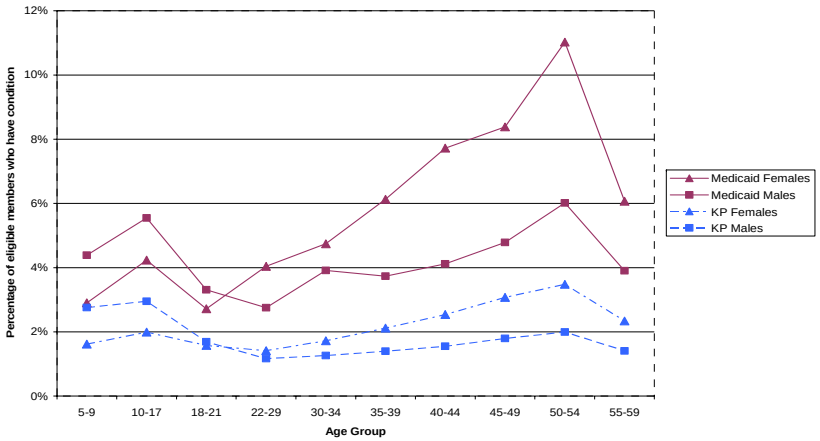
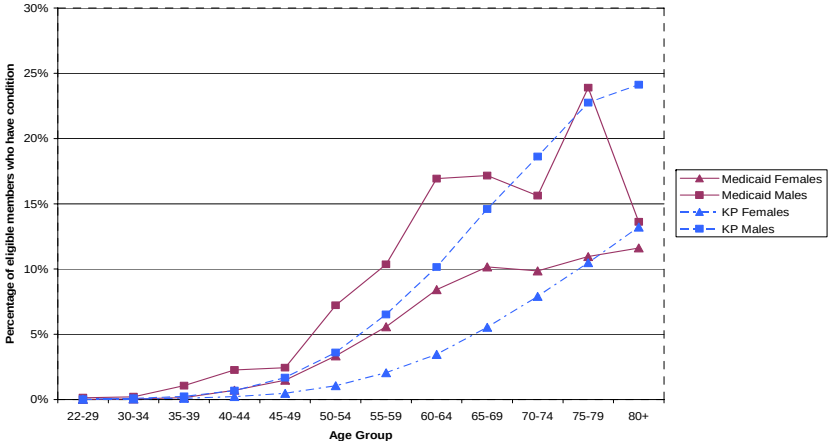
Case identification by age-sex – Asthma, Pain, CAD, and Heart Failure

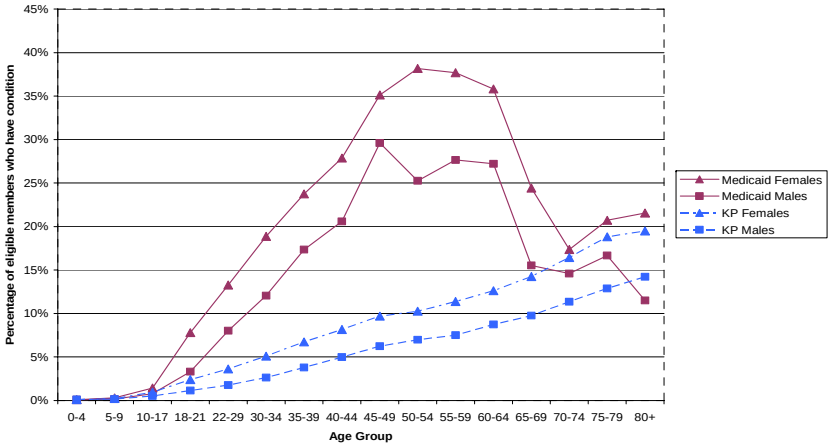
Asthma



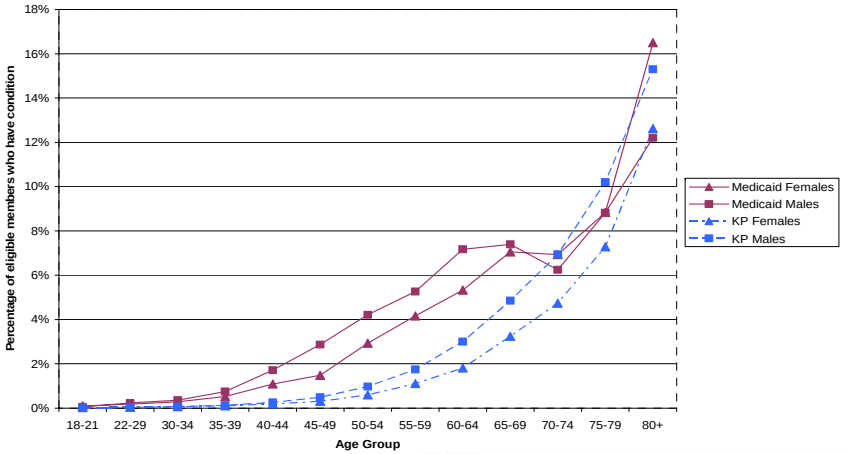
CAD



Chronic Pain



Heart Failure



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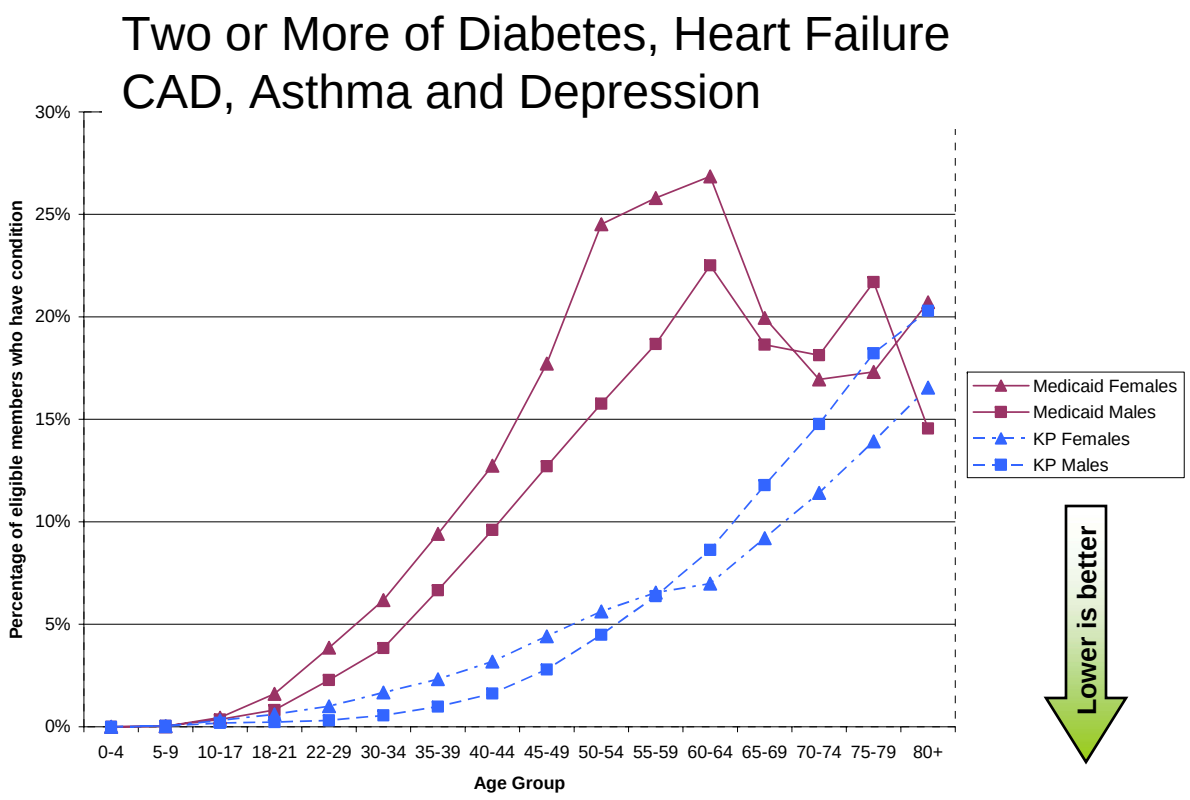
Medicaid members are also much more likely to have multiple conditions



Rate ratios (all ages)

Female	3.0
Male	2.5

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What about Docs and DM?

HEALTH CARE FINANCING REVIEW/Fall 2005/Volume 27, Number 1

Physician Involvement in Disease Management as Part of the CCM

Paul J. Wallace, M.D.

Phase I of the voluntary chronic care improvement (CCI-I) under traditional fee-for-service Medicare initiative seeks to extend the benefits of disease management to an elderly population with comorbid chronic medical conditions. Active, sustained involvement of treating physicians, a historical deficit of disease management programs, is a CCI-I program goal. During the last decade, Kaiser Permanente, an integrated health care delivery system with more than 60 years of experience in managing the care of individuals and populations, has applied the chronic care model (CCM) to develop care management strategies for populations of patients with chronic medical conditions. Physician leadership and involvement have been key to successfully incorporating these practices into care. The scope of physician involvement in leading, developing, and delivering chronic illness care management at Kaiser Permanente is described as a basis for identifying opportunities to involve practicing physicians in the CCI-I.

service Medicare seeks to address gaps in their care by introducing disease and care management practices.

Mounting evidence points to disease management's effectiveness at improving care across populations and disease states (Ofman et al., 2004). At Kaiser Permanente, where internal disease management activities accelerated more than a decade ago, the impact of population-based approaches has been similar. For example, performance measures for the 500,000 Kaiser Permanente members with diabetes reveal substantial improvements in care processes and intermediate outcomes (Figure 1).

Early internal disease management efforts at Kaiser Permanente were organized and developed by disease states, similar to programs offered by external disease management companies. The condition-centric view of disease management persists as a theme in parts of the disease management industry; the National Committee for Quality Assur-ance (NCQA) (2005) Disease Management Accreditation and

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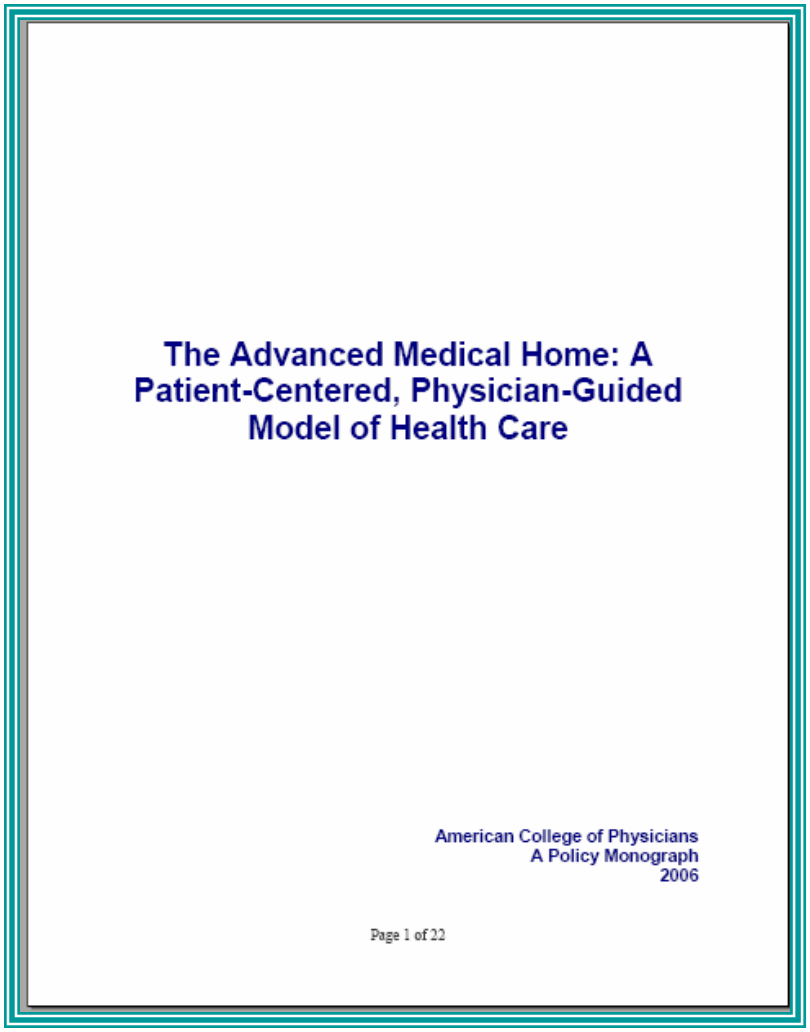
Competition or Opportunity...


The Advanced Medical Home: A Patient-Centered, Physician-Guided Model of Health Care

American College of Physicians
A Policy Monograph
2006

Page 1 of 22

- Position 1. ... *Link patients to a personal physician in a practice that qualifies as an advanced medical home.*
- Position 2. Fundamental changes ... in third party financing, reimbursement, coding, and coverage policies ...
- Position 3. ... assure an adequate supply of physicians who are trained to deliver care consistent with the advanced medical home model ...
- Position 4. Further research on the advanced medical home model and a revised reimbursement system ...

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Lessons in Home Building from the past...

First Iteration...

Customizing the Medical Home for Population Care:

- **Decision Support**
- **Practice Models**
- **Health IT**

Who has this intellectual property?

The Evidence Base for Managing Co-morbidities

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Is “more care better” for the patient with Co-morbidities?

The NEW ENGLAND JOURNAL of MEDICINE

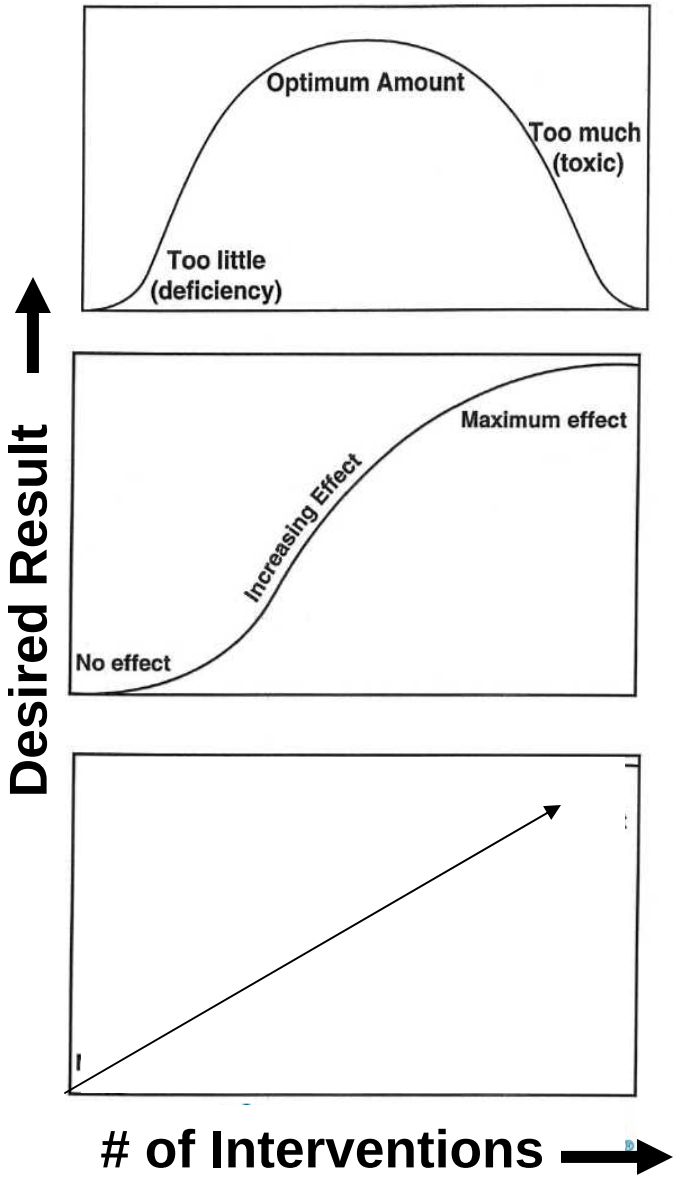
SOUNDING BOARD

Potential Pitfalls of Disease-Specific Guidelines for Patients with Multiple Conditions

Mary E. Tinetti, M.D., Sidney T. Bogardus, Jr., M.D., and Joseph V. Agostini, M.D.

Quality-assurance initiatives encourage adherence to evidenced-based guidelines for the management of particular diseases and ensure that such adherence is monitored.[1-3] The best of these guidelines, developed by national organizations, systematically collect the available evidence regarding a given disease and provide recommendations, including the use of multidrug regimens, for the treatment of patients with that disease.[4-8] The goal is to maximize patient to take an aspirin, an ACE inhibitor, a beta-blocker, a bisphosphonate, calcium, a diuretic, a selective serotonin-reuptake inhibitor, a statin, a sulfonylurea drug, perhaps a thiazolidinedione, and vitamin D.[4-8] These guideline-driven medications are taken in addition to prescription and over-the-counter drugs for conditions such as allergies, pain, dyspepsia, and insomnia. Viewing disease-specific medication guidelines from this perspective raises

N Engl J Med 351;27 2870-2874 December 30, 2004



What is the “dose response” for relating the number of things you do to achieving clinical outcomes?

Hypothesis:

As conditions co-occur, management isn't necessarily the direct sum of management of the parts

- A Possible Approach...
  - identify key patterns of co-morbidity
  - create a "meta-GL" for each pattern addressing prioritization across the many things that could be done to the select the few (? < 5) that definitely should be done
    - interventions also needs to broaden to include especially EOL/palliative care screening and referral as well as other SES interventions
  - rethink measurement to more like a batting average across patients (e.g. at bats) for what proportion of highest priority interventions were delivered (also - no penalty for not doing a HbA1c if not in the top 5...)

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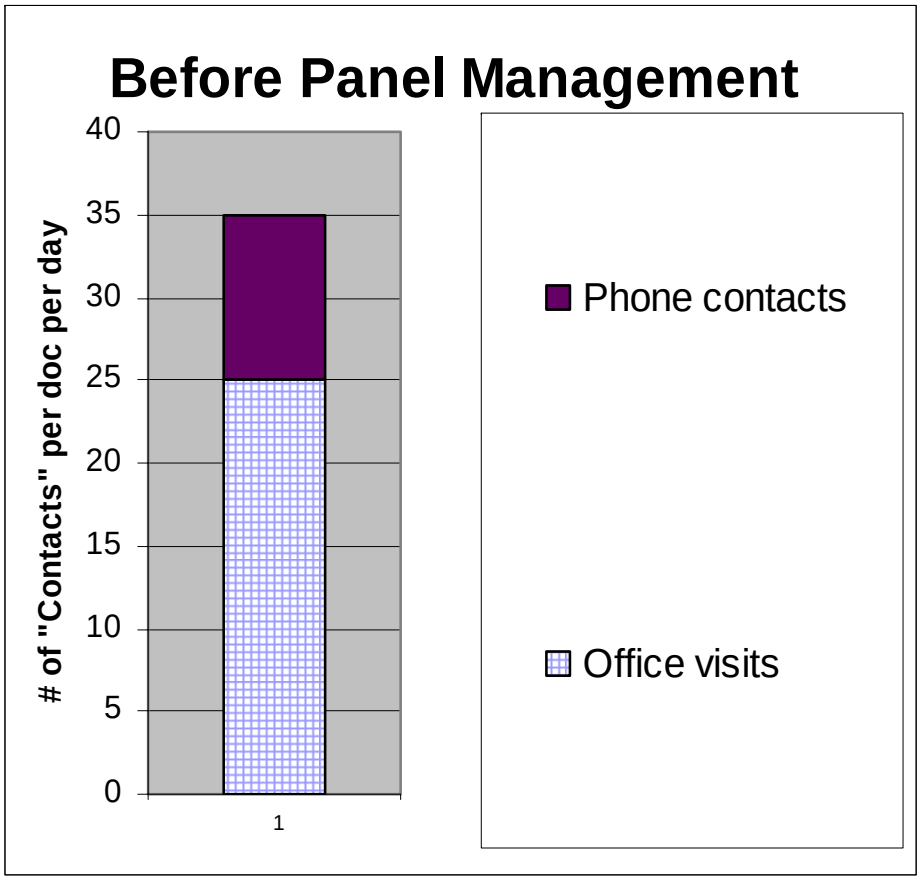
Primary Care Physicians and How They "Manage" Their Patient Panel



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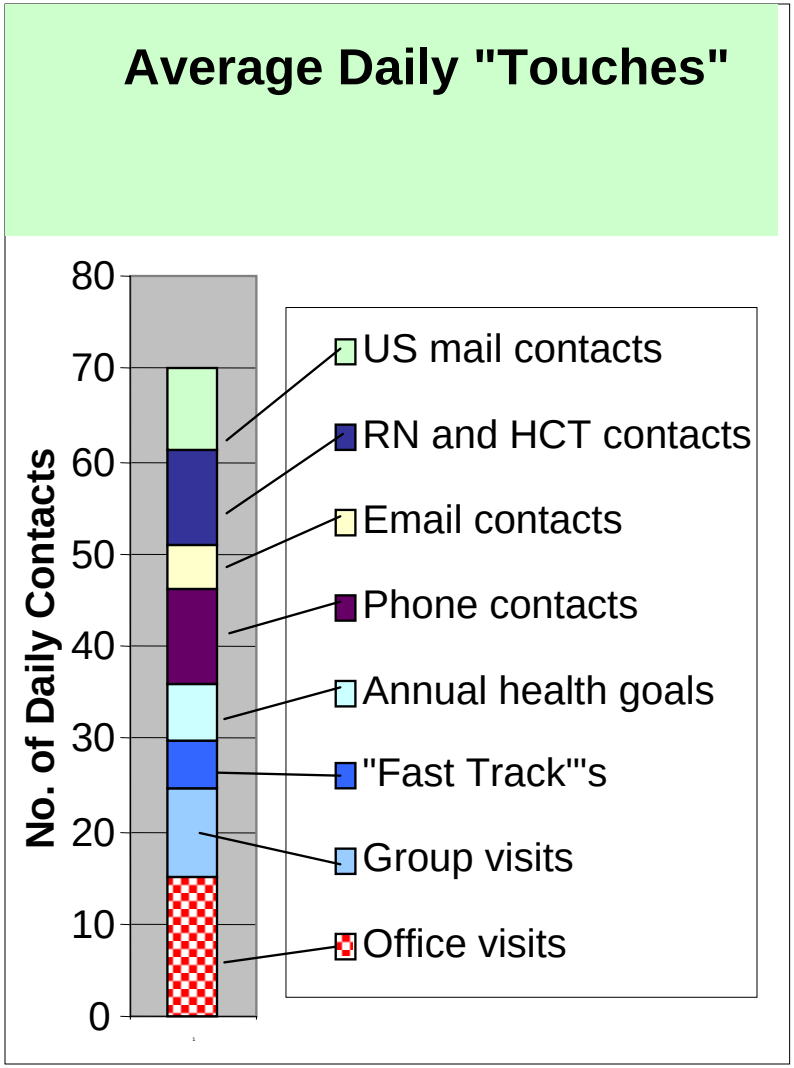
Diversified Access: Time and “Touches”



Dr G. Livaudais, Maui Lani Clinic, Hawaii,
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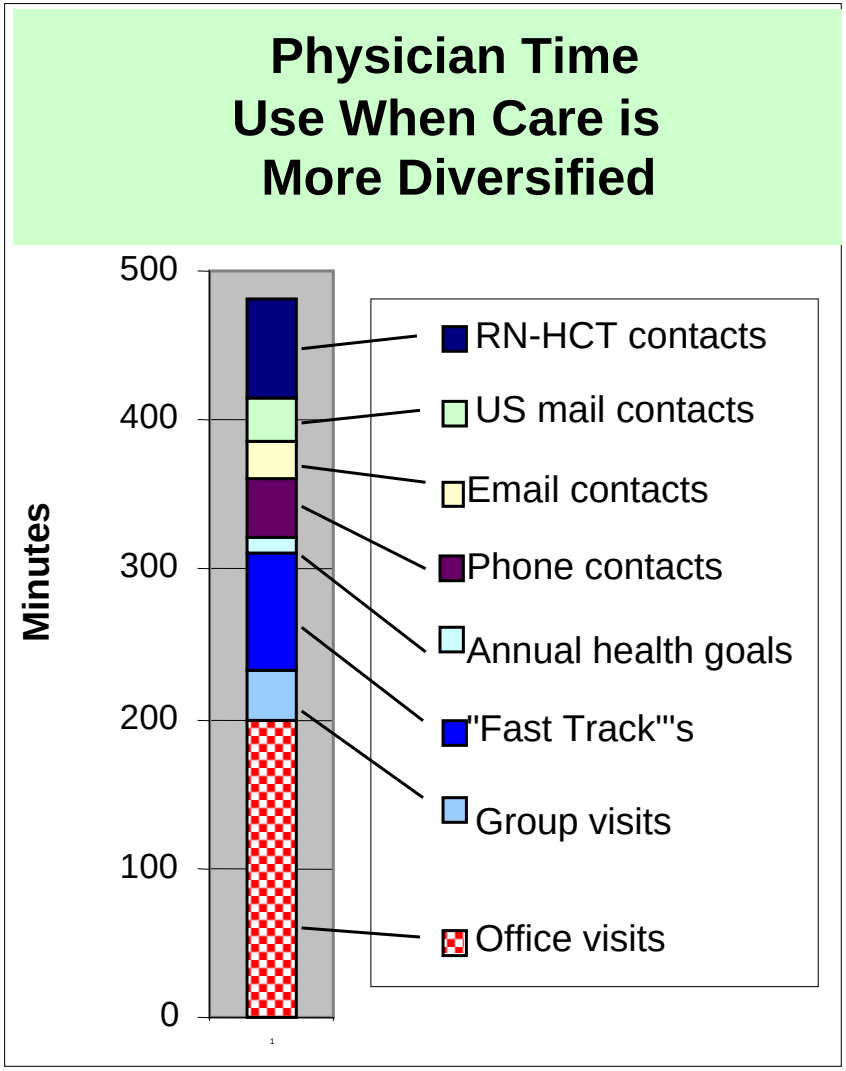

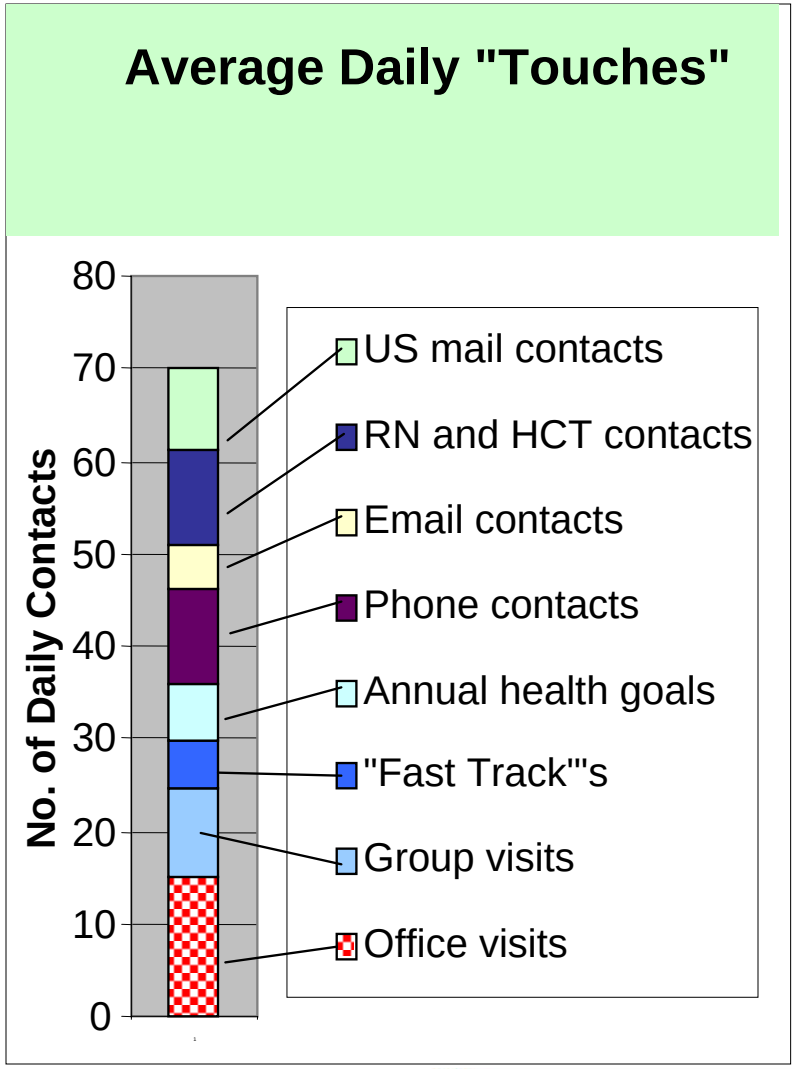

Dr G. Livaudais, Maui Lani Clinic, Hawaii,
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Demo Site

preferences | getting started | updates | FAQs | user guide | glossary | contact us | logout

The Panel Support Tool

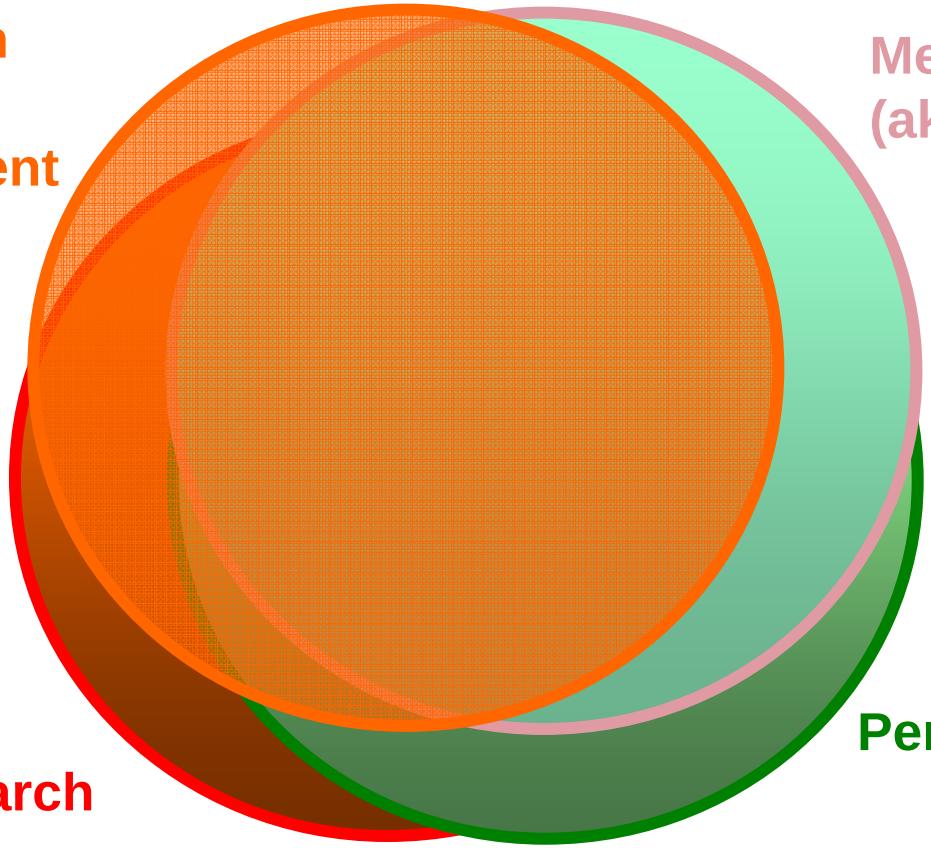
choose a provider | specialty | search / panel view | disease | risk factor | visit info | panel vitals

Complete Panel View

PCP: DEMO DOC Panel Size : 1107 Y Indicates in the registry F/U

Report	MRN	NAME	Age	Sex	Dx	Prev	Gap	DM	CVD	CHF	HTN	CKD	Last Seen	Rev'd
☐	000000161	DEMO161	76	F			20	Y				Y		
☐	000000564	DEMO564	51	F			16	Y			Y	Y	12/16/2004	
☐	000000951	DEMO951	42	M			15	Y						
☐	000000931	DEMO931	48	F			13	Y			Y			
☐	000000473	DEMO473	80	F	R		12	Y			Y	Y	9/3/2005	
☐	000001098	DEMO1098	41	F			12	Y			Y		1/7/2006	
☐	000000905	DEMO905	73	M	R		11	Y	Y		Y		3/20/2006	
☐	000000256	DEMO256	54	M			11	Y			Y		12/13/2005	
☐	000000226	DEMO226	50	F			11	Y					12/28/2005	
☐	000000714	DEMO714	39	M			10	Y			Y	Y	10/24/2005	
☐	000000362	DEMO362	29	F			10			Y			11/21/2005	
☐	000000360	DEMO360	78	M			8		Y		Y	Y	4/5/2006	
☐	000000491	DEMO491	62	F			8	Y	Y	Y	Y	Y	5/22/2006	
☐	000000218	DEMO218	57	M			8		Y		Y		2/5/2005	
☐	000000829	DEMO829	45	M			8	Y			Y	Y	4/30/2005	
☐	000000098	DEMO98	42	M			8	Y					10/5/2005	
☐	000000464	DEMO464	74	F			7		Y			Y	8/14/2006	

Health IT…Encompassing multiple needs



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IT Tools for Chronic Disease Management: How Do They Measure Up?

July 2006

http://www.chcf.org/topics/chronicdisease/index.cfm?itemID=123057

- Chronic Disease Management Systems (CDMS) were more effective at supporting Chronic Disease Management than Commercial EMRs
- On a per-MD basis, CDMS required less investment of time, money and effort
- CDMSs were significantly less expensive than EMRs

Opportunity...

- Who will be the *application service provider* (ASP) for population care services to the Medical Home?

- Who will be the *knowledge service provider* (? KSP) for population care services to the Medical Home?

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Critical Questions in the Pursuit of Optimism...

- *Can DM help evolve the value proposition for health to involve more than direct medical costs and returns?*
  - A work in progress
- *Can DM succeed with government programs?*
  - Yes- it has to...
- *How does DM relate to "The Advanced Medical Home" movement?*
  - DM, probably more than anyone, already has the evidence base to better inform the management of complex co-morbid patients
  - Will DM fill the role of ASP (and "KSP" – Knowledge Service Provider") for chronic care practice? You decide!

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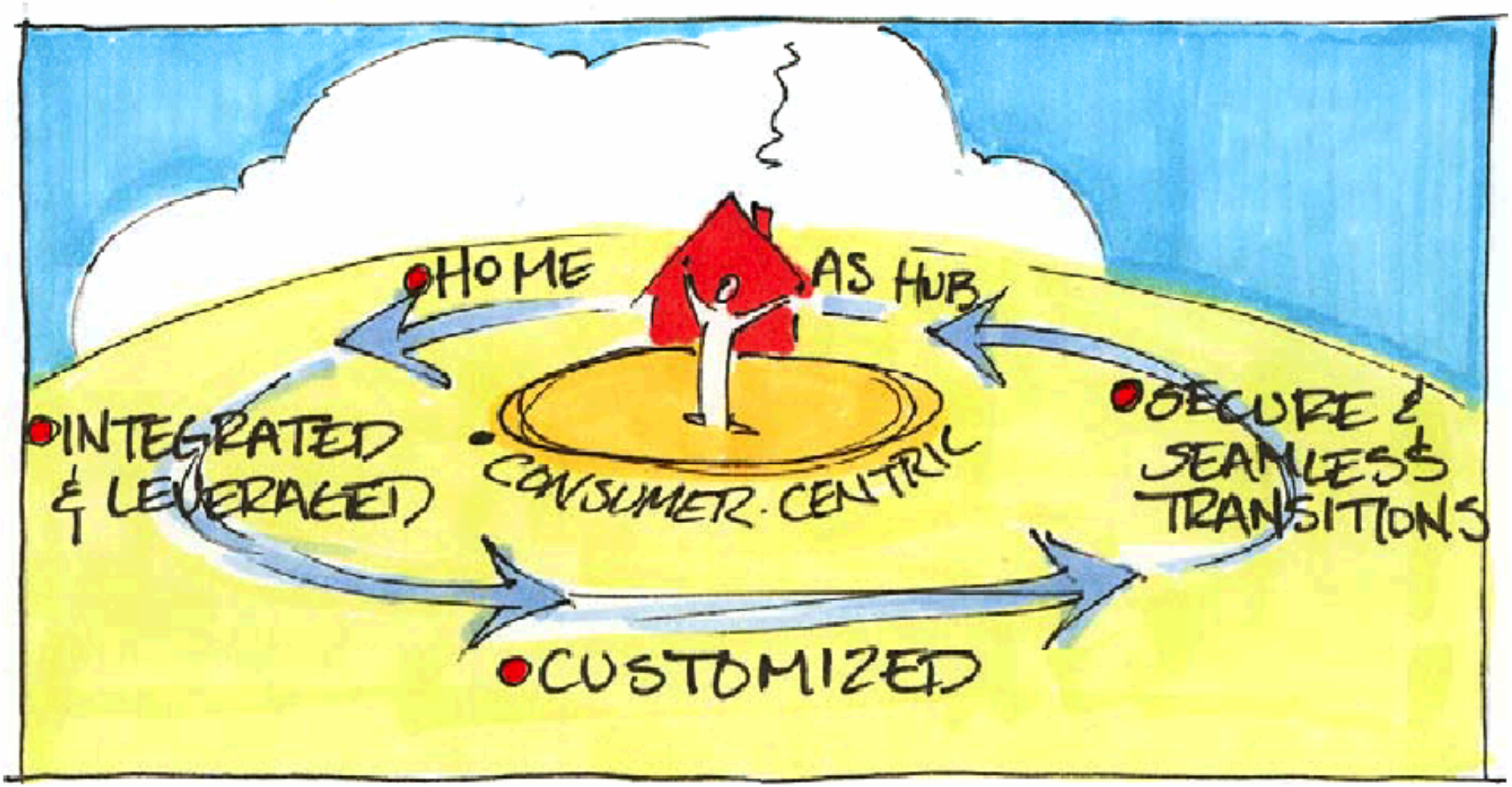
Hope and Optimism Ultimately Aligned...
The Patient at the Center of Care



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