Is There Long-Term Value in Disease Management Programs?

Reflections on the 2004 CBO Report

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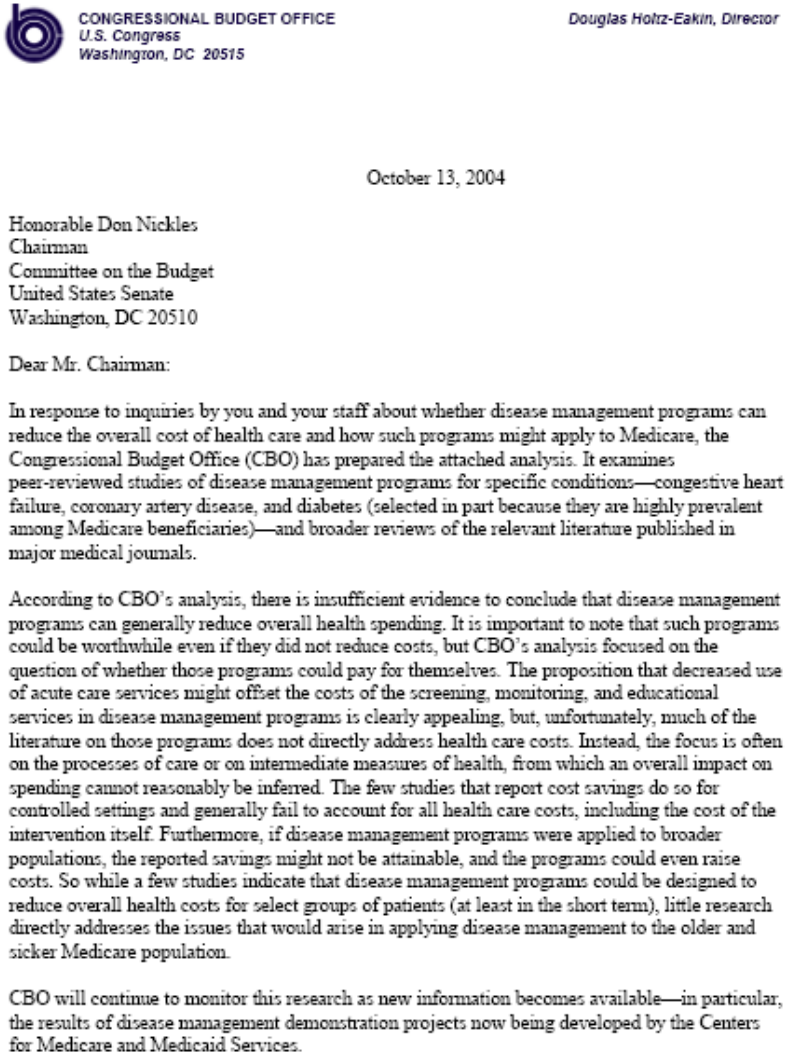


CONGRESSIONAL BUDGET OFFICE
U.S. Congress
Washington, DC 20515

Douglas Holtz-Eakin, Director

October 13, 2004

Honorable Don Nickles
Chairman
Committee on the Budget
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

In response to inquiries by you and your staff about whether disease management programs can reduce the overall cost of health care and how such programs might apply to Medicare, the Congressional Budget Office (CBO) has prepared the attached analysis. It examines peer-reviewed studies of disease management programs for specific conditions—congestive heart failure, coronary artery disease, and diabetes (selected in part because they are highly prevalent among Medicare beneficiaries)—and broader reviews of the relevant literature published in major medical journals.

According to CBO's analysis, there is insufficient evidence to conclude that disease management programs can generally reduce overall health spending. It is important to note that such programs could be worthwhile even if they did not reduce costs, but CBO's analysis focused on the question of whether those programs could pay for themselves. The proposition that decreased use of acute care services might offset the costs of the screening, monitoring, and educational services in disease management programs is clearly appealing, but, unfortunately, much of the literature on those programs does not directly address health care costs. Instead, the focus is often on the processes of care or on intermediate measures of health, from which an overall impact on spending cannot reasonably be inferred. The few studies that report cost savings do so for controlled settings and generally fail to account for all health care costs, including the cost of the intervention itself. Furthermore, if disease management programs were applied to broader populations, the reported savings might not be attainable, and the programs could even raise costs. So while a few studies indicate that disease management programs could be designed to reduce overall health costs for select groups of patients (at least in the short term), little research directly addresses the issues that would arise in applying disease management to the older and sicker Medicare population.

CBO will continue to monitor this research as new information becomes available—in particular, the results of disease management demonstration projects now being developed by the Centers for Medicare and Medicaid Services.

"According to CBO's analysis, there is insufficient evidence to conclude that disease management programs can generally reduce overall health spending. It is important to note that such programs could be worthwhile even if they did not reduce costs, but CBO's analysis focused on the question of whether those programs could pay for themselves."

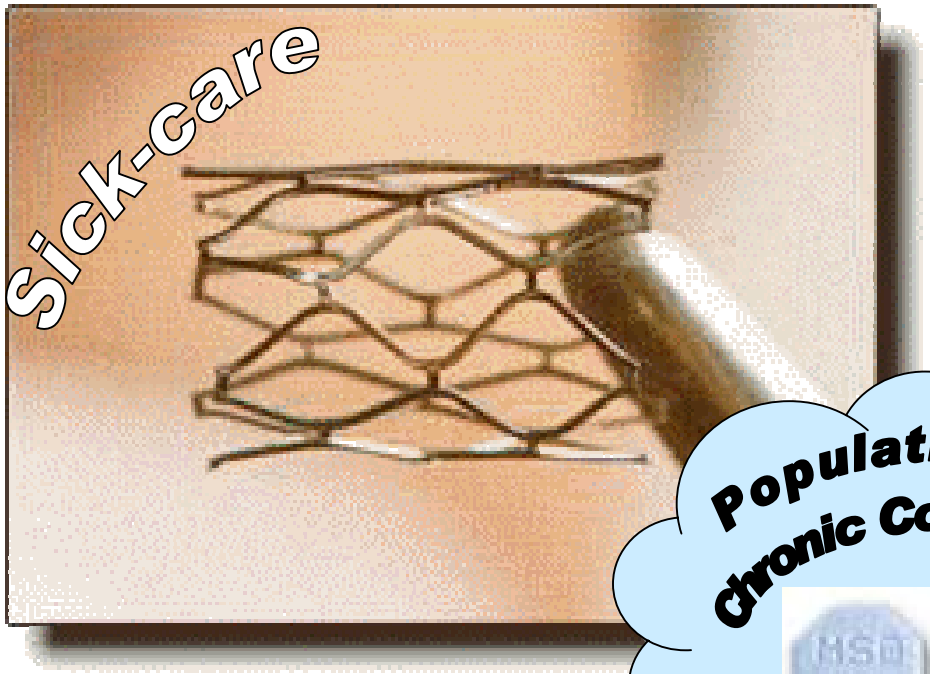
Concerns

- "Technical issues"
  - Search currency, exclusions and inclusions
  - Relevance to Disease Management as delivered in 2004
- The problem formulation
  - "… whether disease management programs can reduce the overall cost of health care…? "
- Relationship of costs to value…

Presentation Outline

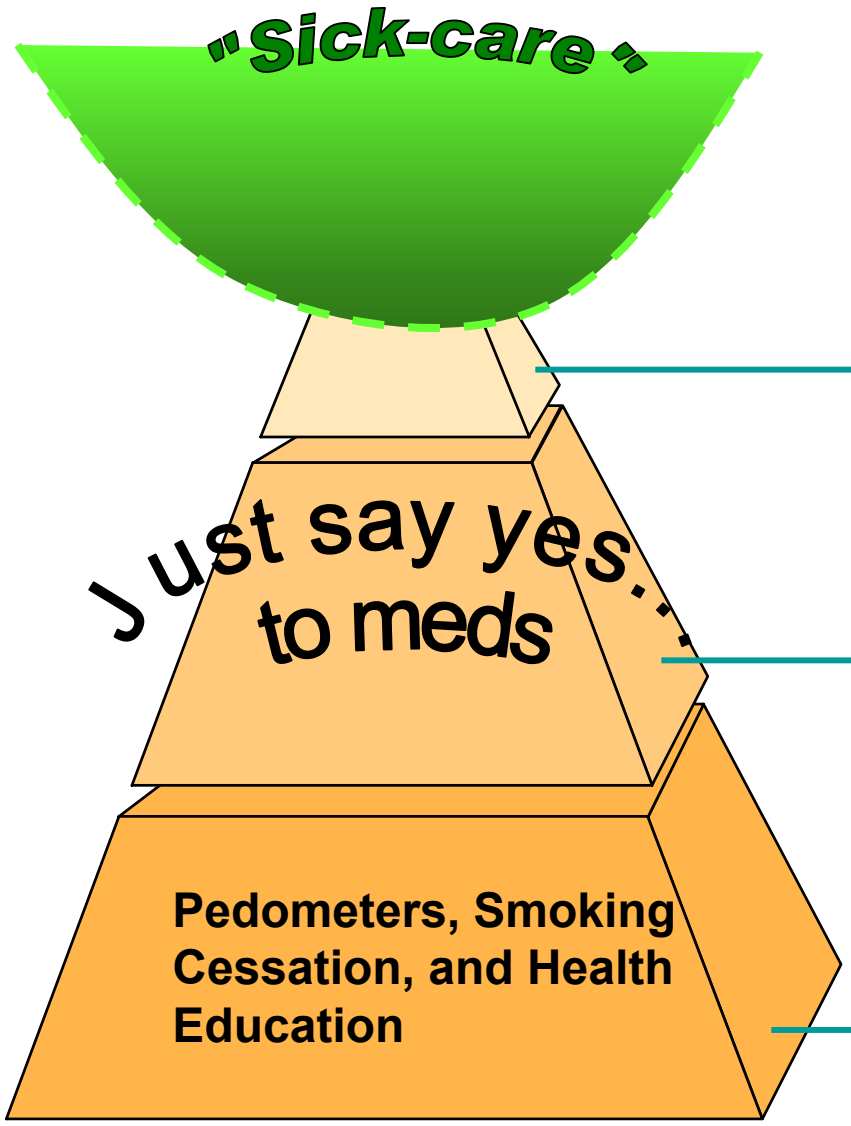
- Context: Caring for entire populations
- DM value model
- Stakeholder perspectives on value
- Value measurement
- Solving the value equation
- Value framing
- Return on Investment – An alternative view
- What about the next CBO report?

Healthcare's "Middle Space"…



Population Based Chronic Condition Care

Population-based care: Managing the whole population



Intensive Management

Leverage available resources to optimize health status and coordination of care

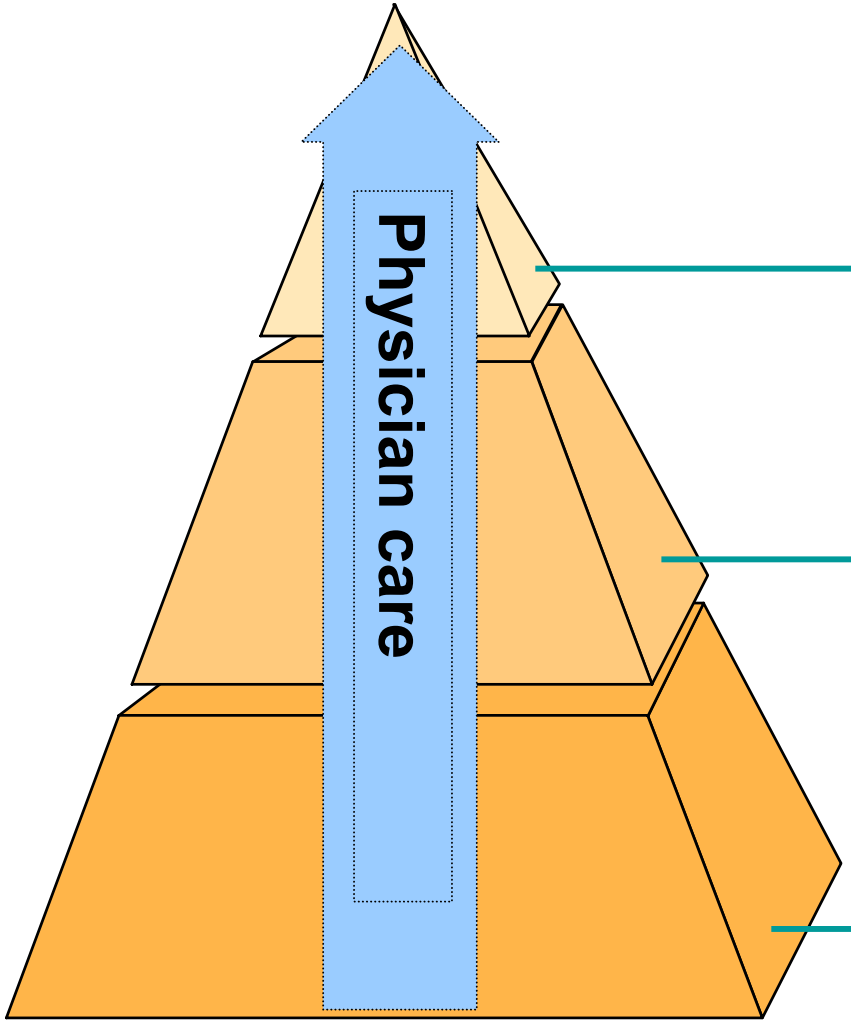
Care Management

Enhance self-care skills; provide clinical management using care paths and protocols

Self-care Support

Routine care with decision support technology and programs to assist members in developing/ improving self-care skills

Population-based care: Managing the whole population



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What is "Value"?

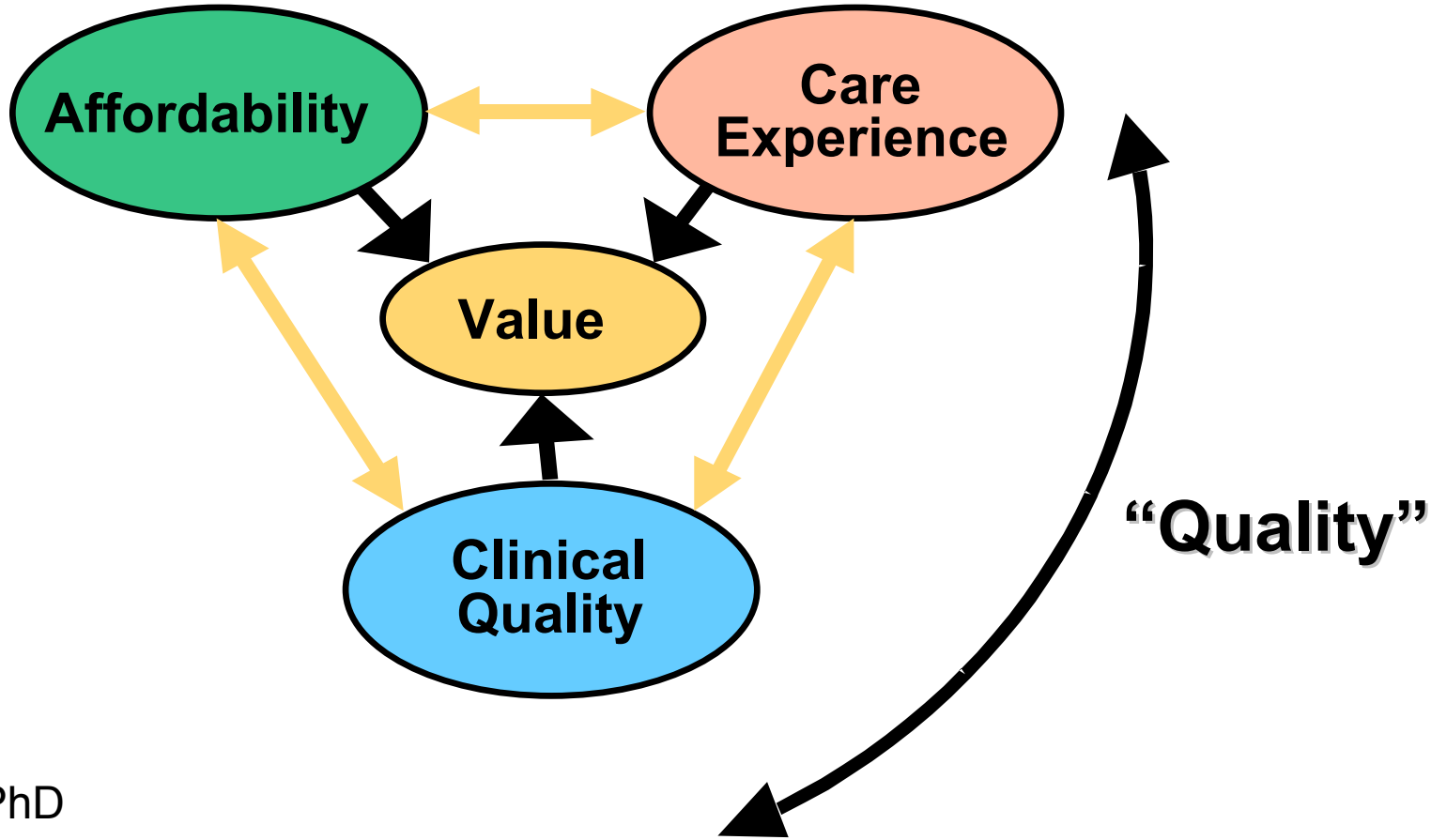
Value: *Worth, utility, or importance in comparison with something else*

—*Webster's Dictionary*

Characteristics of Value

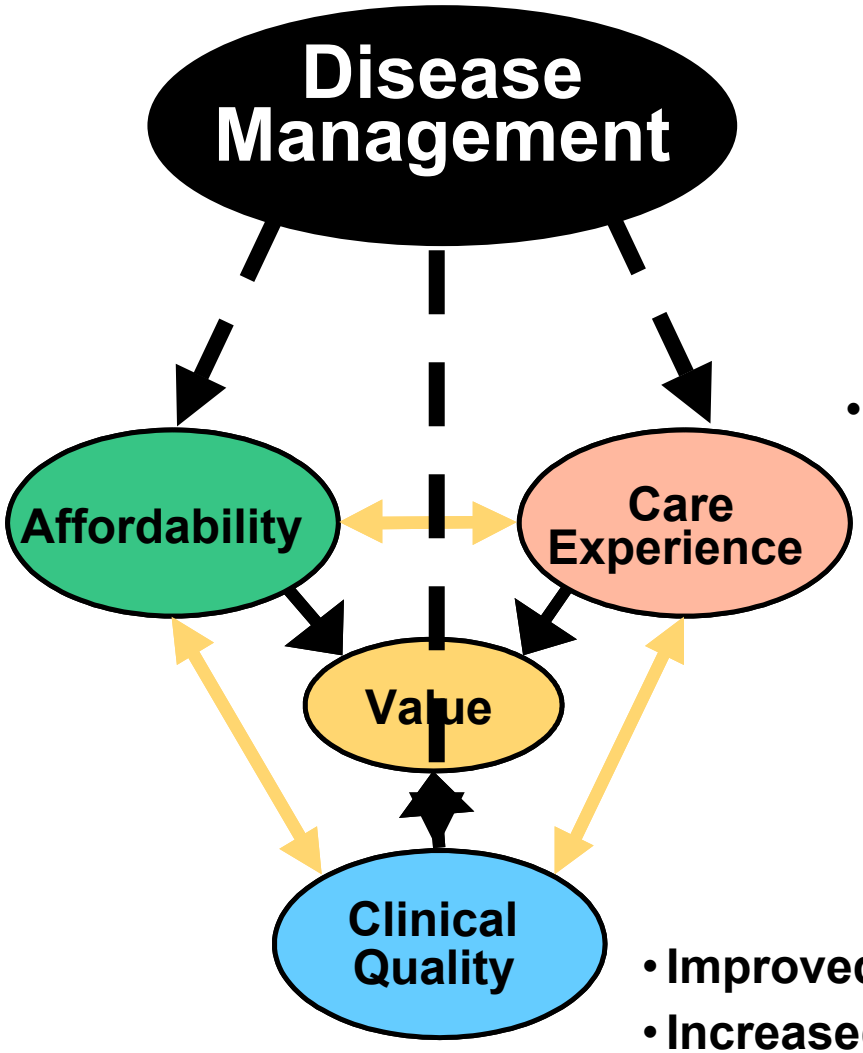
- Value is relative
- Value is subjective — Each stakeholder is unique
- Valuing something is more than finding it desirable
  - What would be given up in exchange?
  - Ultimate test of value is choice (People "vote with their feet")
  - For market goods, value is indicated by the amount of money a person would pay

Value Model



Thanks to:
Matt Stiefel
Jim Bellows PhD

DM Impact on Value



- Efficiency improvements
- Direct costs of DM
- Membership growth
- Reduced utilization

- Increased patient involvement

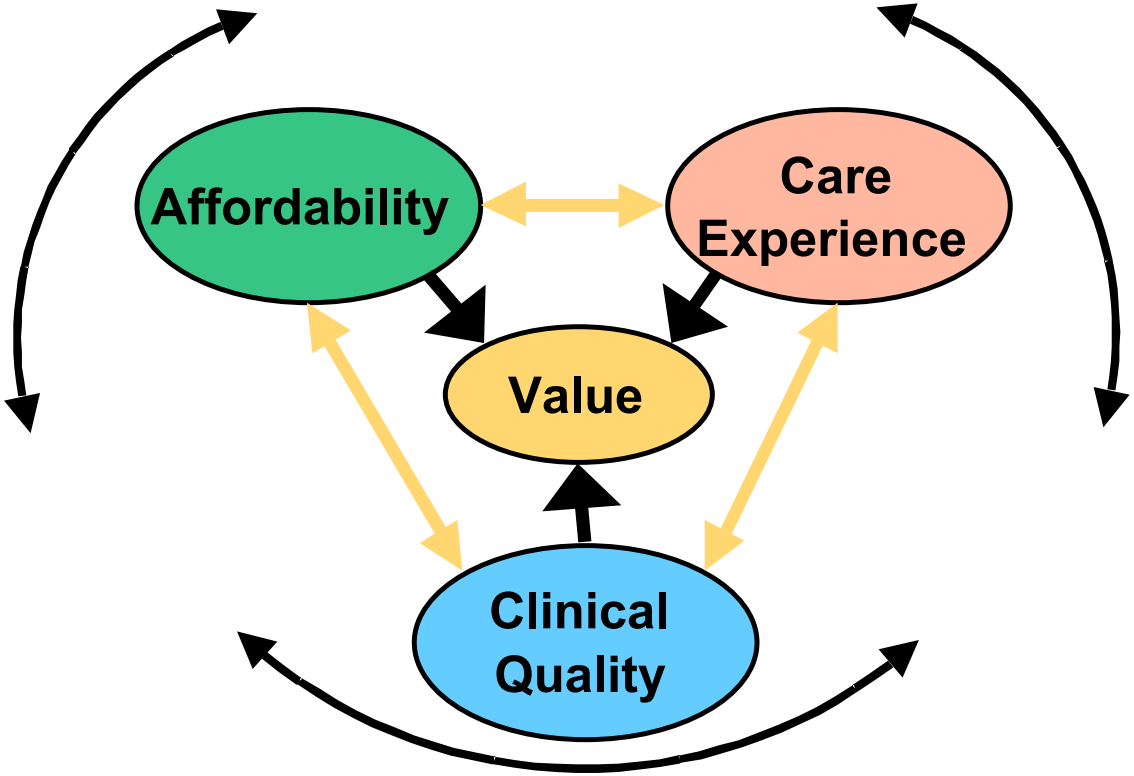
- Improved quality of care
- Increased patient involvement

Who are the Stakeholders for DM?

Consumers (members, "pre-" members)	■ Ultimate customers ■ Trend — increasing "skin in the game"
Purchasers	■ Paying most of the freight (for now) ■ Ability to steer consumers toward particular health plans/DM programs (highest-value plans?)
Clinicians	■ DM programs can influence clinical care ■ Integration of DM program with their practice highly variable
(Health Plan Management)	■ Invests $$ in DM programs that could otherwise go into other services… how much to invest? ■ Values reflect both customers' values and organizational constraints

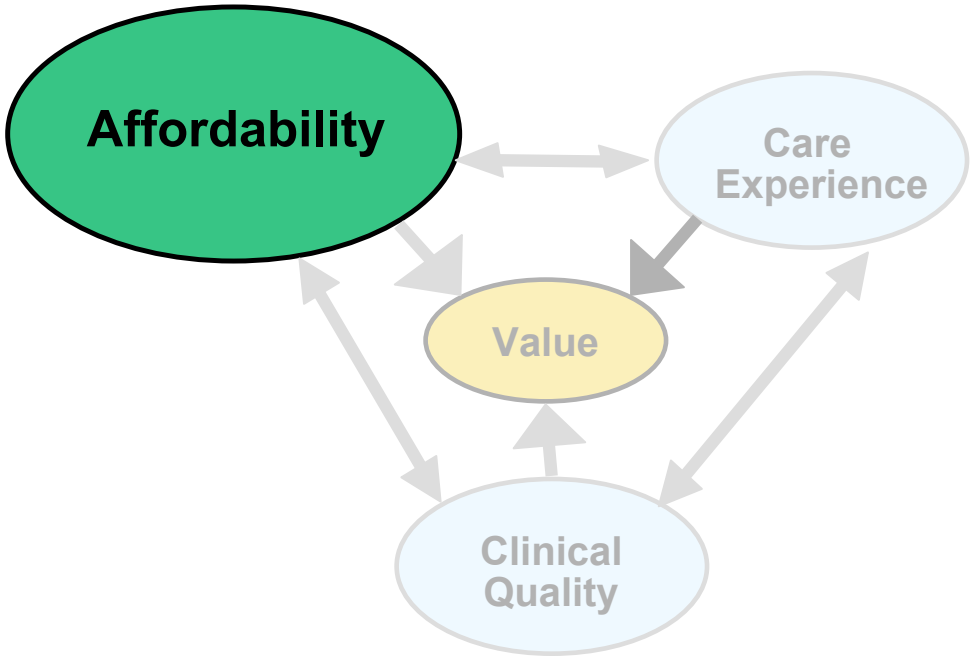
Purchaser Perspective

Consumer Perspective

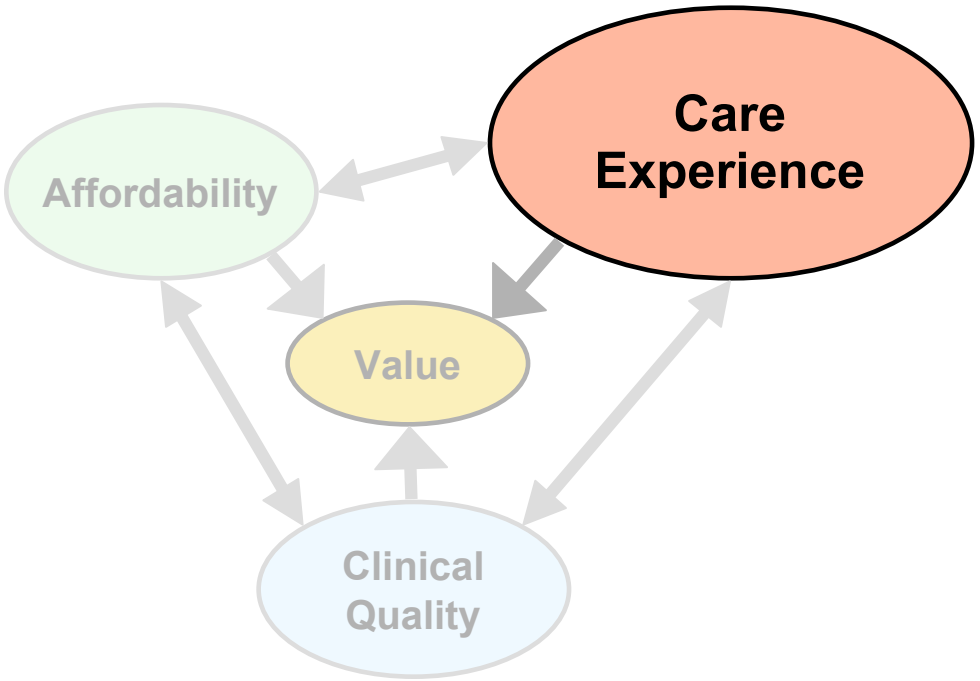


Clinician Perspective

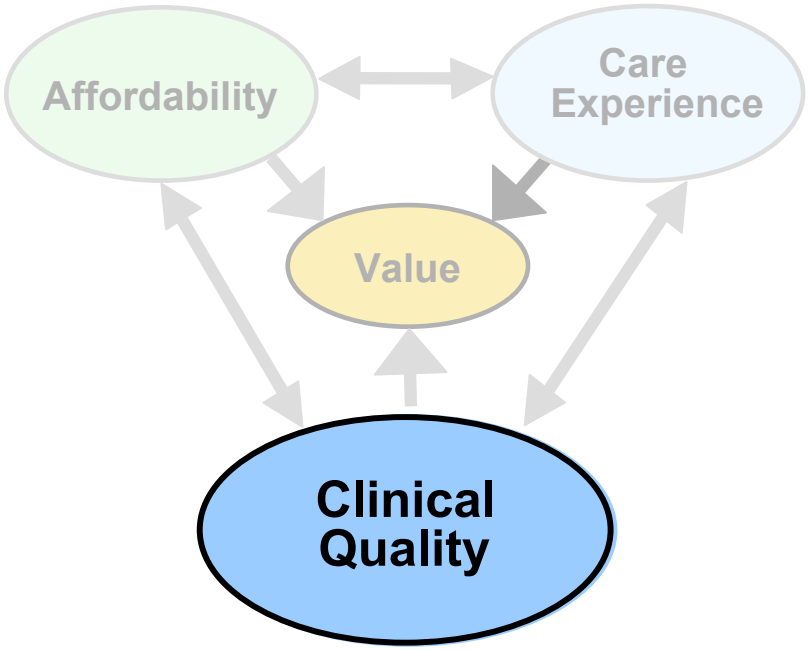
Purchaser Perspective



Consumer Perspective



Clinician Perspective



Perspectives Can Change… Consumer Example

- Increased consumer cost-sharing
  - As purchasers shift more responsibility for the cost of health care to consumers, consumers pay more attention to affordability
- Timing
  - Pregnancy or planned major surgery may increase relative importance of clinical quality

Within Segment Differences

- Consumers
  - Sick vs. well
  - Degree of risk-aversion

- Purchasers
  - “Value” purchasers vs. price purchasers
  - Workforce: age, tenure, size
  - Self-insurance

- Clinicians
  - Degree of integration of DM program with practice
  - Size of group

Measuring Value — Challenges

- Within value components
  - Affordability
  - Care experience
  - Clinical quality
- Across value components
  - ROI
  - Cost-effectiveness

Measuring Cost and Affordability

Sources and Methods	*Measurement Challenges*
■ CBO ■ NCQA Efficiency Measurement Advisory Panel ■ DMAA Guide to DM Program Evaluation ■ Bridges to Excellence ■ Disease Management Purchasing Consortium • Certification Program for DM Savings Measurement ■ National Managed Health Care Congress Workgroup ■ …	■ Regression to the mean ■ Selection bias: opt-in vs. all members; population subset vs. entire population ■ Savings relative to trend vs. absolute savings ■ Risk adjustment across plans ■ Total costs vs. disease specific costs ■ Savings: to whom? ■ Many more...

Measuring Clinical Quality

Sources and Methods

- HEDIS
- National Quality Forum
- Ambulatory Care Quality Alliance
- Accreditation: NCQA, URAC, JCAHO…
- CMS
- States
- Purchaser RFPs
- …and on and on...

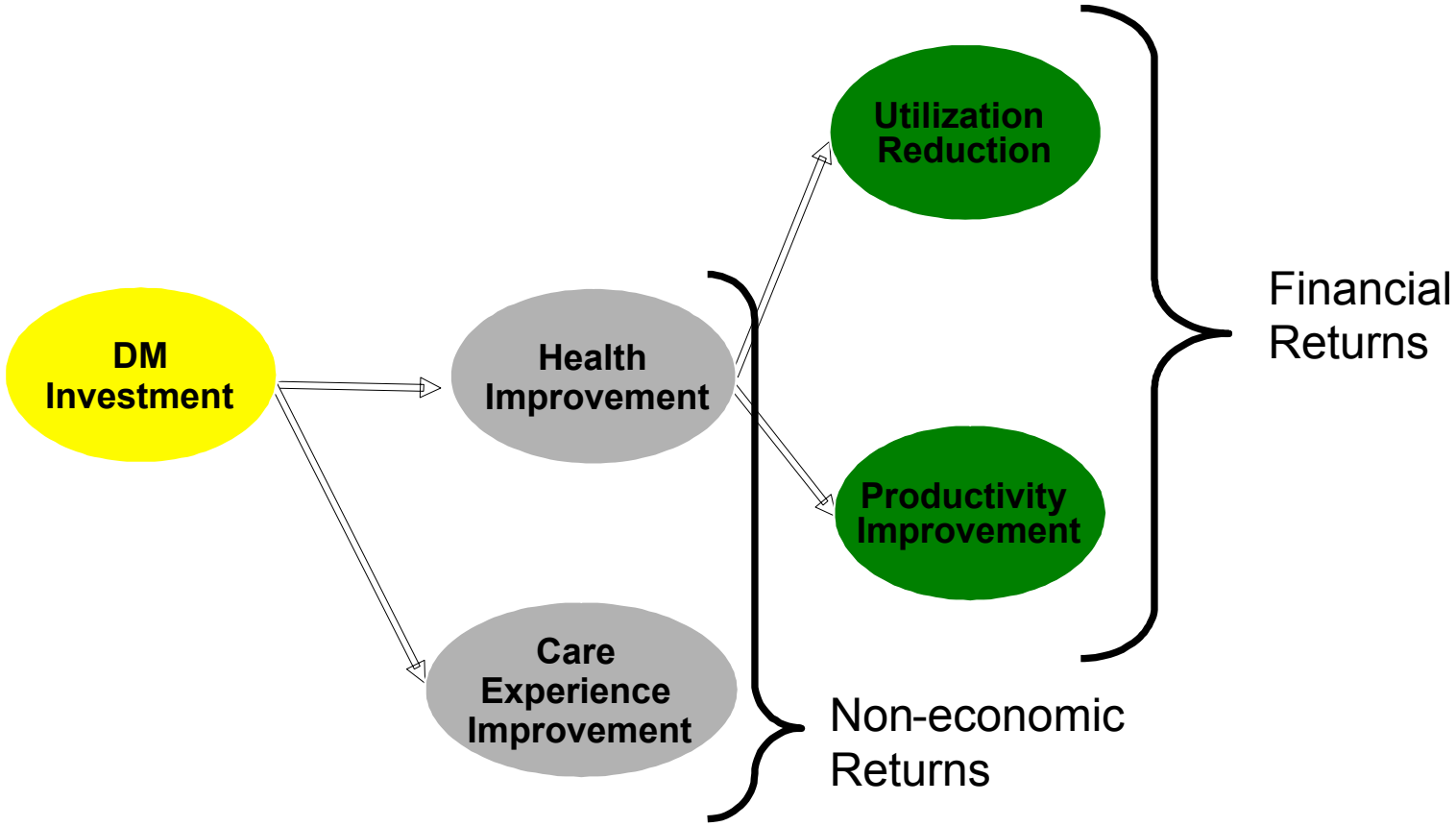
Measurement Challenges

- Aggregation of quality measures
  - No standard metrics in practice (e.g., “QALYs”)
  - “Too many, too few” problem
- Coordination
- Measuring functional status and quality of life
- Time lag for health outcomes

Measuring Care Experience

Sources and Methods	***Measurement Challenges***
■ CAHPS ■ DMAA patient satisfaction survey	■ Aggregation/translation of survey data into meaningful accreditation scores ■ Sampling ■ Expensive

Return on Investment Causal Pathways



Decision Points — Value Trade-offs

- Consumer
  - Selecting a health plan or clinician
  - Adherence to care plans

- Clinician
  - Coordination with DM program
  - Treatment recommendations for individual patients
  - Panel management

- Purchaser
  - Selecting a health plan
  - DM carve-out
  - Self-insurance

- Health plan
  - Making DM investments (including outsourcing)

Framing Value —

Stakeholders' choices are influenced by the information they receive.

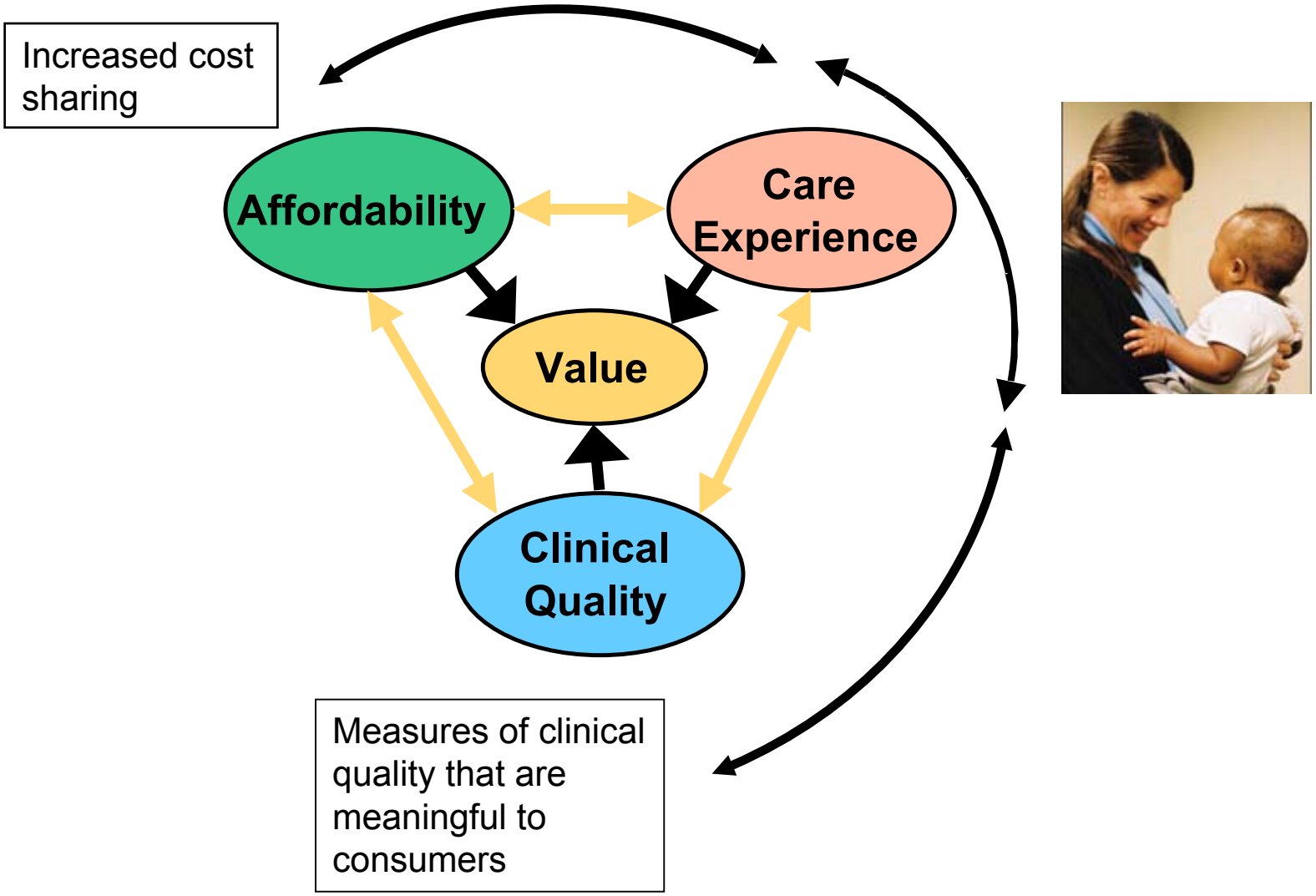
- Information content and the way it is communicated — together — determine stakeholders' understanding of their choices
- Value "framing" can affect choice
- Variety of information sources, including marketing materials, regulatory reports, RFPs, consultant evaluations

Framing Value — *continued*

Stakeholders' choices are influenced by the information they receive.

- Example
  - Real-world choices are based on *relative* quality and price
  - But what's the frame of reference? Vs. competitors? Improvement over time? Vs. "Usual care"?
- A key decision for value assessment and value demonstration is what "framing" to apply

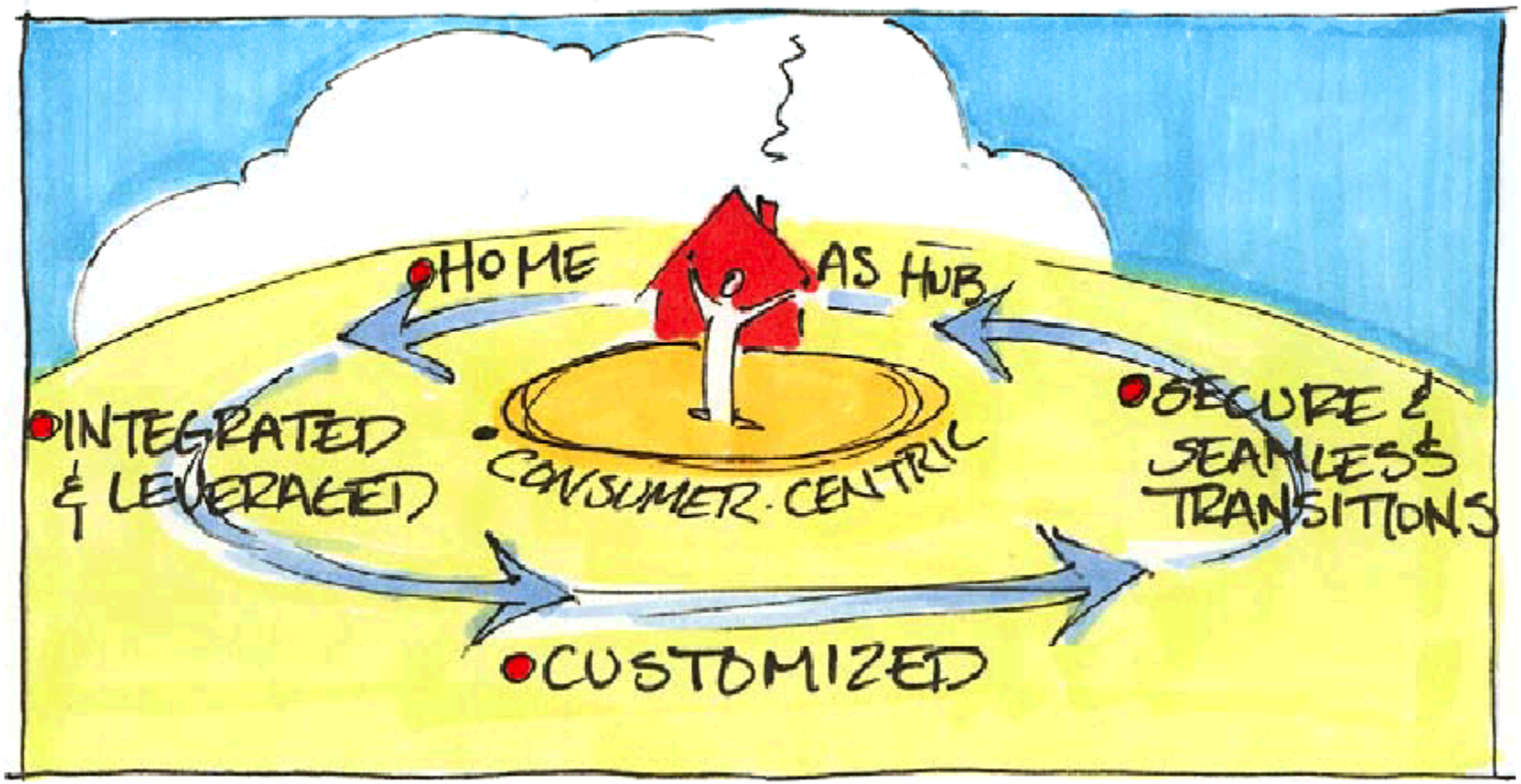
Broadening the Consumer Perspective



How do we get the consumer's attention?

- "Rules of the Game" model
  - Disease management
  - Case management for high risk participants
- "Skin in the game" model
  - Tiered co-pays
  - Coinsurance
  - High Deductible Health Plans
  - Tiered networks: hospitals, specialists, PCPs
  - Consumer Directed Plans
- "Brain in the game" model
  - Healthy lifestyles, wellness activities
  - Self management for acute and chronic conditions
  - Shared decision making
  - Web-based decision support tools

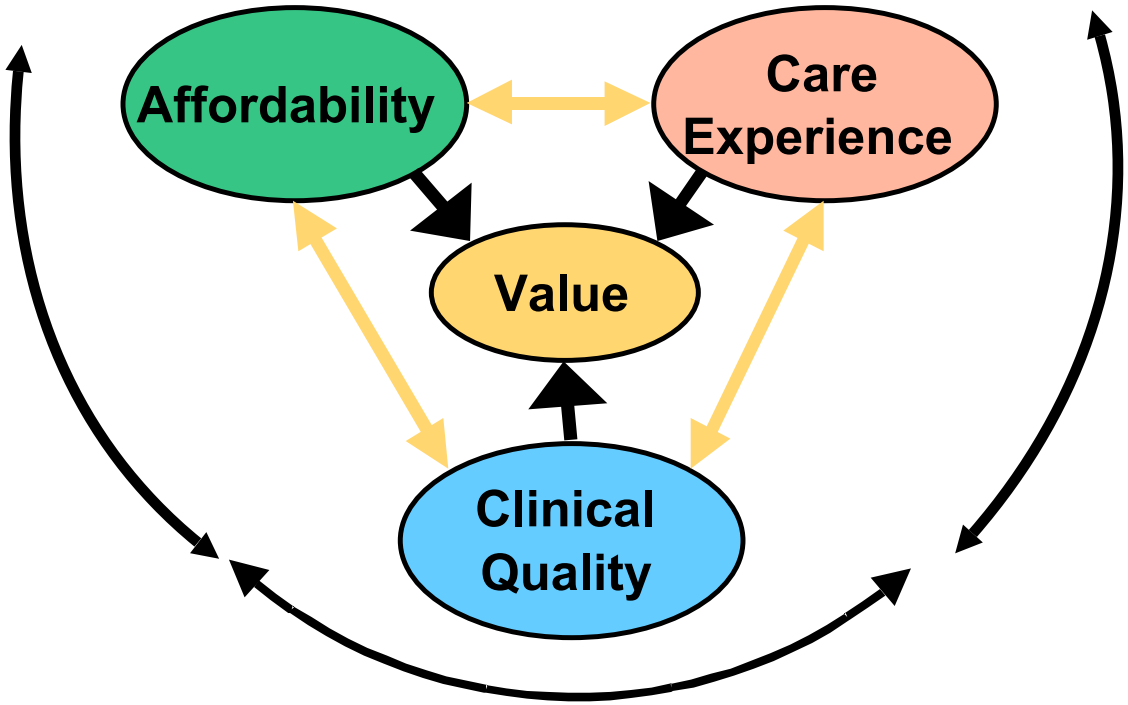
The Patient at the Center of Care



Broadening the Clinician Perspective

Feedback on cost implications of care decisions

Impact of increased consumer cost sharing on care decisions and compliance



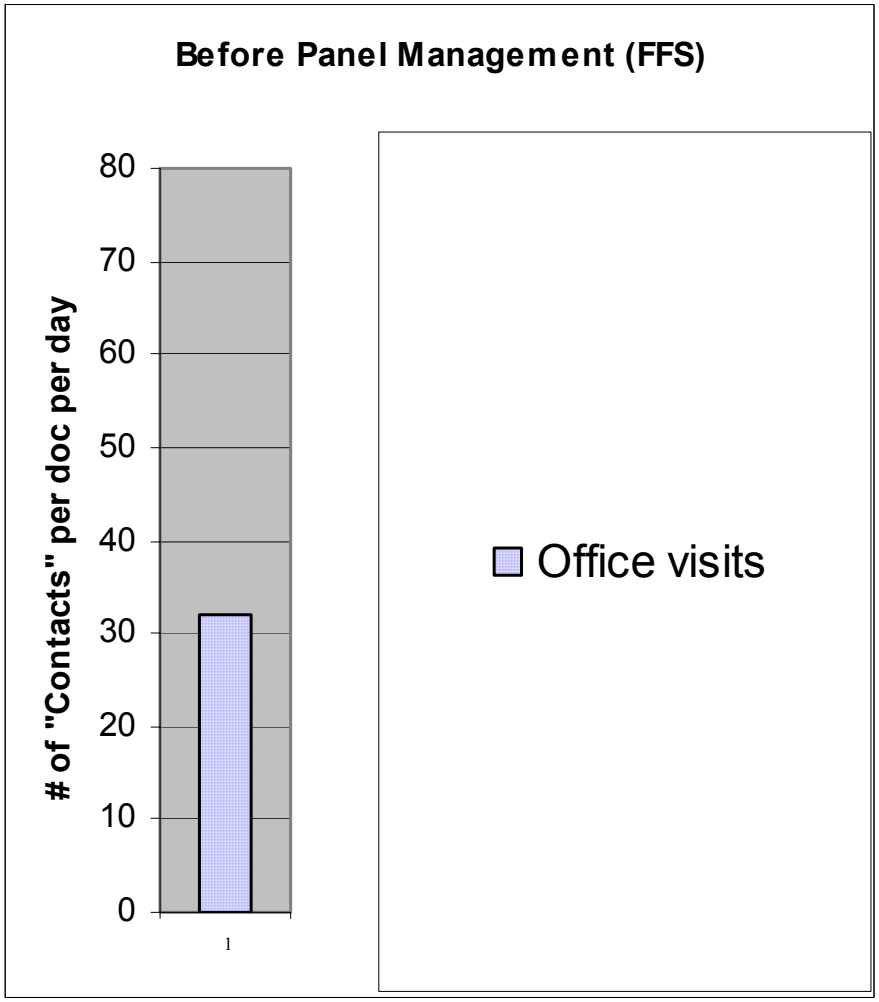
Enhance "care giving" experience

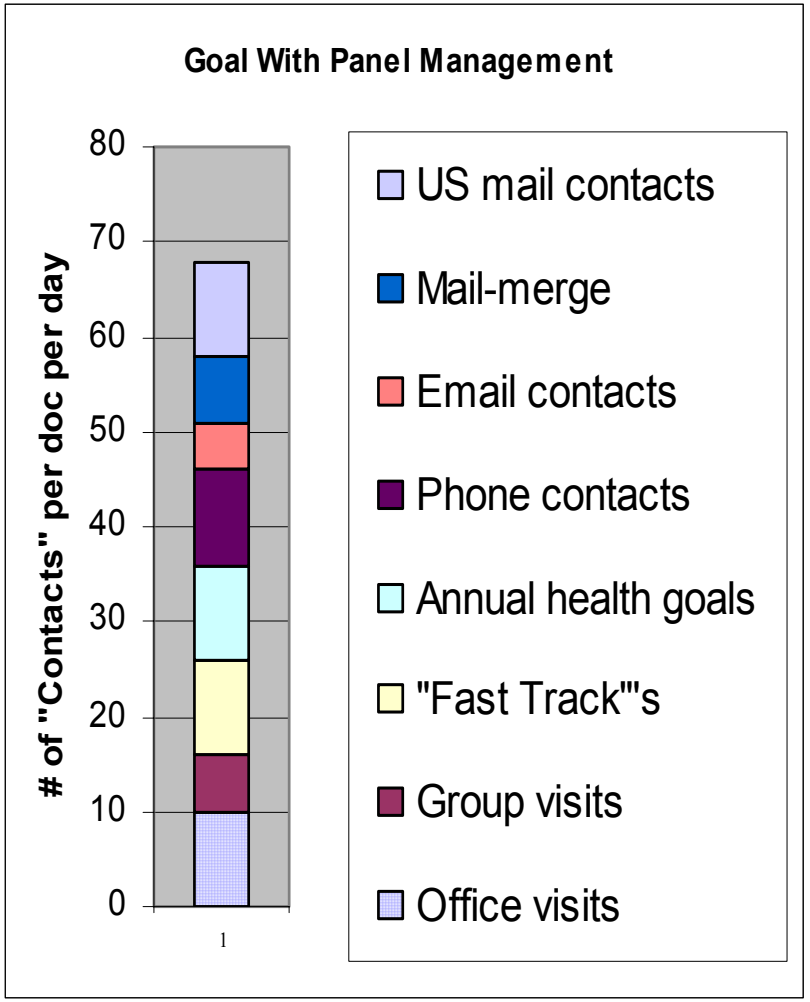
Provide patient satisfaction feedback

Clinician Perspective

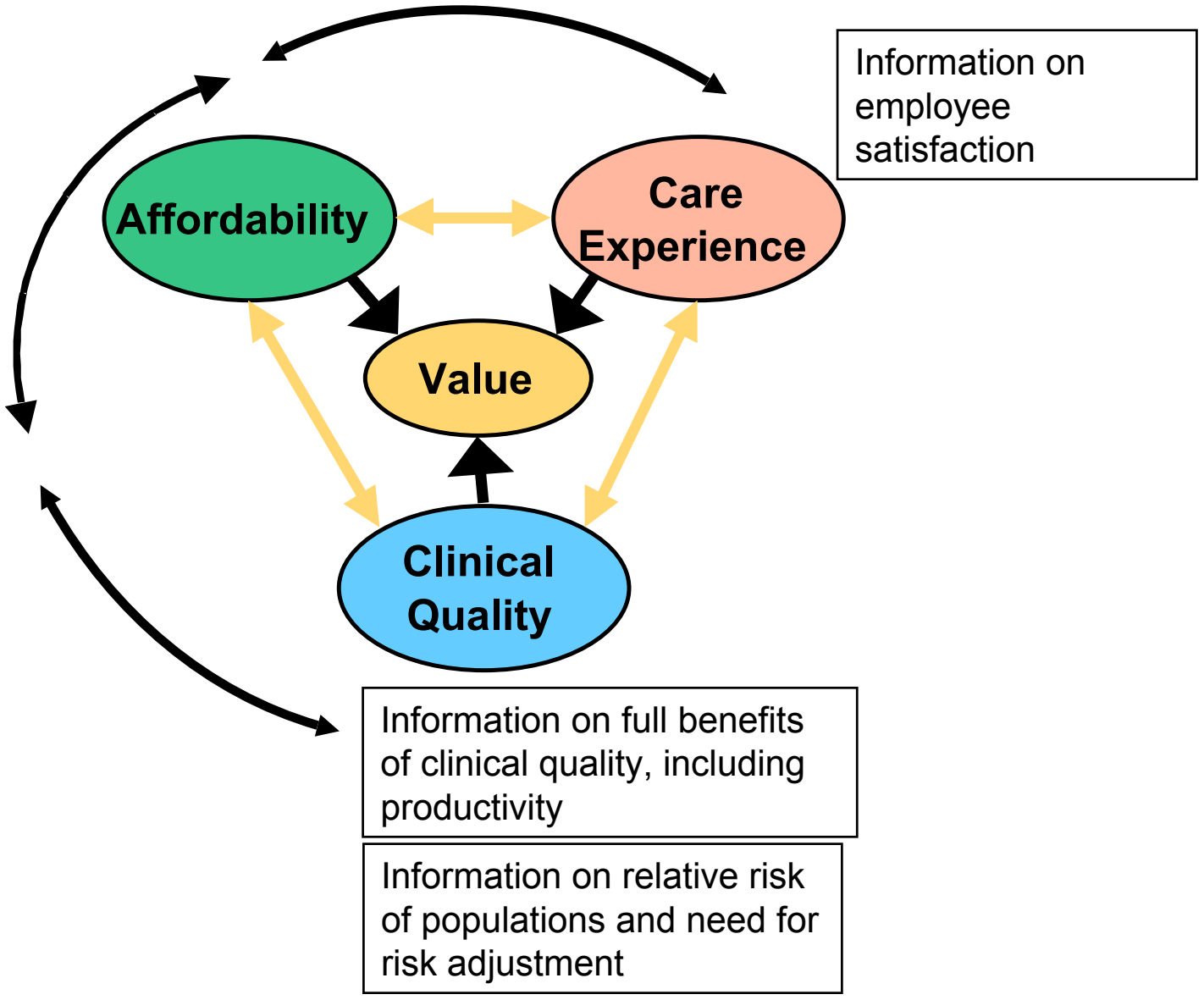
Primary Care Physicians and How They "Manage" Their Patient Panel

Every system is perfectly designed to produce exactly what it delivers…





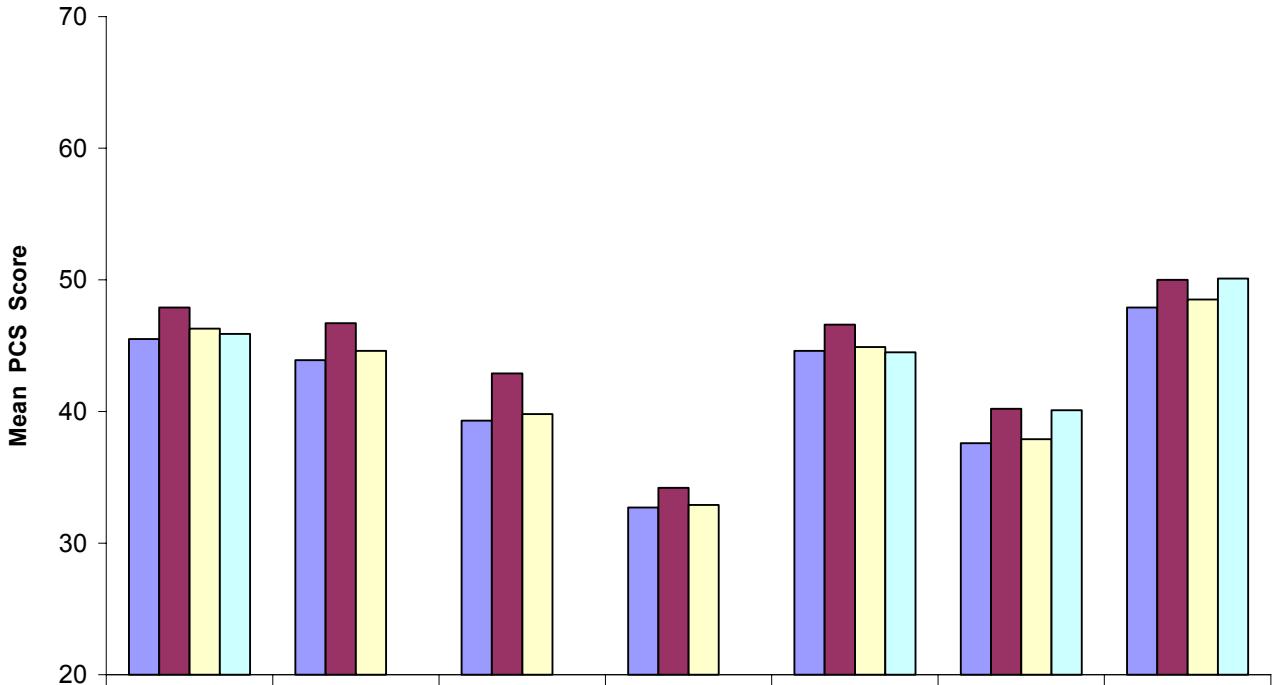
Broadening the Purchaser Perspective



Health Impact Assessment (HIA) Survey Tool

- SF-8™ Health Survey (physical and mental status)
- Disease-Specific Questions
  - self-management (confidence to manage disease)
  - self-efficacy (confidence to prevent disease from interfering with daily activities)
  - absenteeism (missed school work days in past 12 months)
  - AIS-6 (asthma impact score for asthma cohort)

Physical Component Summary (PCS) Scores by Chronic Condition Cohort and Mode of Administration[1,2]

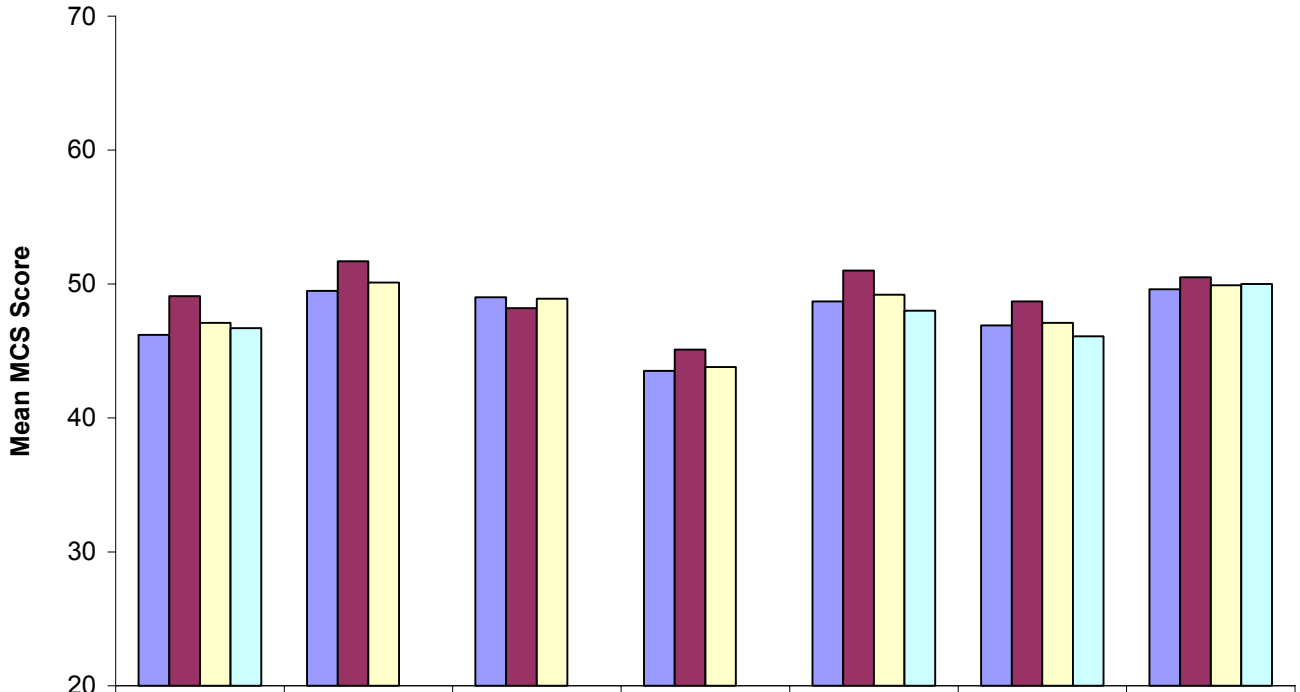


	AS	CAD	CADDM	CP	DM	HF	NOCHR
IVR	45.5	43.9	39.3	32.7	44.6	37.6	47.9
NET	47.9	46.7	42.9	34.2	46.6	40.2	50.0
TOT	46.3	44.6	39.8	32.9	44.9	37.9	48.5
US	45.9				44.5	40.1	50.1

[1] For chronic conditions, includes members that were ever told they had chronic condition

[2] A difference of 5 points between groups is considered clinically significant

Mental Component Summary (MCS) Scores by Chronic Condition Cohort and Mode of Administration[1,2]

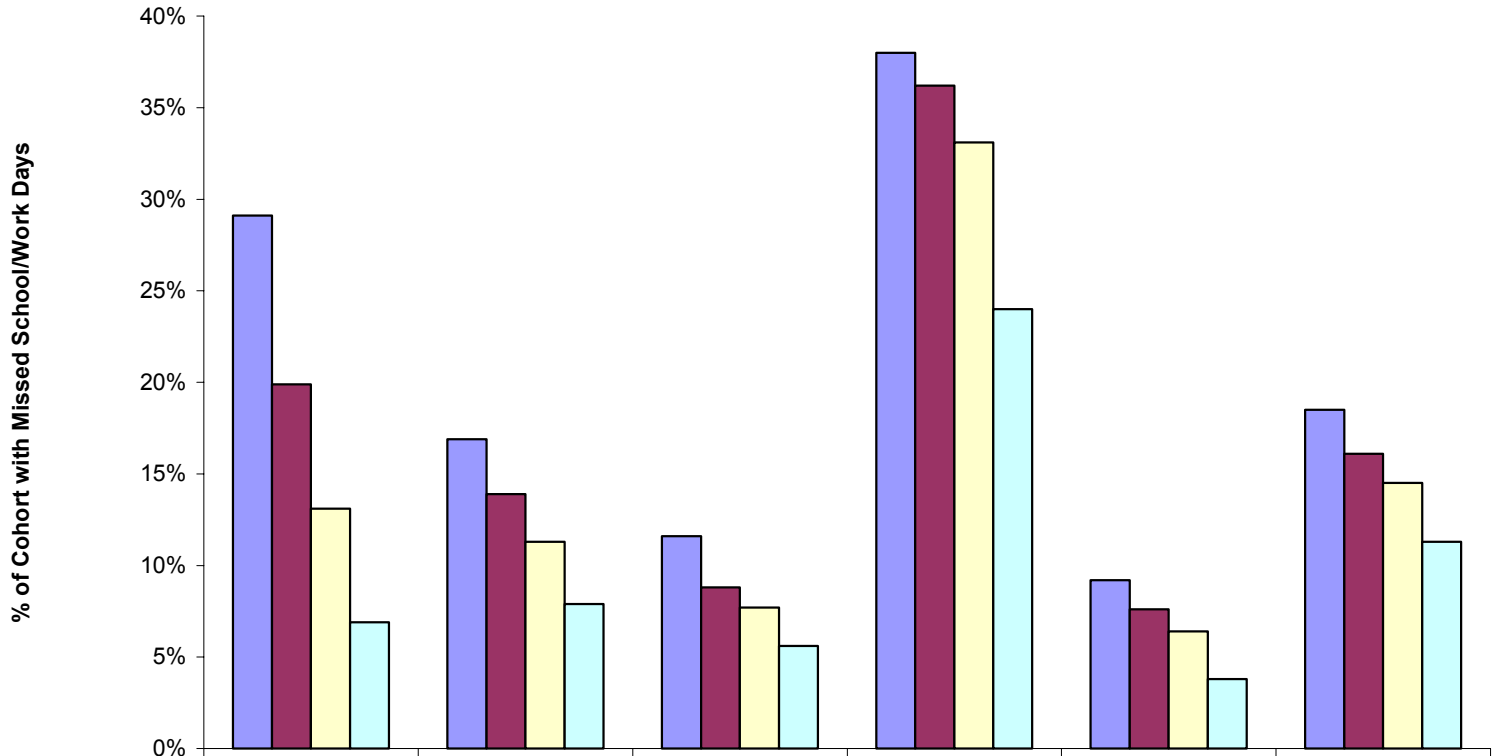


	AS	CAD	CADDM	CP	DM	HF	NOCHR
IVR	46.2	49.5	49.0	43.5	48.7	46.9	49.6
NET	49.1	51.7	48.2	45.1	51.0	48.7	50.5
TOT	47.1	50.1	48.9	43.8	49.2	47.1	49.9
US	46.7				48.0	46.1	50.0

[1] For chronic conditions, includes members that were ever told they had chronic condition

[2] A difference of 5 points between groups is considered clinically significant

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%

Measuring Overall Value

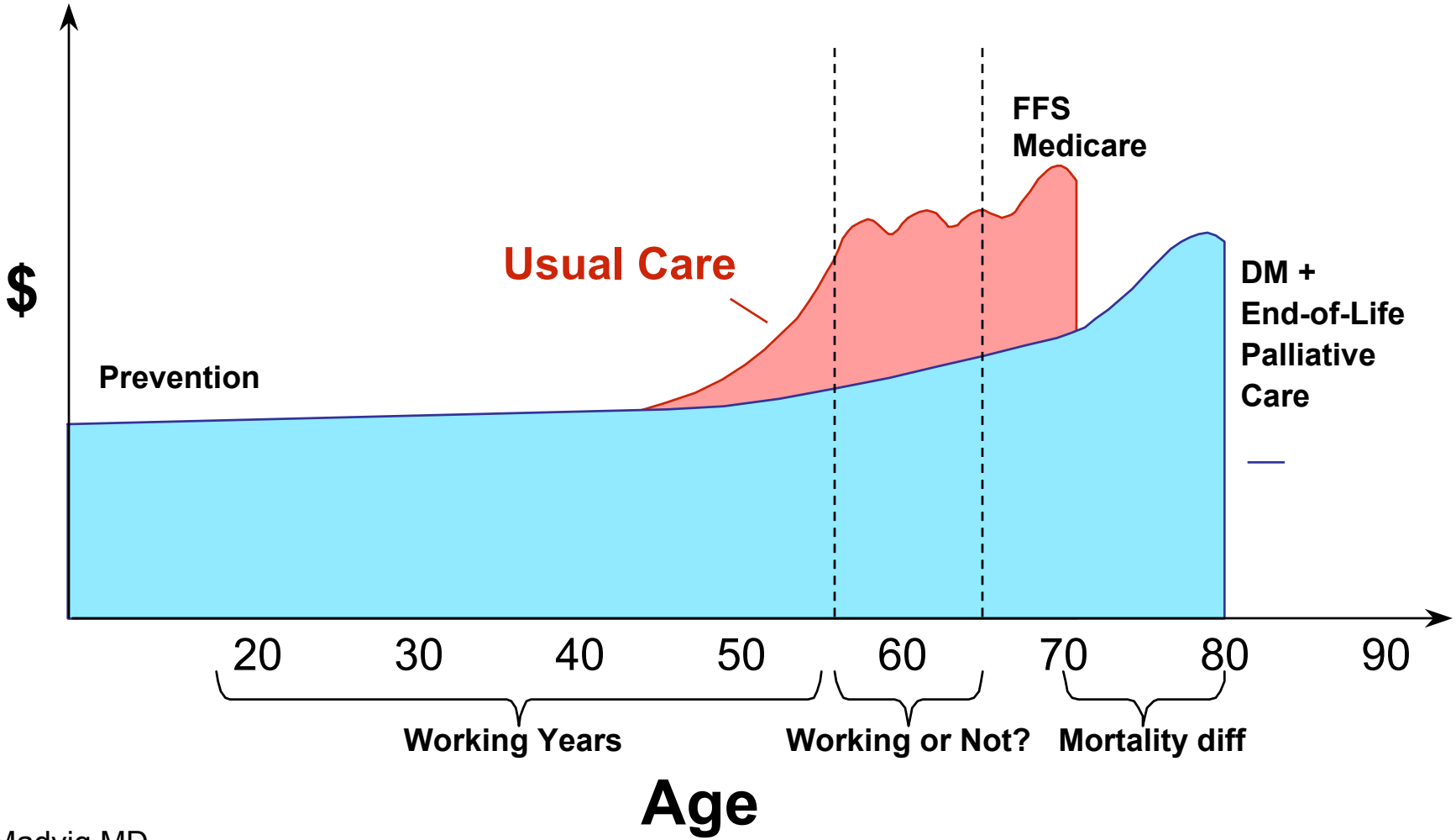
Sources and Methods

- DMAA Guide to DM Program Evaluation
- American Healthways/Johns Hopkins white paper
- Disease Management Purchasing Consortium
- NCQA: combination of quality and resource consumption metrics

Measurement Challenges

- Valuation of quality improvements
- "Live to utilize" issue
  - Hearts vs Hips
  - ICUs vs Palliative Care

Thinking about Care in the Future



Phil Madvig MD
The Permanente Medical Group

KP Priority Conditions

Clinical Area	KP Members with this Condition	
Asthma	84,000	(2.4% of members)
Coronary Artery Disease	197,000	(3.4%)
Depression	402,000	(7.0%)
Diabetes	546,000	(9.6%)
Heart Failure	97,000	(1.4%)
Cancer	25,000 new cases/yr	
Chronic Pain	285,000	(5.1%)
Elder Care	869,000	(11.3%)
Obesity (BMI > 29)	~ 30% of adults	
Self Care & Shared Decision Making	8.3 MM	

Does Care Management Save Money? The KP Experience

In 2003, programs for diabetes, heart failure, CAD, asthma and Depression "saved" ~$200M ***relative to cost trends*** in Northern California (~3 M members)

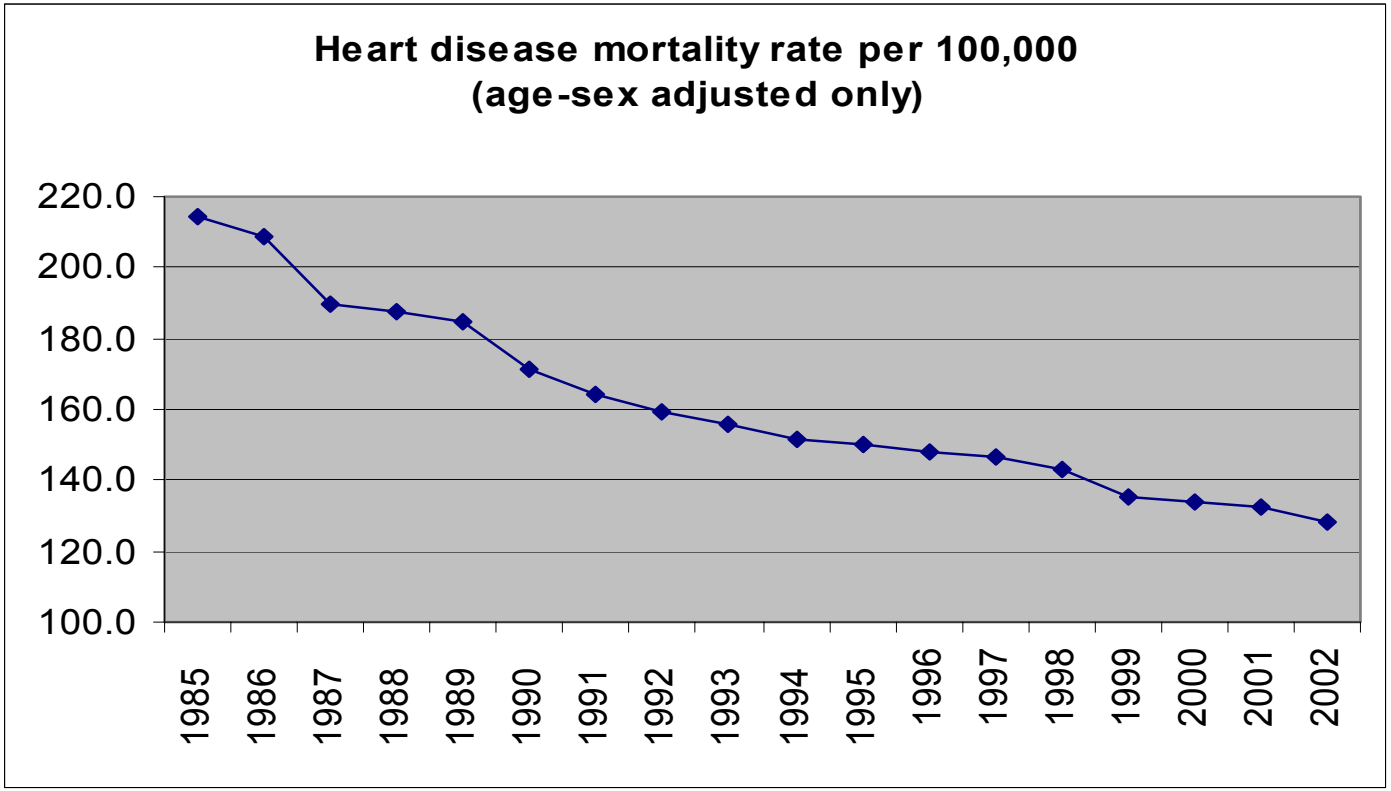
- These programs did not produce absolute savings – we spent more on the care of the ***entire population*** of members with diabetes, heart failure, coronary artery disease, asthma and depression in 2003 than in 2002.
- (Doing more and more things that are cost-effective, *but not cost saving*, does not save money)
- Substantial increases in clinical process and outcome measures have been achieved for diabetes, heart failure, coronary artery disease, asthma and depression
- These programs continue to produce absolute value from the perspectives of the health system stakeholders

Fireman, et. al. Health Affairs. 2004; 23 (6): 63-75
Crosson, et. al. Health Affairs. 2004; 23 (6): 76-78

Heart Disease Mortality Rate

KP Population

- **25% Reduction in heart disease deaths 1990-2002**
- **Heart disease no longer leading cause of death for KPNC members**
- **KPNC members have 30% lower chance of dying from heart disease**

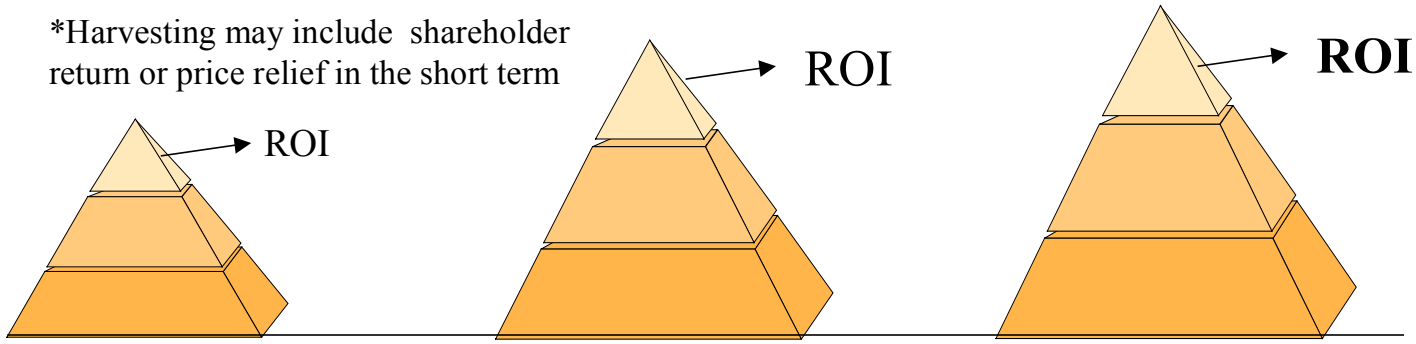


B. Fireman, et.al, DOR 2004

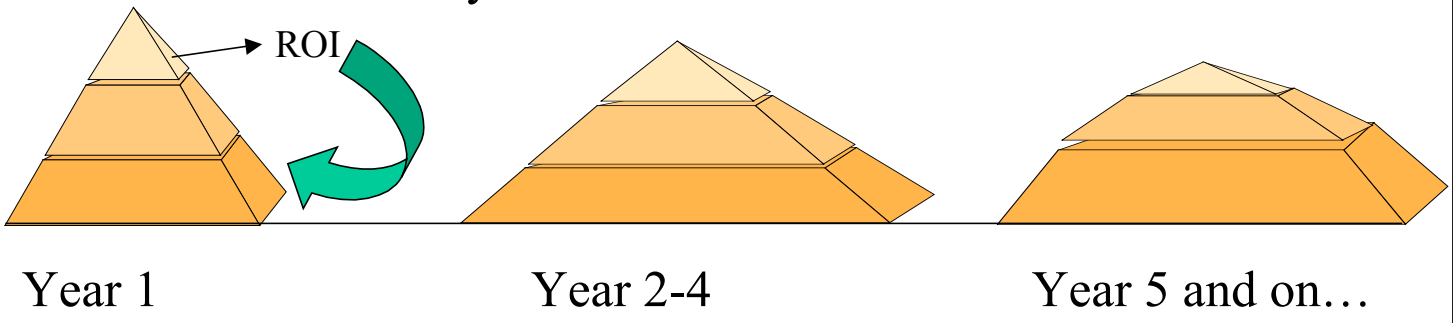
Return on Investment…
…and Investment of Returns

Scenario 1: ROI "harvested"* (and leaves the out year populations larger, but with the same proportions of care need as in year 1)

*Harvesting may include shareholder return or price relief in the short term



Scenario 2: ROI "harvested" ***and*** re-invested upstream for the expanding Population resulting in re-distribution of the population Care needs in the out years (assumes primary and secondary prevention work, with out-year ROI)



Summary

- The value of Disease Management (DM) is in the eye of the beholder
- Stakeholder assessment of value and the trade-offs they are willing to make reflect their perspective and situation
- No single measure of value is all encompassing, although measures to support common perspectives are evolving
- Understanding and balancing the different perspectives is necessary to evaluate overall DM value

The Next CBO Report…2006

- "Technical issues"
  - Search currency, exclusions and inclusions
  - Relevance to Disease Management as delivered in 2006

- The problem formulation
  - From the perspectives of affordability, the care experience and clinical quality, are we harvesting maximum value for every dollar being spent on care for individuals with chronic medical conditions? What trade-offs are being made between these perspectives?
  - Does use of Disease Management improve overall value return relative to the status quo?

Personal Perspective…

- Is There Long-Term Value in Disease Management Programs?

An Unequivocal Yes