Problem and Solution: Limited Measurement of Health Outcomes

Currently, wide variation exists in the outcomes produced by healthcare providers when treating patients for the same medical condition. This wide variation, though documented in peer-reviewed literature, remains hidden to patients, payers, and even most providers. The lack of outcomes measurement leads to four problems.

- Attempts to introduce price transparency without outcomes transparency could trigger a “race to the bottom.”
- Should Medicare coverage be expanded to non-elderly populations, as currently advocated by several Democratic presidential candidates, its much lower reimbursements will create pressure on providers to lower their spending in ways that produce even worse outcomes.
- Even without Medicare expansion, the lack of systematic outcomes measurement has made the migration from fee-for-service to value-based reimbursements, especially bundled payments, less effective and more difficult to implement.
- Hidden variation in outcomes prevents providers from learning from others how to produce better outcomes for their patients.

*Proposed solution*

The solution to this problem is straightforward. Healthcare providers and other stakeholders need to begin the process of measuring and reporting outcomes that matter to patients. Since such outcomes are, in general, condition specific, the process must set priorities for the conditions for initial implementation of mandated outcomes reporting.

**Background: Measuring Healthcare Activity—From Inputs to Outcomes**

*Measuring inputs, processes, and incidence of harm*

Outcomes measurement has made limited progress in the 100+ years since Dr. Ernest Codman advocated that “every hospital should follow every patient it treats, long enough to determine whether or not the treatment has been successful.” [1] Historically, hospitals responded not by measuring outcomes but by measuring the *quality of inputs* used to treat patients. Input measures included the qualifications of physicians, such as board certification, staffing ratios, and types of equipment and operating rooms available. These measures helped to ensure that patients were treated by qualified clinicians at facilities appropriately staffed and equipped for their conditions, but they did not assess the treatments’ success.

During the 1990s, healthcare introduced process metrics, such as checklists that measured *compliance and conformance* to evidence-based treatment protocols. The compliance and process metrics helped to standardize care for patients with similar conditions, and improved patient treatments. But as with input measures, they failed to create transparency and accountability on whether the treatments alleviated or cured the condition that caused patients to seek care.
More recently, with leadership from the Centers for Medicare and Medicaid Services (CMS) and the American College of Surgeons NSQIP (National Surgical Quality Improvement Program), providers have begun to systematically track the condition-specific incidences of harm to patients through safety incidents, medical errors, complications, infections, and readmissions. [2] These “do not harm” metrics helped track and lower the adverse consequences to patients seeking care, and have improved this aspect of care quality.

The next step: Measure outcomes that matter to patients

Input, conformance, process quality, and “do no harm” metrics fall short of Codman’s goal to measure whether the patient’s treatment “has been successful.” After all, patients seek treatment not to have standardized, evidence-based care, or to avoid medical errors, infections, and readmissions. Patients seek care for muscular-skeletal pain to have the pain alleviated and restore their ability to resume normal activities of daily life, including work, exercise, and recreation. Patients who seek treatment for prostate cancer are interested in survival and the duration of remission, and in avoiding adverse side effects such as incontinence, impotence, and bowel disorders.

Outcomes that matter to patients must be measured at the condition level, not at the level of a hospital, health system, health plan, or population. [3] The relevant outcome metrics for patients being treated for prostate cancer are different from those being treated for breast cancer, diabetes, spinal stenosis, or coronary artery disease. Some of the outcomes that matter to patients can be measured clinically, such as strength, range of motion, mobility, and absence of detectable cancerous cells. But many outcome measures must come from the patients themselves.

Patients care the most about outcomes such as functionality, pain, mental health, and ability to return to normal activities. Patient-reported outcomes provide the crucial feedback about whether “the treatment has been successful.” Patient-reported outcomes also give patients the potential to have a voice in their own care and identify progress on the outcomes most important to them. [4]

Unfortunately, measuring condition-specific outcomes has been challenging along several dimensions, which is why it has yet to be done broadly and systematically. Unlike the mass
production of standardized products, such as automobiles or electronic devices, healthcare outcomes depend on patients’ individual circumstances including presenting disease severity, age, obesity, substance use, demographics, socioeconomic status, comorbidities, and adherence. Fortunately, the increased availability of electronic health records and sophisticated data analytics will make it easier to calculate condition- and patient-specific risk-adjustments. As inter-operative data sharing becomes widespread, the risk adjustment can be done using all a patient’s medical, pharmacological, and socioeconomic information.

Nonetheless, while difficult, determining the appropriate risk-adjustments for patient outcomes at the medical condition level has already been accomplished in some conditions. Key examples include treating conditions requiring organ transplants and several types of surgeries. Strikingly, as these outcomes data become publicly available, patient outcomes improve.

The payer for any service, including the government, has the right to receive feedback on the quality and effectiveness of the service it has purchased. Broader and more robust measurement and reporting of outcomes is the most important feedback for those paying for healthcare services.

**Bipartisan Reform Proposal**

We propose that the Congress elected in November 2020 mandate the Centers for Medicare and Medicaid Services to begin requiring outcomes measurement by all providers reimbursed under government Medicare and Medicaid programs. CMS should begin by selecting an initial set of medical conditions for mandatory outcomes reporting to start in calendar year 2023, with optional reporting starting one year earlier.

**Relevant conditions**

The medical conditions for initial reporting should satisfy the following four properties:

1. High current spending for treating the condition. CMS can identify the top 20 or top 50 conditions on which it is currently spending the most and select from that set.
2. Standardized instruments already exist to measure clinical, functional, and patient-reported outcomes for treating the condition. Many high-volume conditions already have
standardized outcomes sets developed by the International Consortium of Health Outcomes Measurement (ICHOM) and medical societies, such as Society of Thoracic Surgeons and American College of Surgeons.

3. Evidence-based pathways are present for successfully treating or mitigating the condition. Measuring outcomes for a condition without evidence-based pathways, such as Alzheimer’s disease, is not likely to yield better patient outcomes. In contrast, as an example, extensive evidence already exists for treating patients with type 2 diabetes.

4. Outcomes measurement will have immediate impact. The improved outcomes from effective treatment of the condition occur within periods measured in months, not years or decades.

Implementation

Implementing this proposal is straightforward. CMS, advised by committees of physicians, other caregivers, payers, patients, and patient advocates, will select the standardized outcomes to be measured for the initial set of conditions. It will, for each condition, select the measurement instruments including patient survey questions, and technology to facilitate the patients’ responses. CMS will, advised by expert clinical committees, develop the preliminary risk adjustments for the condition, enabling the outcomes to be interpreted and compared for patients with similar risk characteristics and across different patient populations.

Benefits of Mandated Outcomes Reporting

Mandating outcomes reporting will substantially improve healthcare practices. The reports will encourage providers and clinicians to take ownership for their results and to manage the patient’s complete cycle of care for chronic and acute care conditions. With transparency and accountability for their outcomes, providers and clinicians will be motivated to align and integrate their care prior to and subsequent to their principal treatment event. In that way, patients would be better prepared for the actual treatment, and providers will help patients become more compliant with their recovery and maintenance of health subsequent to the actual treatment. Providers could also adjust treatment protocols for the social determinants of health that influence successful outcomes.

Four benefits of universal outcomes measurement
1. Improve care delivery. Providers and clinicians will receive actual evidence of the quality of care they deliver and how it compares to others. This will enhance the incentive to organize multi-disciplinary teams to deliver integrated and comprehensive care that improves patient outcomes.

2. Best practices. Best practices, condition-by-condition, could be identified and transferred to those currently delivering poorer outcomes.

3. Transparency. Patients and payers would have far greater transparency when seeking the best providers for treating their condition.

4. Value-based payments. CMS, employers, and private health plans could rapidly implement new reimbursement models, such as outcomes-contingent bundled payments, [5] to pay for treatments of covered conditions.

These benefits will lead to major improvements. Mandated reporting will greatly reduce the currently high variation in patient treatments and outcomes. The convergence to best practices will dramatically improve patient outcome. It will also, through fewer complications, readmissions, and revision treatments, significantly lower society’s total healthcare costs.

_Bipartisan appeal_

Outcomes reporting is not ideological. Transparency and accountability for outcomes is a goal that all citizens, providers, payers, and politicians should care about. It should not depend upon whether the 2020 election yields a Democratic, Republican, or mixed administration.

Market-oriented Republicans believe that competition improves performance—greater value to consumers at lower cost—of companies in any industry. They should welcome the value-based competition stimulated among providers to improve the outcomes that patients receive. Republicans should also value the expanded opportunities for informed consumer and employer choice in how they select providers for treating a specific medical condition.

Democrats want to reduce inequities in the quality of care currently received by low-income, marginalized, and high-risk populations. They should welcome the opportunity to validate that the poor and unemployed are treated by providers who deliver excellent outcomes. When providers improve their outcomes by delivering integrated and accountable care, the effective capacity of the healthcare system expands, allowing greater access at lower cost to currently
disadvantaged populations.

Looking Forward: Mandate Outcomes Reporting
Mandating outcomes-based reporting should be independent of whether the U.S. shifts to some version of a Medicare-for-all funding scheme or maintains the existing public-private system. All payers, whether public or private, will benefit enormously when they receive quantitative data on the outcomes their patients achieve. Universal reporting and measurement of patients’ condition-specific outcomes is the single most important step the U.S. government can take to improve the access, cost, and quality of healthcare delivery.

References


