The Best Kept Secret in Population Health:

Engaging Your Physicians to Reduce Unwanted Clinical Variation and Save Money

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MARCH 20, 2018



Summary

- Unwanted clinical variation is a plague that gives us poor quality & high costs.
- You have tried many cures... with modest or no success
 - Consultants, EMR alerts, guidelines, CM, M&M conferences, etc.
- The missing piece may be engaging your doctors/providers.

- We have been using patient simulations in a group setting to engage:
 - Everyone cares for the same patients
 - Give individual and group feedback
 - We benchmark their care to peers and guidelines
- This serial engagement consistently leads to lower costs and higher revenue for systems all

over the country

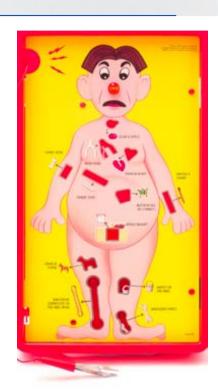
Cutting Costs Is Not the Answer: The Goal Is to Create Value

Value = Quality / Costs

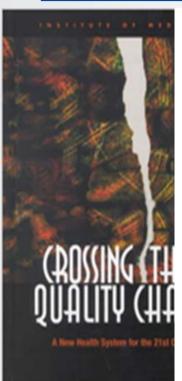
Value Comes from Raising Quality.

It Requires
Leadership, Vision,
Passion and Creativity

- The old saying is true, "You can't cut your way to prosperity":
 - Cuts affect doctors, services, or morale and often all three
- Cuts don't get at the root of the issue:
 - 80% of health care spending is controlled by physician decisions



The Research Is Clear: Unwanted Clinical Variation Is Pervasive



ORIGINAL ARTICLES

Sources of Variation Guidelines: Results 1

J. B. McKinlay 1.3, C. L. Link 1

*New England Research Institutes, 9 Gale Warner's Health Interdisciplinary Research

BACKGROUND: Health services mented the magnitude of healthstudies focus on provider level so clinical decision making for exant care providers are likely to follow with which twees of nations.

OBJECTIVES: To estimate: (1) the care provider adherence to practic unconfounded influence of (2) pata physician characteristics on adh practice guidelines.

DESIGN: In a factorial experiment ders were shown clinically authorities were shown clinically authorities again of coronary heart disease EU providers were asked how they different "patients" with identic Measures were taken to protect ex-

RESULTS: Altherence to some gui 50% of physicians would follow a mended actional, yet there is low a them fless than 20% would follow female patients are less likely tha of 5 types of physical examina patients are less likely to be adut (pc.03. Roce and \$525 of patien provider adherence to guidelines... experience (agri appears to be in nationals.

CONCLESIONS: Physician adhere varies with different types of "palength of clinical experience. With possible to appropriately target inthe health care variations by improvience with clinical guidelines.

Received Pelmany 22, 2006 Revised June 19, 2006 Accepted November 10, 2006 Published online January, 9, 2007



Editorial

Forty years of unwarran

In 1987, Fresh over of my morehand true lams, 1 mode a) also direction of Versions Fronzans (SAFF) at the University of Versi SAFF) was part of a national program. National Poststanes of Health, whose good all Americans had access to the grant Link care now available at accelerate in the post of the control of the control post of the control of the control care units, and came to my now pilo of entholiums for decoding with the care. But I also came as one trained in acquisited with the quantitative method exception of the control of the control acquisited with the quantitative method exception of the control of the control of exception of excepti

I worked with Also Gittehobs, a h Johns Hopkins who had also been my to method for comparing the populationamong prighboring hospital service as the "small area analysis of health care a areas were designed to maximize variat differences in behavior of abssicians acket" in which they practiced. We first o origin study that defined the geographic health care markets, of which there w ranging in population size from just ur 100,000. (In each area, the large major provided locally.) We then measured resource inputs (such as physician labor critication of hospitals, marries bornes. diamostic tests and surrical rescedure possible, medical need and outcomes.

The first view of the results brought a sue had expected to find underservice Vermont, we found intered a typology tred by vast variations in the deployme the utilization of services among neight its, without apparent rhyine or manor Here is a brief synopsis of what we

\$168-85103 - see front matter © 2013 Elsevier I

Here is a brief synopsis of what we i publication, the 1973 article in Science

TH NEW ENGLAND J

SPECIAL

The Quality of Health (in the Un

Elizabeth A. McGlynn, Ph.D., Steven M. Joan Keesey, B.A., Jennifer Hicks, M.P. and Eve A. Ke

ABST

BACKGROUND

We have little systematic information above wolved in health care — a key element of q

METHODS

We telephoned a random sample of adults States and asked them about selected heal consent to copy their medical records for information to evaluate performance on 43 chronic conditions as well as preventive ca

Participants received 54.9 percent (95 per ommended care. We found alite difference wentive care provided (54.9 percent), the p vided (53.5 percent), and the proportion conditions (56.5 percent). Among different es involved in care ranged from 52.2 perce care. Quality varied substantially according from 78.7 percent of recommended care (9 senile carract to 10.5 percent of recommended 114.60 for alcohol dependence).

CONCLUSIONS

The deficits we have identified in adheren pose serious threats to the health of the An icits in care are warranted. ABSTRACT

BMJ Open Caesarean

insurance:

Ilir Hoxha, 1,2 Lamprin

Bruno R da Costa,21

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Conclusions Caesarean sect

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INTRODUCTION

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 Propublication history and additional material for this paper are available online. To view please visit the journal (http:// dx.doi.org/10.1106/mjqpen-2014-014600.

Received 24 February 2017 Revised 7 July 2017 Accepted 7 July 2017



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Prospective Id

Amy S. Kelley, MD, MSHS^{1,2} Botto, MJ, ISA.

Jonathan S. S. Tooloo of Good States

Background: Understanding factors assoc Objective: To investigate factors associa older adults and examine if baseline pro-Design/Subjects: Prospective observation Measurements: We identified people wi metastatic cancer or functional impairm them for one year. We examined relat Medicare costs, and then stratified analy-Results: From 2002 to 2012, \$208 subj. Consciousness in Con-76% non-Hispanic white, and 39% hospi Medicare costs averaged \$20,607. In mu heart and lune disease, multimorbidity, (higher costs (p<0.05). However, amon significant. Instead, African American ra 1.31 and 1.54, respectively) were signiresidence in high-spending regions was a \$11,162 amone other racial groups, hold Conclusions: Among seriously ill older: among those with poorest prognoses, no greater influence on treatment. This sugge by assuring patient-centered, goal-directs

Keywords: disparities: health services re

ntroduction

By 2040, it is projected that I out of epent in the United States will be spent i Healthcare reform debates have highlighted healthcare costs among a small perportion of and considered policy proposals to identify it group and reduce their costs. While this dishigh-cost population in the United States has of the population at the end of life, among a highest healthcare costs, only 11% are in the

*Brookdale Department of Geriatrics and Palliat *Geriatric Research Education and Clinical Cent *Division of Geriatrics, Department of Medicine *Department of Economics, Darmsouth College, School of Medicine, Lebanco, New Hampehine.

Physician age

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observational s

Yuruke Rugawa, 12 Jo Anupam B Jena^{1,1,2} Youte Sugara

ABSTRACT

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RESARTS

WHAT IS ALREADY KNOWN ON THIS TOPIC

Whether worth of care offices between younger and o

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could lead to improved quality of care, physicians' skil

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Older physicians might have decreased chincal knowle

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WHAT THIS STUDY ADDS

SETTING OBJECTIVE To investigate variation in spending across physicians and its association with US arute care hyspitals.

US assure concurrence.

PARTICIPANTS 5

20% random samplies of 1

OBSIGN, SETTING, AND PARTICIPANTS for this retrospective data analysis, we analyzed a 20% to be refreshivative, sample of 14 to detect on the restriction of 14 to detect of

random sensible of Medicar In the for service beneficiaries (\$5 years and older nelse were hepsphalled with a necessition medical condition and treated by a general internoist between January L. 2011, and December 31, 2004. We first quantified they proportion of variation in Medicar Part 18 quantified graph policy and produced by the proportion of variation in the Medicar Part 18 quantified graph policy and policy and part the description of the properties, the three examined the association between physician quenching and patient outcomes, algorist give patient and physician understands and the condition between physician quently applied by the patient and policy and understands and the condition between the physicians, which was the patient and policy and the patient and policy and the patient and policy and the patient and the patient and policy and the patient and patient and policy and the patient and patient an

EXPOSURES Physicians' adjusted Part B spending level in 2011 through 2012.

MAIN OUTCOMES AND MEASURES. Patients' 30-day mortality and readmission rates in 2013 and 2014.

RESILATS for determine the amount of variation across physicians we recluded 485 0% hospitalizations in setting by 796 g) physicians, 2817 acras care hospitalizations treated by 796 g) physicians, 2817 acras care hospitalization treated by 196 g) physicians, 2817 acras care hospitalization and 28192 hospitalization in variated by 50 000 physicians as 219% across care hospitals for the adjustment of general internets, 50 000 physicians with hospital for the adjustment of general internets, 50 000 physicians with hospital results are sufficient or core hospitals for five patients, 8-fix across physicians with hospital results (and present internets, 50 000 personal sections, 50 000 personal sections, 50 000 personal sections, 60 000 perso

CONCUSIONS AND RELEVANCE. Health care spending varies more across individual physician than across hospitals. However, higher physician spending is not associated with better outcomes of hospitalized patients. Our findings suggest policies targeting both physicians and hospitals may be more effective in reducing wasteful spending than policies focusing when an hospitals.

Published online March 13, 200

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AMA Internal Medicine | Original Investigation | HEALTH CARE POLICY AND LAW

Variation in Physician Spending and Association With Patient Outcomes

Yusuke Tsugawa, MD, MPH, PhD, Asheh K, Jhu, MD, MPH, Joseph P, Newhouse, PhD; Alan M, Zadavsky, PhD, Anupain B, Jena, MD, PhD

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Author Affiliations: Author of filiations are listed at the endaticle.

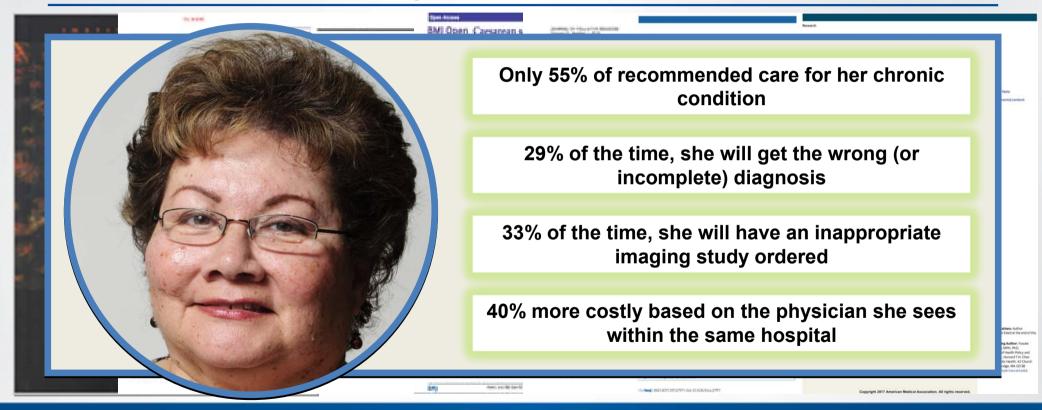
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Clinical Variation's Impact on Patients Is Real



Clinical Variation Makes Your Job as a Healthcare Leader More Difficult

How do you control costs as reimbursement pressures increase?

⊳ Clinical variation is a hidden spending tax (>\$200B in unneeded spending annually).

How do you improve quality?

► Top hospitals have 16% lower complication rates and 26% lower mortality rates.

How do you increase your patient satisfaction?

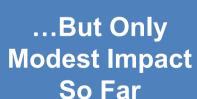
⊳ Engaged providers and staff lead to satisfied patients and higher margin.



Moving the Needle on Variation Is Simply Difficult: One Example

Important Mission

- Support evidence-based care decisions
- +5 years old
- >80 medical society partners
- 525 society recommendations
- >1,300 journal articles (2016)



Slight Decreases

- · Imaging for headache
- Cardiac imaging

Slight Increases

- NSAIDS
- HPV testing young women

Stayed Flat

- Antibiotics for sinusitis
- Low back pain imaging
- Pre-operative chest x-rays



An initiative of the ABIM Foundation

"We've learned is that it's just really hard to change practice"

 Dr. Eve Kerr, Choosing Wisely 5 Year Report Author

Hospitals and Health Systems Address Variation in A Variety of Ways

	Solution	Example Companies
(EHR: Clinical Decision Support and Order sets, Reminders	Cerner, NextGen, Allscripts, Epic, Elsevier, Zynx, Stanson
	Clinical Pathways, Guidelines	Via Oncology, InterQual, NCCN, New Century Health
_	Consulting Services	Deloitte, McKinsey, PwC, Navigant, Huron
	Traditional CME Programs	Medscape, travel seminars, ACP, AMA, UptoDate
<u> </u>	Analytic Dashboards	Health Catalyst, Crimson, QualityAdvisor
-	In-house Solutions	More Medical Directors, Care Managers, Six-Sigma

Why Have Effective Variation Solutions Been So Hard to Find?

Lot's of reasons...

The solution is *Engagement*.



- Clinical data is imperfect
- Little/no feedback on clinical decision making
- Alert fatigue, EMR time
- Evolving practice guidelines
- Few opportunities for peer discussion
- Busy schedules, limited time

We Took a New Approach To Address These Challenges

Engage Physicians	Actively involve physicians with modest time investment
Scalable	Easily deployed system-wide, scalable solution
Standardized Comparison & Feedback	Remove "my-patients-are-sicker" concerns
Results, Results	Able to be executed flawlessly, that delivers quality improvement to patients and cost savings to providers

QURE Healthcare: Established in 2013 Is Uniquely Focused On Reducing Clinical Variation, Standardizing Practice

QURE Healthcare





Lower Costs



Build Clinical Consensus



Raise Quality

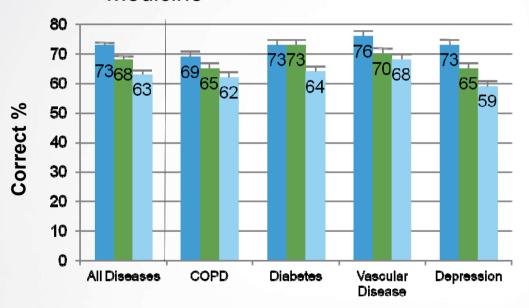
Based upon 15 years of Research:

- Group level participation
- Customized Feedback
- Benchmarking

Our Tool:
Clinical Performance and
Value (CPV) vignettes

Vignettes Were Validated Against Standardized Patients: CPVs Consistently Outperform Charts as a Measure of Quality of Care

Validation papers published in JAMA, Annals of Internal Medicine



Standardized Patients

■Vignettes

■Charts

CPV® vignettes:

- Superior to chart abstraction
- Close to standard patients
- More practical and less expensive than either alternative

CPV Cases Are Online: Everyone Cares for Mr. Ballard

CPV® Vignettes are:

- Patient simulations that target variety of high priority disease areas.
- Validated to measure actual practice.
- Rooted in evidence-based guidelines.
- Opportunity to have everyone care for the exact same patients



Each CPV takes ~20 minutes.

Everyone Gets Individualized Feedback with Practical Clinical Advice to Standardize Their Care

Personalized Prioritized Feedback

- Admission to an area with telemetry (general floor or progressive care unit) is recommended for patients with acute HF decompensation who do not require ICU care (e.g. cardiogenic shock, acute coronary event, need for invasive monitoring). This is to ensure proper monitoring to detect arrhythmias which may occur due to heart failure or as a consequence of treatment.
- A referral to an EP specialist is indicated in this case because cardiac resynchronization therapy is advisable due to EF being less than 35% and ECG findings of LBBB with QRS > 0.15 sec.
- Prescribing the combination of hydralazine/isosorbide dinitrate is recommended for African Americans with NYHA class III/IV HFrEF who remain symptomatic with GDMT.

Peer Benchmarks



Quality Score

My Case Score **41.2%**

Group Round Avg. 56.0%

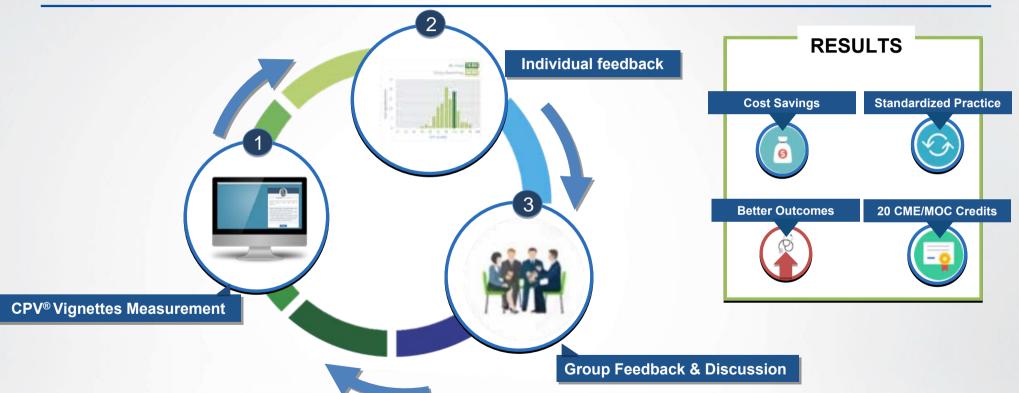
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 65 and older: recommendations of the ACIP. MMWR. 2014;63(37):822-5.

Unneeded Tests



Serial Measurement & Feedback to Standardized Care: Implementation Is 3 Rounds a Year

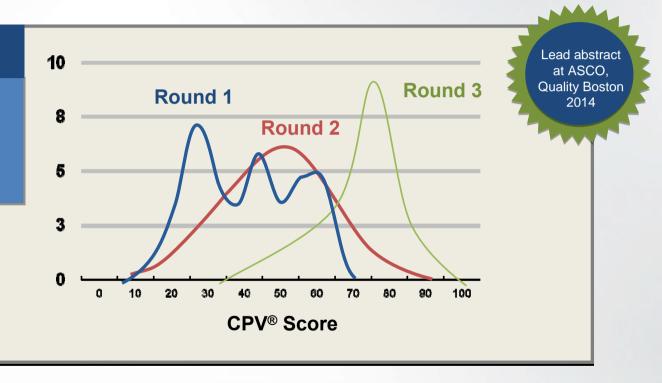


Results in Oncology: CPV Measurement

& Feedback Raised Quality and Decreased Variation Quickly

Results from an NCI designated Hospital: Distribution of CPV® Scores, Round 1-3

Better CPV scores correlate higher quality and better alignment with evidence based guidelines



Results in Primary Care: Proven Patient-Level Impact

CPV quality improvements are mirrored in clinical practice.

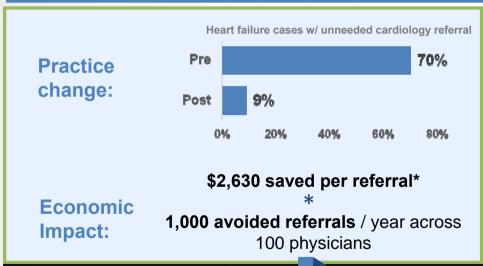
Measure	CPV Improvement	Pre Project	Post Project	Net Patient Improvement
ACE/ARB CAD and Diabetes and/or LVSD*	+5%	73%	82%	+9%
Beta Blocker for LVSD*	+10%	90%	100%	+10%
Breast Cancer Screening	+22%	30%	75%	+45%
Adult Pneumococcal	+38%	67%	86%	+19%
IVD and Aspirin*	+24%	78%	92%	+14%

*Baseline is 2015 year because measure was not tracked in 2014

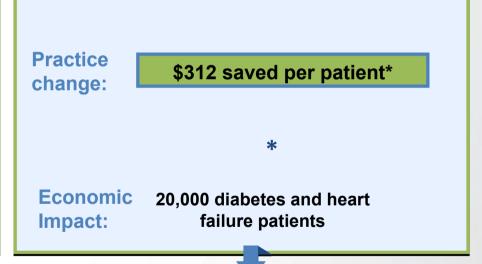
Patient Level Data

Results in Accountable Care: QURE Engagements Deliver Cost Savings

Unneeded Cardiology Referrals \$2.6 M Savings



Unneeded Diagnostic Testing \$6.2 M Savings



\$2.6M Savings

\$6.2M Savings

Results in Inpatient Care: Less Testing, Lower Utilization and Better Quality

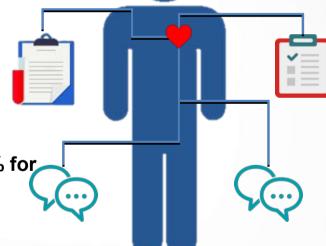


Readmission rates fell 18% in heart failure (from 17.5% to 14.3%) and 45% in pneumonia (from 14.3% to 7.9%).

Heart Failure + Pneumonia

Guideline-appropriate troponin use for HF patients increased 45%.

Palliative care referrals increased 75% for heart failure and 65% for pneumonia patients.



Case management consults rose 14% in heart failure and 15% in pneumonia.

Cardiac rehab referrals for heart failure patients increased 36%.

Engagements Deliver Cost Savings and.... Saved Lives

Significant Annual Cost Savings (Change in Observed/Expected Cost

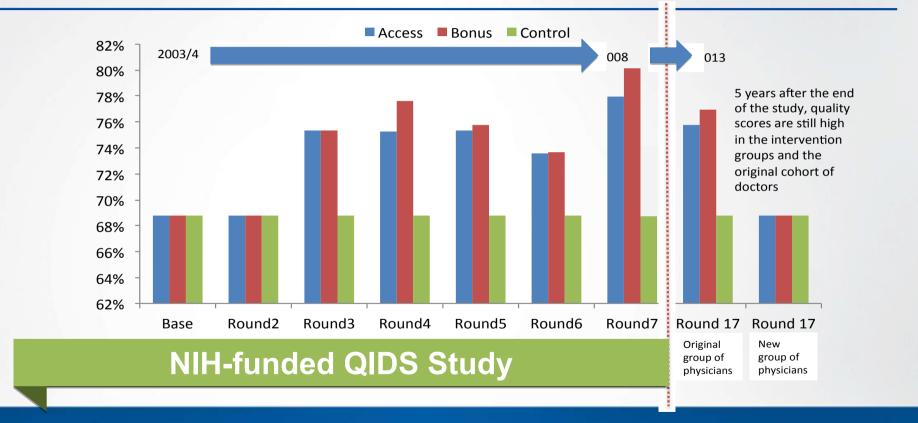
- COPD: ↓ **11.7%** = \$2.1M in savings
- Sepsis: ↓ **20.6%** = \$3.1M in savings

\$5.2 M in annual savings

And Lives Saved (Change in Observed/Expected Mortality)

- COPD: ↓ 28.1% mortality rate
- Sepsis: ↓ 21.6% mortality rate

Results Are Sustainable: Quality Improvements Durable After 5 Years



Serial Measurement and Feedback with Simulations, Is a Flexible Approach for Pursuing a Variety of Clinical Disciplines and Financial Goals

QURE's Clinical Performance and Value (CPV®) Vignettes Projects address...

Examples of Common Clinical Areas

- √ Hospitalist Services
- ✓ Pediatrics
- ✓ Cardiology
- ✓ Oncology
- ✓ Intensivist Medicine

- ✓ Orthopedics
- Primary Care (eg, diabetes, COPD)
- ✓ Much more...

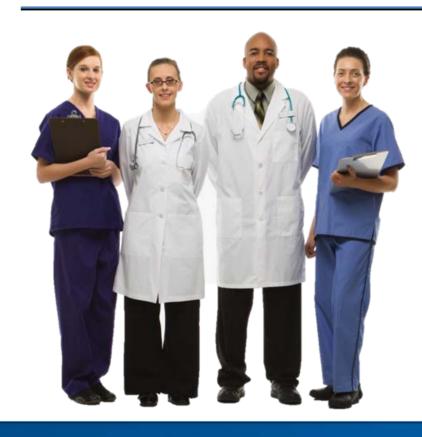
Examples of Common Strategic Goals

- Reduce unwarranted variation
 - Improve clinical quality
- / Lower uppe
 - ✓ Lower unnecessary

costs

- ✓ Build cohesive networks
- Direct appropriate referrals
- ✓ Enhance care coordination

Cutting Costs Will Only Get You So Far, Invest In Your Docs For The Real Returns



It's in the 'trenches', where providers see patients, and care happens.

- Physicians and other providers want to improve
- •Results from our engagement studies using CPVs:
 - Patients get better
 - Health systems have generated ROIs between \$4M - \$13M per year



Thank You

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