Value-Based Health Care: Reconciling Mission and Margin

A HARVARD BUSINESS REVIEW WEBINAR FEATURING ROBERT S. KAPLAN

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OVERVIEW

Recent health care reform efforts have focused on the demand side — improving patients' access to care in an inefficient, fragmented system. But there is enormous potential for improving health care by focusing on the supply side — improving provider's ability to deliver better value through better patient outcomes and lower costs.

Historically, measures of both outcomes and costs have been lacking, but that is changing. The International Consortium for Health Outcomes Measurement (ICOHM) is developing outcomes standards for multiple medical conditions, with outcomes defined in terms that matter to patients. Time-driven activity-based costing (TDABC) enables providers to have accurate patient-level costing information. In combination, outcomes measures and accurate cost data, along with reimbursement models such as bundled payments, can transform health care to a more value-based system.

CONTEXT

Robert S. Kaplan described why value should be the central goal of the health care system, explained what value is and how to measure it, and discussed why accurately measuring costs and changing the payment structure are critical.

KEY TAKEAWAYS

The central goal in health care must be value for patients.

In the United States and other developed countries, increasing health care costs are outstripping the ability to pay for them. Health care costs represent 18% of America's GDP, and as is the case in other developed countries, health care is growing faster than the economy. Various efforts to control health care costs have been limited in scope and effectiveness.

The problem, as described by Michael Porter and Elizabeth Teisberg ("Redefining Competition in Health Care," HBR, June 2004), is that competition in health care has not been based on value. They argued that the central goal of health care must be value for patients — not access, volume, convenience, quality, or cost containment. Value is defined as outcomes divided by costs.

Particularly important is the unit of analysis in measuring value. The proper unit of analysis is the treatment of a patient's medical condition over a complete cycle of care.

> "The unit of analysis for creating and measuring value is the treatment of a patient's medical condition over a complete cycle of care."
>
> Robert S. Kaplan

$$\text{VALUE} = \frac{\text{HEALTH OUTCOMES}}{\text{COSTS OF DELIVERING THOSE OUTCOMES}}$$

The key components of value include:

- **Outcomes.** This should be the full set of patient health outcomes over the complete care cycle. A cycle of care is all steps of treatment for a particular condition or procedure. Take, for example, a hip replacement. The cycle begins with the initial encounter with a physician and includes the diagnosis, pre-surgical care, procedure, rehabilitation, and follow-up care. It is important to define the outcomes that matter to patients.
- **Costs.** The way of thinking about costs is the total costs of resources used to care for a patient's condition over the entire care cycle. (More on costs below).

Creating a value-based health care system requires changes in how care is delivered, measured, and paid for.

In their HBR article "The Strategy That Will Fix Health Care," (October 2013), Michael Porter and Thomas Lee provided recommendations for fixing health care and creating a value-based health system. Kaplan focused on four of these recommendations:

1. Organize multi-disciplinary teams around the patient's medical condition.

Numerous studies have shown that in health care, scale matters. When hospitals and doctors do greater volume of a procedure, outcomes improve and costs decline. However, the delivery of health care in the United States is extremely fragmented. For many types of procedures (like bariatric surgery and breast cancer surgery), many hospitals perform fewer than 10 per year. For these procedures and several others, the number of procedures is below what is considered the "minimum adequate volume."

To create a value-based health care system, it is important to organize multi-disciplinary teams (or Integrated Practice Units) that focus on a specific medical condition. An example comes from Hamburg, Germany, where the Martini Klinik conducts the most prostate surgeries in the world, producing the best outcomes in the world. Martini Klinik:

- **Hire specialized personnel.** The clinic has 9 urological surgeons who only perform prostate surgeries, as well as 39 nurses dedicated to prostate cancer. There are also personnel such as oncologists, psychologists, and social workers who work solely at Martini Klinik.
- **Create dedicated facilities.** There are four dedicated operating rooms built specially for prostate surgeries, as well as other dedicated facilities just for these procedures.
- **Measure patient-centered outcomes.** Martini Klinik began measuring outcomes in 1994, long before electronic medical records, and now has a database on 20,000 patients. Outcomes are measured pre-surgery, at discharge, and 3 months, 12 months, and 2 and 3 years post-discharge. Importantly, in addition to standard health care measures like mortality, infections, and readmissions, Martini Klinik measures the outcomes that matter most to these patients, such as incontinence and erectile dysfunction.

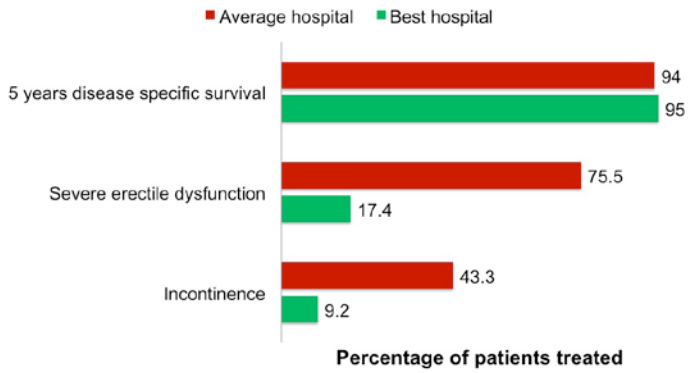


FIGURE 1: MARTINI KLINIK'S OUTCOMES VS. THE AVERAGE GERMAN HOSPITAL

2. Measure and communicate outcomes by medical condition.

Those in health care often say they are measuring outcomes, but often what is measured are process and compliance measures, and not outcomes that matter to patients. Porter has developed a framework (Figure 2) for measuring outcomes. This framework involves measuring health status, the patient experience, and the sustainability of health.

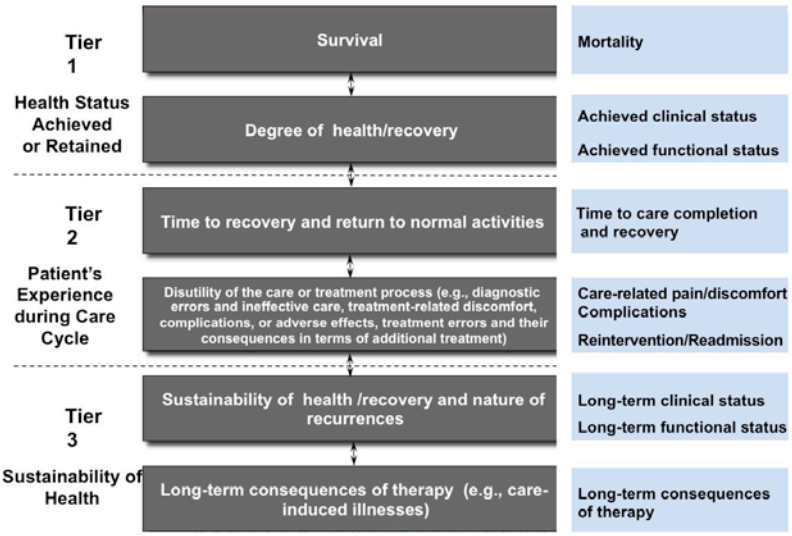


FIGURE 2: FRAMEWORK FOR MEASURING OUTCOMES BY MEDICAL CONDITIONS

"TDABC helps providers manage their costs."

Robert S. Kaplan

Using this framework, the ICHOM is developing outcomes standards for several medical conditions, starting with coronary artery disease, back pain, cataracts, and prostate surgery, and expanding to more conditions over time.

A good tool to view performance against multiple outcomes measures is a radar chart (also called a spider chart), shown below.

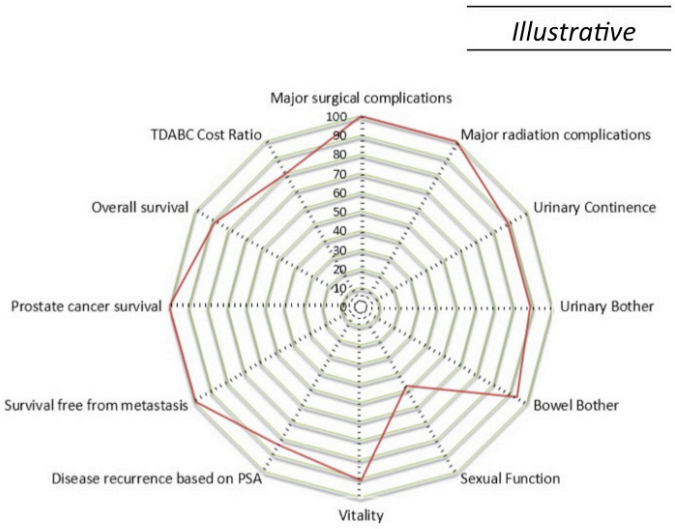
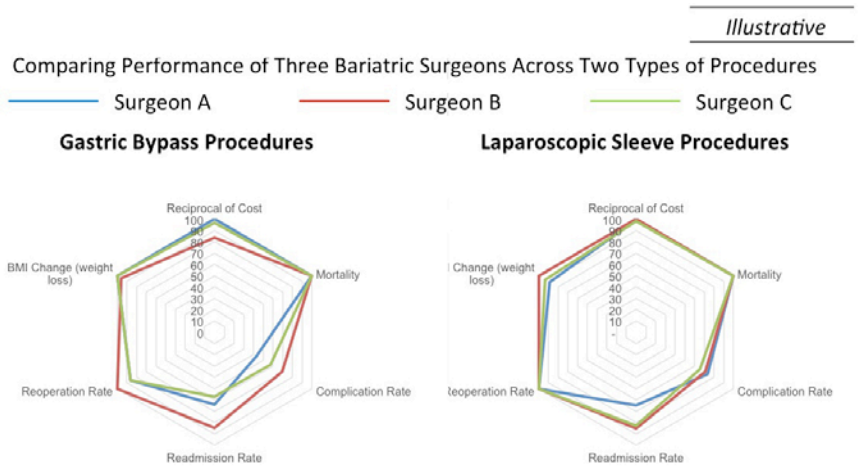


FIGURE 3: EXAMPLE OF RADAR CHART TO DISPLAY OUTCOMES

Radar charts can also be used to compare the outcomes of multiple hospitals or doctors, as differences in outcomes on different measures are easily apparent.



Notes: A score of 100 represents ideal performance on the measure. Reciprocal of cost is a measure of the cost incurred by the provider of the treatment.
Source: Author analysis of data provided by Scottsdale Healthcare (now part of HonorHealth)

FIGURE 4: USE OF RADAR CHARTS TO COMPARE OUTCOMES

3. Measure and improve costs by medical condition.

Historically, poor cost measurement has created a wall between clinicians, who are driven by the mission of caring for patients, and health care administrators, who also prioritize margin and financial viability.

In the health care industry, time-driven activity-based costing enables accurate patient-level costing. TDABC involves three steps:

1. *Determine care processes.* This includes determining exactly:

- What activities are performed over the care cycle for a medical condition?
- Who performs each activity?
- How long does each activity take?

2. *Calculate cost rates*. What is the cost per unit of time for each type of personnel?

3. *Account for consumables.* What materials, supplies, and drugs are consumed during the care cycle?

To **determine care processes,** the best practice is for clinical and administrative teams to work collaboratively to develop a process map, detailing every step in the care process, determining what resources are used at each step, and estimating the amount of time and resources used at each step. In the map shown below, the steps are laid out for one process, the resources involved are identified (by color, see "Staff Key"), and the quantities of each resource are estimated (by circles with numbers).

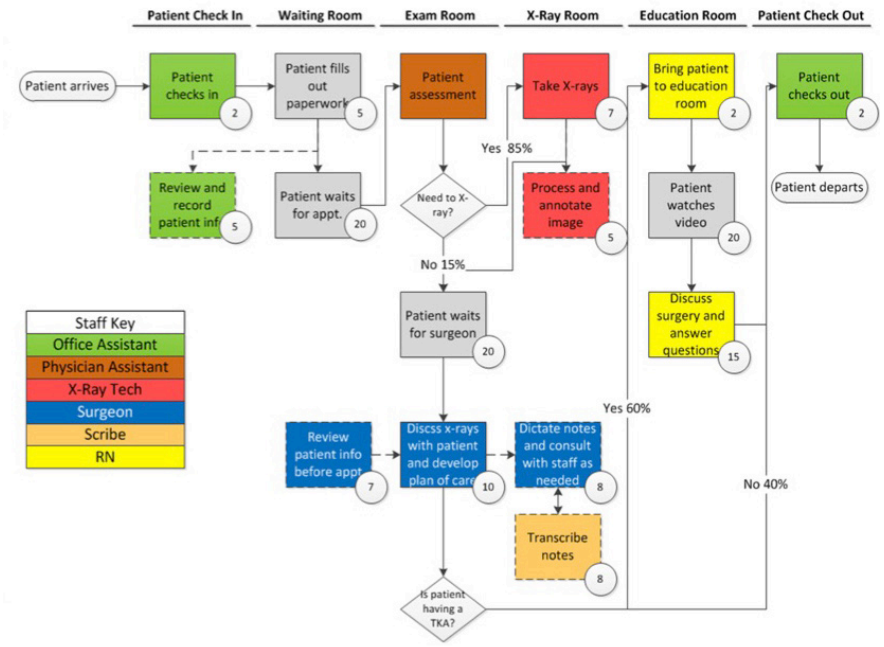


FIGURE 5: CLINICAL PROCESS MAP AND RESOURCES USED

To **calculate cost rates**, it is necessary to determine the total costs for each resource (including salary, benefits, etc.) and the capacity for each resource. Shown below is a calculation of the total cost for various clinical resources, the capacity for each resource (in minutes per year), and the personnel capacity cost rate per minute.

	Surgeon	Physician Assistant	RN	X-Ray Tech	Scribe	Office Assistant
Total Clinical Costs	$546,400	$120,000	$100,000	$64,000	$51,000	$61,000
Personnel Capacity (minutes)	91,086	89,086	89,086	89,086	89,086	89,086
Personnel Capacity Cost Rate	$6.00	$1.35	$1.12	$0.72	$0.57	$0.68

FIGURE 6: EXAMPLE OF CAPACITY COST RATES ($/MINUTE) FOR CLINICAL AND STAFF PERSONNEL

Total patient-level care costs are determined by multiplying the process times by the capacity cost rates. Since the clinicians and administrators work in collaborative fashion, everyone buys into the numbers.

Already, many of the leading health systems in the United States have adopted this type of cost measurement system to better understand their costs. Use of TBABC has shown huge variability between providers and is helping providers identify what is driving costs so costs can be better managed.

4. Develop bundled payments to compensate providers for treating the medical conditions.

Current reimbursement methods of fee for service, global capitation, and global provider budgets are not aligned with delivering value to patients. A bundled payment is the only reimbursement approach aligned with delivering value. Key elements of a value-based bundled payment are:

- A single payment for a treating a patient with a specific medical condition (like a hip replacement) across a full cycle of care.
- The payment is contingent upon achieving good patient outcomes.
- The amount of the payment and the outcome targets are risk stratified by the complexity of a provider's patient population.
- Payment should cover costs of efficient and effective care providers.
- A bundled payment contract should specify limits of responsibility for unrelated care needs and catastrophic events.

Multiple examples exist of integrated practice units that have been reimbursed through bundled payments. It is common that due to focus, expertise, teamwork, and collaboration, outcomes improve, costs decrease, and volume increases.

ABOUT THE SPEAKERS

ROBERT S. KAPLAN
Senior Fellow, Marvin Bower Professor of Leadership Development, Emeritus, Harvard Business School

Bob Kaplan is Senior Fellow and the Marvin Bower Professor of Leadership Development, Emeritus at the Harvard Business School where he has taught for more than 30 years. Kaplan received a B.S. and M.S. in Electrical Engineering from M.I.T., a Ph.D. in Operations Research from Cornell University, and several honorary degrees.

Kaplan has authored or co-authored 14 books and more than 150 papers including 25 in *Harvard Business Review.* He has co-developed both activity-based costing and the Balanced Scorecard, measurement systems that link operations to strategy implementation. For the past six years, he has collaborated with Michael Porter on a major project to improve the value of health care—better patient outcomes at lower costs—delivered.

STEVEN E. PROKESCH
Senior Editor,
Harvard Business Review

Steven E. Prokesch is a senior editor at *Harvard Business Review*, where he acquires and edits articles on a variety of topics, including health care, strategy, operations, and innovation. An award-winning journalist, he has worked as a reporter and editor at *The New York Times*, *Business Week* magazine, and *The Arizona Republic* and also was an editorial director at the Boston Consulting Group.

SPONSOR'S PERSPECTIVE

Going Long On Value

Value-Based Healthcare Starts With Measuring and Improving Long-Term Outcomes

The move toward value-based healthcare starts with standardizing how we think about outcomes and how we measure them.

Currently, the healthcare industry has been focused on measuring short-term medical outcomes: Was the procedure a success? How quickly did the patient leave the hospital? Did he or she have to come back to the hospital for follow-up care?

What's missing are some of the longer-term outcomes that matter most to patients — what is the patient's long-term prognosis? Will the therapy improve the patient's quality of life? How often will the patient need to use healthcare resources going forward? These are the long-term questions we need to be asking and answering collaboratively as our industry moves toward value-based care.

Standardization of outcomes measurement has to begin with collaboration amongst providers, suppliers, physicians, payers and patients on disease-specific outcomes. Collectively, we have to agree on how to systematically measure outcomes for specific disease states and medical conditions.

Once we have established the importance of long-term outcomes and standardized the measurements, then we have the ability to link them to cost of care. The last step — measuring outcomes and tying them to reimbursement — is important, not just for providers and payers, but for the entire healthcare system. We need to know more about how patients' outcomes look across medical technology, pharmaceuticals, and other interventions.

At Medtronic, we define value-based healthcare as an effort to develop and deploy products, services and integrated solutions that improve patient outcomes per dollar spent in the healthcare system by improving the quality of care and/or reducing the associated expense. Most importantly, the value derived from the quality of care isn't determined at a specific point in time that focuses on transactional value. Instead, value should be measured holistically over a longer time horizon and in ways that are meaningful to the patient.

We believe Medtronic has an important role to play in the move toward value-based healthcare. There's an opportunity to build on what we are driven to do every day: leverage the full power of our technologies, services and people to work in collaboration with others to help improve healthcare outcomes around the world.

Learn more about Medtronic's perspective on value-based health-care and ways we can work together to improve outcomes at medtronic.com.

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ABOUT MEDTRONIC

As a global leader in medical technology, services and solutions, Medtronic improves the health and lives of millions of people each year. We believe our deep clinical, therapeutic and economic expertise can help address the complex challenges — such as rising costs, aging populations and the burden of chronic disease — faced by families and healthcare systems today. But no one can do it alone. That's why we're committed to partnering in new ways and developing powerful solutions that deliver better patient outcomes.

We're now among the world's largest medical technology, services and solutions companies, employing more than 85,000 people worldwide, serving physicians, hospitals and patients in nearly 160 countries. Join us in our commitment to take healthcare Further, Together.

Learn more at www.medtronic.com.