

Panel Discussion

The Measures Maelstrom: So Which Metrics are Best?

Moderator: Klemens Meyer, MD

Maggie Carey

Rebecca Schmidt, DO, FACP, FASN

Susan Stark



THE MEASURES MAELSTROM: SO WHICH METRICS ARE BEST?

The Patient Perspective

Presented by Maggie Carey
Forum BAC Chair



ESRD Networks: Which Metrics Are Best?

Susie Stark
Executive Director
Networks 9 & 10



This material was prepared by Susie Stark, Executive Director, The Renal Network, ESRD Networks 9 & 10, under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services. The ideas presented do not necessarily reflect CMS policies or positions.

Metrics: What Defines a Good Measure?

▶ Lean:

- Are quantitative
- Are easy to understand
- Encourage appropriate behavior
- Are visible
- Are defined & mutually understood
- Encompass outputs & inputs
- Measure only what's important
- Are multidimensional
- Use economies of effort
- Facilitate trust

▶ Institute of Medicine:

- Safe
- Timely
- Effective
- Efficient
- Equitable
- Patient-Centered

So Which Metrics Are Best?



Network Patient-Centered Metrics

Quality Improvement Activities:

- ▶ **Topics Determined by Patient LANs**
Goal = 5% relative improvement
Participation = 10% of Network patient population
- ▶ Project Timeframe – May to October

Successful Project Topics:

- ▶ Fluid Management
- ▶ Catheter Reduction
- ▶ Missed Treatments
- ▶ Shortened Treatments
- ▶ Infection Control
- ▶ Goal Planning
- ▶ Vascular Access Monitoring

Network Patient-Centered Metrics

Educational Campaigns

- ▶ **Topics Determined by Patient LANs**
Goal = 10% Relative Improvement
Participation = 20% of the Network patient population
- ▶ Project Timeframe – May to October

Successful Project Topics

- ▶ Emergency Preparedness
- ▶ Increase Physical Activity
- ▶ Infection Prevention
- ▶ Know Your Numbers
- ▶ Transplant Referral
- ▶ Phosphorus Control
- ▶ Home Dialysis
- ▶ Fluid Control

Network Patient-Centered Metrics

Grievance QIAs

- ▶ **Topics Determined by Grievance Trends**
Goal = Decrease grievances by 1%
Participation = At least 5 dialysis facilities
- ▶ Project Timeframe – May – September

Successful Project Topics

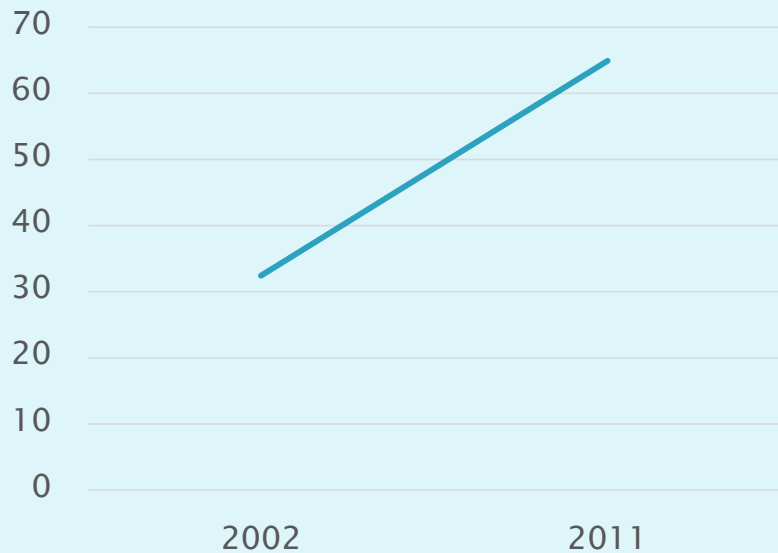
- ▶ Improving Communication
- ▶ Improving Patient Experience of Care
- ▶ Professionalism Training

Vascular Access Measures

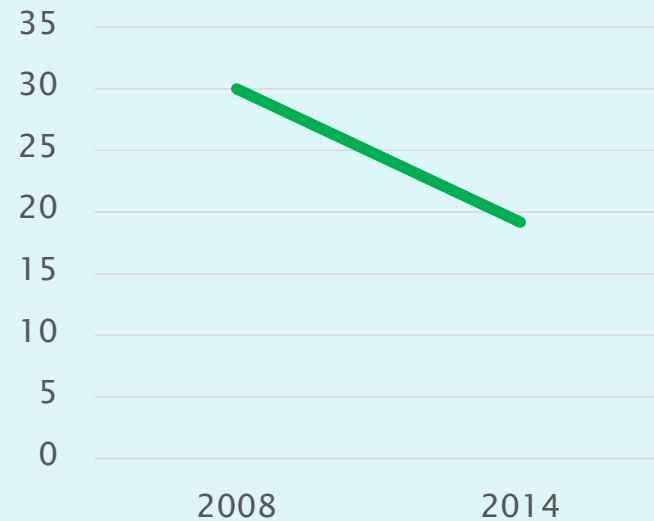
Fistula First: A Success Story

- ▶ Renal Community United
- ▶ Met every attribute of a good measure

Fistula In Use Rate



All Catheter In Use Rate



Healthcare-Associated Infection (HAI) Metrics

Dialysis event data submission to the National Healthcare Safety Network (NHSN) system required monthly

- Dialysis Events include:
 - Positive Blood Cultures
 - Antimicrobial Starts
 - Pus, redness or increased swelling at the vascular access site
- HAI LANs monitor rates to determine intervention needs

HAI Metrics have to opportunity to:

- ▶ Identify & compare the prevalence of blood stream infections
- ▶ Motivate facility staff to address BSI issues locally
- ▶ Reduce the use of catheters
- ▶ Improve infection prevention practices
- ▶ Reduce morbidity & mortality!

Disparity Reduction Metrics

- ▶ Increasing Vaccinations
 - Hepatitis B
 - Pneumococcal Pneumonia
- ▶ Improving Care Coordination & Reducing Hospitalization
- ▶ Improving Transplant Referral
- ▶ Improving Home Dialysis Referral
- ▶ Improving Quality of Life

Disparity Reduction Metrics

Disparities Identified:

- ▶ African American
- ▶ Age
- ▶ Gender
- ▶ Rural
- ▶ Hispanic

Goal:

- ▶ 2 – 10 percentage point overall improvement depending on project chosen
- ▶ 1 percentage point reduction in disparity

So Where Does the Data Come From?

Data Repositories

- ▶ CROWNWeb
- ▶ NHSN
- ▶ Dialysis Facility Reports
- ▶ Performance Score Reports
- ▶ Medicare Claims Data
- ▶ Patient Contact Utility
- ▶ Individual Network Project Databases

Metrics: Challenges and Solutions

	Challenges	Possible Solutions
Data Repositories	Data integrity	Community consensus – <ul style="list-style-type: none">✓ Commitment to the provision of accurate & complete data for quality analysis & improvement✓ Standardization of data definitions✓ Standardization of data entry cycles✓ Commitment to a periodic review of metrics, individually & collectively to assess impact & unintended consequences
Performance Requirements	Management of at least 7 projects in 80% –100% of dialysis facilities	Prioritization of metrics that have the greatest affect on patient quality of care & quality of life

Opportunities to Use Metrics to Improve Patient Outcomes

Renal Physicians Association
Kidney Quality Improvement Registry

Rebecca J. Schmidt, DO
RPA President

The logo for the Renal Physicians Association (RIPA) features the letters 'RIPA' in a stylized font. The 'R' and 'A' are dark blue, while the 'I' and 'P' are a lighter teal color.

Renal Physicians Association

What is a registry?

- A database or data set that collects uniform data (clinical and other) to evaluate specified outcomes for a population.
- Typically defined by a particular disease, condition, or exposure, and that serves a predetermined scientific, quality, clinical, or policy purpose(s).
- Often used for understanding patterns of complex care, aggregating clinical case data, and are often the basis for measures of conformance to “best practices.” (example - STS data sets on coronary artery reperfusion)

Value of Registry to Nephrologists

- Performance Management – continuous measure scoring, benchmarking and patient outlier lists
- Quality Improvement – opportunity to improve quality scores prior to submission of data to CMS
- PQRS, MU2, MOC Reporting services

What is the RPA Registry?

- Web-based, subscription service that is a database of clinical events for entered patients.
- Allows data to be used to participate in multiple professional (e.g. MOC) and incentive reporting programs (e.g. PQRS, MU2).
- Incorporates performance improvement tools including peer comparison, guidelines and resources from the RPA.
- Contained in a secure, online community with social networking and communication tools.

Why the RPA Registry?

- The ONLY nephrology specific, CMS-approved Qualified Clinical Data Registry (QCDR)
- Collects data for the purpose of patient and disease tracking
- Fosters improvement in the quality of care
- Not limited to only PQRS measures
- Enables the RPA to define reportable metrics for quality renal care in the US
- Provides a platform to develop and test renal-specific measures

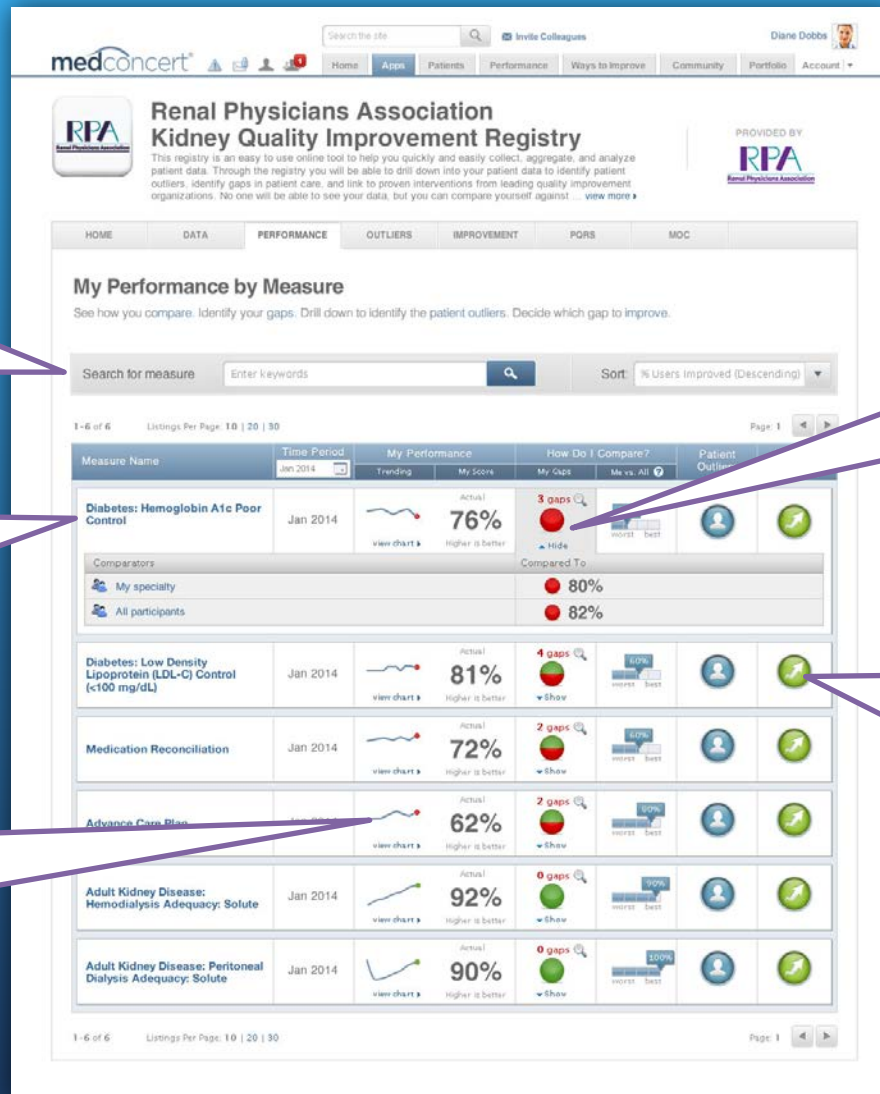
How Can a Registry Help Improve Outcomes?

User friendly monitors benchmark and compare performance in real-time

Search, sort and organize measures by performance gaps to focus on greatest areas of need

Design measures with unlimited benchmarks, goals, and dynamic peer-2-peer comparators

View run charts, benchmarks, and how interventions are working to improve performance



Quickly spot gaps in performance compared to various benchmarks

Link from gaps in measures to recommended interventions for improvement from RPA, dialysis organizations and other experts

Monitor Patient Outliers

Manage quality measure compliance &

Identify at-risk patients or patients falling outside of the measure numerator

Measure Name	Time Period	My Performance		How Do I Compare?		Patient Outliers	How Do I Improve?
		Trending	My Score	My Gaps	Me vs. All		
Influenza Immunization	01/06/2013		Actual 85% Lower is better	3 gaps ▼ Show			
Laboratory Testing (Lipid Profile)	01/06/2013		Actual 81% Higher is better	2 gaps ▼ Show			
Blood Pressure Management	01/06/2013		Actual 83% Higher is better	2 gaps ▼ Show			
Patients on Erythropoiesis-Stimulating Agent (ESA)	01/06/2013		Actual 8% Lower is better	1 gaps ▼ Show			

Patient Outliers

medconcert Search the site Invite Colleagues Diane Dobbs

RPA **Renal Physicians Association** **Kidney Quality Improvement Registry** PROVIDED BY RPA

HOME DATA PERFORMANCE OUTLIERS IMPROVEMENT PQRS MOC

Patient Outliers
Understand your performance by reviewing individual patient outliers.

App: RPA ODDR Measures: Selected Measures Report Period: June 2014

Medication Reconciliation

Overall Score: **76%** (+3.4%)
Trending:

Patient Outliers: **124 / 742** (-2.1%)
Number of patient outliers in the selected full month and average from the previous month.

Patients Outliers (124) Show Patients: All Start date End date

Information	Network	Contact Information	Actions
Brown, Sandy G. F 42y 6/28/56 ID: 12345678	RPA Network	jmjohnson00@gmail.com 412.589.2254 283 Waterford Drive East Suite 100 Homerstad, PA 15120	
Garcia, Jacob M 40y 8/18/82 ID: 23456789	RPA Network	jmjohnson00@gmail.com 412.589.2254 283 Waterford Drive East Suite 100 Homerstad, PA 15120	
Wu, Nancy F 44y 4/21/48 ID: 487426985	RPA Network	jmjohnson00@gmail.com 412.589.2254	
Myers, Andi A. F 42y 6/21/70 ID: 487426985	RPA Network	jmjohnson00@gmail.com	
Johnson, Mike M 72y 10/25/40 ID: 487426985	RPA Network	jmjohnson00@gmail.com 412.589.2254	
LaFleur, Allison R. F 32y 10/11/80 ID: 487426985	RPA Network	jmjohnson00@gmail.com 412.589.2254	
Aiken, Kennedy M 42y 6/2/50 ID: 487426985	RPA Network	jmjohnson00@gmail.com 283 Waterford Drive East Suite 100 Homerstad, PA 15120	
Blossom, Julia F. F 42y 2/17/58 ID: 487426985	RPA Network	412.589.2254 283 Waterford Drive East Suite 100 Homerstad, PA 15120	
Walker, Marcia F 57y 4/25/55 ID: 487426985	RPA Network	jmjohnson00@gmail.com 412.589.2254	
Andrews, David M 53y 3/31/61 ID: 487426985	RPA Network	jmjohnson00@gmail.com	

1 - 18 of 124 Listings Per Page: 18 | 28 | 30 Page: 112 | 3

What Measures Are Included?

Existing PQRS/MU measures, RPA established measures, and future measures that matter to the renal community

RPA-Established Measures (Non-PQRS)

- Angiotensin Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy
- Adequacy of Volume Management
- ESRD Patients Receiving Dialysis: Hemoglobin Level <9g/dL
- Arteriovenous Fistula Rate
- Transplant Referral
- Advance Care Planning
- Advance Directives Completed
- Referral to Hospice
- Advance Care Planning (Pediatric Kidney Disease)
- NHSN Bloodstream Infection in Hemodialysis Outpatients

PQRS/MU Measures

- 28 measures covering clinical areas of Diabetes, Patient Safety, Advanced Care Planning, Adult & Pediatric Kidney Disease, Preventive Care, and Hypertension

How can a registry help?

- Can serve as the source of PQRS data submission (think VBM!).
- We define the measures - thus painting a more accurate picture of “quality” care, even if we can’t directly control costs.
- Help lay the foundation for demonstrating value-based care for other organizations (e.g. insurance).
- Help develop the measures - beyond PQRS measures - and collect the data to better understand how the renal community provides quality care now and in the future.

The Renal Physicians Association Quality Improvement Registry

The Renal Physicians Association Quality Improvement Registry in collaboration with CECity, aims to measure, report, and improve patient outcomes in renal care.



Steps for Participation

STEP 1: Determine if the professional is eligible to participate

List of eligible providers: <http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/PQRS/>

STEP 2: Go to the following website to register:

<http://www.renalmd.org/RPA-Kidney-Quality-Improvement-Registry/>

NOTE: Subscription Discounts Apply to RPA Members

The Measures Maelstrom



<http://www.seafari.co.uk/oban/Gallery/Corryvreckan/slides/Corryvreckan%20Whirlpool.html>

Performance Measures *versus* Doctor-Patient Relationship

The trust between a physician and his patient is in my view a sacred one and if eroded leads to cynicism and impacts the major role of the physician which is to be the patient's advocate. Societal goals and group outcomes based on performance measures such as average Kt/V, serum albumin and average hematocrit are fine but they can mask inadequacies in the delivery of individual patient care under the guise of quality improvement. Medical care is much more complex than these surrogate markers can possibly reveal with the doctor-patient relationship being the most difficult factor to measure.

Bennett WM Nephrol Dial Transplant 2000; 15: 1749.



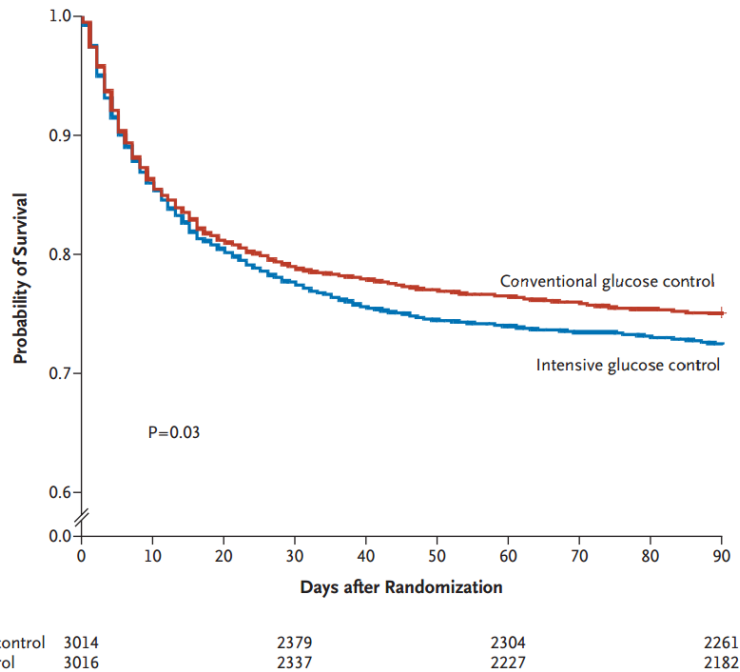
Glycemic Control in Critical Illness

A colleague who works in an ICU in a medical center in our state told us how his care of the critically ill is closely monitored. If his patients have blood sugars that rise above the metric, he must attend what he calls "re-education sessions" where he is pointedly lectured on the need to adhere to the rule. If he does not strictly comply, his hospital will be downgraded on its quality rating and risks financial loss. His status on the faculty is also at risk should he be seen as delivering low-quality care...

...

Orwell could have written about how the word "quality" became zealously defined by regulators, and then redefined with each change in consensus guidelines.

Oops



In this large, international, randomized trial, we found that intensive glucose control increased mortality among adults in the ICU: a blood glucose target of 180 mg or less per deciliter resulted in lower mortality than did a target of 81 to 108 mg per deciliter. (ClinicalTrials.gov number, NCT00220987.)



Not in Kidney Failure Treatment?

- **We knew the right dose of hemodialysis (and then we did not);**
- **We knew that treatment duration didn't matter (and then it did);**
- **We knew the best hemoglobin concentration (or maybe not);**
- **We knew the right blood pressure (...but now we're not so sure);**
- **We knew when to start dialysis treatment (and now we don't).**

The Allocation of Resources

Proponents of quality measurement argue, "It doesn't count unless you can count it." Measurement is essential to the techniques of continuous quality improvement, which are currently being imported from other industries. Health plans, hospitals, physicians' groups, and individual physicians are increasingly being given financial incentives to score well on measures of quality. Although paying for high quality is an innovation with obvious potential benefits, it may also lead to the misallocation of both organizational resources and physicians' time. The medical director at one of California's largest managed-care organizations described the problem succinctly: "Everybody's doing what they are required to do in responding to the quality measurements that are being used. Every ounce of energy is being diverted to responding to these; not one ounce of energy is going to any other aspect of quality."



Pay for Performance in British Primary Care

You look at the screen and the screen's completely obscured by the list of yellow boxes, and it's always trying to balance up the mood the patient's in and getting the boxes ticked, especially with people that don't come in that often. You know, they come in and tell you, you know, that "Oh, my son's died last week," and you go, "Yeah, yeah, whatever. Do you smoke?" or "Yeah, watch, watch your weight" and stuff.

Venous Thromboembolism Prophylaxis

There is a disturbing disconnect between the evidence-based guidelines and the Joint Commission's current performance measure for VTE prophylaxis (VTE-1) for surgical and hospitalized medical patients, which states, "This measure assesses the number of patients who received VTE prophylaxis or have documentation why no VTE prophylaxis was given the day of or the day after hospital admission". Although very-low-risk patients are excluded (children and patients hospitalized for 2 days), the measure does not consider other patients who are unlikely to benefit from VTE prophylaxis or for whom the risk for harm exceeds the likely benefits. We believe that the measure implicitly encourages prophylaxis for all patients. Many hospitals have implemented it for medical patients as an internal quality measure. We believe that this well-intentioned mandate may be causing some low- to moderate-risk patients to receive prophylaxis, wasting resources, and perhaps harming some patients.

Impact Of Value-Based Purchasing (VBP) On Safety-Net And Non-Safety-Net Hospitals, 2014

Impact	Safety-net hospitals	Other hospitals	p value
Hospitals penalized under VBP	63%	51%	<0.001
Hospitals with rate reduction of 0.25% or greater	32	21	<0.001
Hospitals with rate reduction of 0.50% or greater	10	5	<0.001
Hospitals with estimated payment reduction of \$50,000 or greater	28	20	<0.001
Hospitals with estimated payment reduction of \$100,000 or greater	16	10	<0.001
Hospitals with estimated payment reduction of \$250,000 or greater	2	2	0.588
Hospitals gaining under VBP	37	49	<0.001
Hospitals with rate increase of 0.25% or greater	13	21	<0.001
Hospitals with rate increase of 0.50% or greater	3	4	0.220
Hospitals with estimated payment increase of \$50,000 or greater	15	21	<0.001
Hospitals with estimated payment increase of \$100,000 or greater	7	11	<0.001
Hospitals with estimated payment increase of \$250,000 or greater	2	3	0.327
VBP total performance score (mean)	43.9	47.4	<0.001
VBP process score (mean)	56.0	59.9	<0.001
VBP patient experience score (mean)	35.4	42.1	<0.001
VBP mortality (survival) score (mean)	32.1	31.4	0.416

SOURCES Hospital Compare data for 2014 and Medicare impact file for 2014. **NOTES** Sample sizes for safety-net and other hospitals are in Exhibit 1. Chi-square and t-tests were performed to test differences between safety-net hospitals and other hospitals.

Effects of pay for performance in health care: a systematic review of systematic reviews

- **RCTs: “all authors...essentially reached the same conclusion: results are mixed and inconclusive and there is insufficient evidence to support the use of P4P to improve the quality of preventive and chronic care in primary care.”**
- **“Most non-randomized studies showed improvement in selected quality measures. P4P appears to have had a small positive impact on the quality of care for diabetes and asthma, but not for heart disease.”**
- **Cost-effectiveness: “most authors conclude that P4P has the potential to be cost-effective, but that convincing evidence is lacking.”**
- **“First, although many studies have found improvements in selected quality measures and suggested that P4P can potentially be effective, at this point the evidence seems insufficient to recommend widespread implementation of P4P.”**



P4P seems to have been more effective when

- **measures are used that have more room for improvement and are easy to track;**
- **directed at individual physicians or small groups;**
- **rewards are based on providers' absolute performance;**
- **the program is designed collaboratively with providers;**
- **larger payments are used. This is underscored by a recent US study that found that an increase in payments triggered an increase in behavioral response (level II).**



Effect of Public Reporting

The small body of evidence available provides no consistent evidence that the public release of performance data changes consumer behavior or improves care. Evidence that the public release of performance data may have an impact on the behavior of healthcare professionals or organizations is lacking.

Institute of Medicine Definition of Quality

The degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.

desired, *adj.*

View as: [Outline](#) | [Full entry](#)

Text size

Quotations: [Show all](#) |

Pronunciation: /dɪˈzaɪəd/

Etymology: < DESIRE *v.* + -ED *suffix*'.

1. Wished for, longed for, etc.: see the *vb.*

[Thesaurus](#) »

1382 *Bible* (Wycliffite, E.V.) Hag. ii. 8 The desirid to alle folkis shal come.

1440 *Found. St. Bartholomew's* 43 To ʒeue the a ʒeifte of desirid helth.

1611 *Bible* (King James) Psalms cvii. 30 So he bringeth them vnto their desired hauen.

1616 SHAKESPEARE *Cymbeline* (1623) III. v. 62 To her desir'd Posthumus.

1651 LD. ORRERY *Parthenissa* I. i. i. 70 At last the long desired Day appear'd.

1855 T. B. MACAULAY *Hist. Eng.* IV. 266 The long desired title of Elector of Hanover.

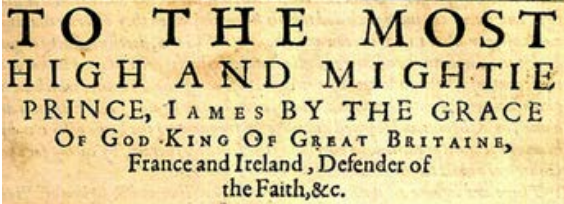
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Oxford English Dictionary Online

Desired Health Outcomes

- Desired by whom?
- Desired with what fervor?
- Desired at what personal and social cost?
- Does the metric directly measure a desired outcome?
- Is the metric a surrogate for a desired outcome?
- Do we all desire the same “patient-centered” outcomes?
- *For we know not what we should pray for as we ought*

Romans 8:26



TO THE MOST
HIGH AND MIGHTIE
PRINCE, JAMES BY THE GRACE
OF GOD KING OF GREAT BRITAIN,
France and Ireland, Defender of
the Faith, &c.

Guidelines & Quality for Sick Old People: P4P?

Table 3. Treatment Regimen Based on Clinical Practice Guidelines for a Hypothetical 79-Year-Old Woman With Hypertension, Diabetes Mellitus, Osteoporosis, Osteoarthritis, and COPD*

Time	Medications†	Other
7:00 AM	Ipratropium metered dose inhaler 70 mg/wk of alendronate	Check feet Sit upright for 30 min on day when alendronate is taken Check blood sugar
8:00 AM	500 mg of calcium and 200 IU of vitamin D 12.5 mg of hydrochlorothiazide 40 mg of lisinopril 10 mg of glyburide 81 mg of aspirin 850 mg of metformin 250 mg of naproxen 20 mg of omeprazole	Eat breakfast 2.4 g/d of sodium 90 mmol/d of potassium Low intake of dietary saturated fat and cholesterol Adequate intake of magnesium and calcium Medical nutrition therapy for diabetes‡ DASH‡
12:00 PM		Eat lunch 2.4 g/d of sodium 90 mmol/d of potassium Low intake of dietary saturated fat and cholesterol Adequate intake of magnesium and calcium Medical nutrition therapy for diabetes‡ DASH‡
1:00 PM	Ipratropium metered dose inhaler 500 mg of calcium and 200 IU of vitamin D	
7:00 PM	Ipratropium metered dose inhaler 850 mg of metformin 500 mg of calcium and 200 IU of vitamin D 40 mg of lovastatin 250 mg of naproxen	Eat dinner 2.4 g/d of sodium 90 mmol/d of potassium Low intake of dietary saturated fat and cholesterol Adequate intake of magnesium and calcium Medical nutrition therapy for diabetes‡ DASH‡
11:00 PM	Ipratropium metered dose inhaler	
As needed	Albuterol metered dose inhaler	

Clinician Tasks

Administer vaccine

Pneumonia

Influenza annually

Check blood pressure at all clinician visits and sometimes at home†

Evaluate self-monitoring of blood glucose

Foot examination at all clinician visits if neuropathy present; otherwise check feet for protective sensation, structure, biomechanics, vascular status, and skin integrity annually

Laboratory tests

Microalbuminuria annually if not already present

Creatinine level and electrolytes at least 1 to 2 times per year

Cholesterol levels annually

Liver function biannually

Glycosylated hemoglobin level biannually to quarterly, depending on level of control

Referrals

Physical therapy

Ophthalmologic examination

Pulmonary rehabilitation

Dual-energy x-ray absorptiometry scan every other year

Patient education

High-risk foot conditions, foot care, and foot wear

Osteoarthritis

COPD medication and delivery system training

Diabetes mellitus

Goodhart's Law

- **"As soon as the government attempts to regulate any particular set of financial assets, these become unreliable as indicators of economic trends."**

≈

- **"When a measure becomes a target, it ceases to be a good measure."**



**Hier war die
Arznei, die
Patienten
starben,
Und niemand
fragte: wer
genas?**

Goethe, Faust I



**Here was the
physic, the
patients died,
And no one
asked: who
recovered?**