Value: A Better Measure

For Health Care and Mental Health Services

Thomas H. Pyle

PsychOdyssey Services

Author’s note: A family member, executive, and mental health advocate, Tom Pyle received his M.B.A. from Harvard University and soon will complete an M.S. in Psychiatric Rehabilitation from the University of Medicine and Dentistry of New Jersey. His professional and academic interest is the business, management, and economics of mental health services delivery. Through his consulting firm, PsychOdyssey Services in Princeton, NJ, he also advises families, providers, agencies, and funders on strategies for helping families navigate the maelstrom of mental illness. (See www.psychodyssey.net.)
Abstract

Today, many in government speak not of funding, but of “investing” in public services, programs, and projects. Even some in mental health have adopted such business parlance for public spending. But such usage is not complete unless it includes the predicate such usage implies, namely, “value”. In business, return on investment is based on the creation of value. The same idea can be applied for analyzing more astutely the impact of public funding in health care and mental health services. Value is more than just outcomes. Value is the ratio of outcomes achieved per dollars spent. Outcomes, the ratio’s numerator, are the results from not individual services, but a continuum of care until healing or rehabilitation, adjusted for an individual’s specific conditions and situations. Costs (defined as capacity cost rates), the ratio’s denominator, calculate the specific time spent per service against a particular capacity rate for that service by a simple accounting technique called *time-driven activity-based costing*. The concept of value is a more accurate, transparent, meaningful, and politically justifiable measure of effectiveness and efficiency for public funding (“investments”) in health care and mental health services.
Business-speak about public spending is currently fashionable in government. President Obama often speaks about our country not funding, but “investing in”, education, innovation and infrastructure (Office of the Press Secretary, 2011). At a recent presentation about her department to the New Jersey Mental Health Planning Council (on which I sit), even an assistant county mental health administrator frequently invoked management terms like “investments” and “business models”. Such terms sometimes can make public spending sound more disciplined, effective, and efficient. But their use in this way really ought not to be considered complete unless it includes the predicate that it logically implies, namely, the related business term of “value”. When we invest in CDs, stocks, bonds, real estate, gold, or even pork bellies, we expect a real rate of return from the creation of value. Should we now expect the same from publicly funded “investments” in mental health?

Why not? The concept of value in health care service delivery is a hot topic in management and political circles. The concept is now coming to the fore as well in behavioral health. Mental Health Planning Councils around the country would do well to become familiar with this important concept, even to embrace it. Indeed, once understood, the Councils as guardians of Community Mental Health Block Grant funding around the country might well insist on it.

What is value in health care? Outcomes alone do not constitute value. Value is more than outcomes. Value is an equation defined as health outcomes achieved per dollars spent (Porter & Teisberg, 2006). Outcomes, the numerator in the value equation, are results specific to individual
conditions and treatments and have many facets. *Cost*, the equation’s denominator, refers to the total costs of all combined treatments over the full cycle for a patient’s medical condition, not the cost of individual treatments (Porter, 2010c). The idea of “full cycle” is important here. The true way to measure value is to track a patient’s outcomes and costs over a longer period of time, presumably from the time he or she first enters the care continuum until whenever later he or she is healed (or, in mental health, solidly embarked in a mutually defined and agreed psychiatric rehabilitation to recovery).

Value is patient-focused (or, for mental health, consumer-focused). It is not provider-, agency-, regulator-, or funder-focused. Renowned strategic thinker and Harvard Business School professor Michael E. Porter says that “value tends to be defined by what can be easily measured in our current misaligned structure, rather than what actually matters for patients… Value should be defined around the customer, not the provider… Value is measured by outcomes, not inputs. It is based on results achieved relatives to inputs (or costs) required… The full set of outcomes, adjusted for individual patient circumstances, constitutes the quality of care for a patient… Costs refers to the total costs involved in a patient’s full cycle of care, not just the costs involved in one intervention or care episode” (Porter, 2006b).

The proper unit for measuring value should encompass all services or activities (and their costs) that together determine success in meeting a set of patient needs. Patient outcomes will depend on a sequence of interventions often involving different sites and types of care. Thus the relevant cost of care for determining value is the cost of the full set of interventions together. As we in the psychiatric rehabilitation field know too well, the full set of interventions for individuals with psychiatric disabilities, including psychopharmacological, psychotherapeutic, psychosocial, vocational, residential, and educational, can be very full indeed.
This sequence from which outcomes result is what Porter calls the “chain of causality” (Porter, 2006b). It has four links: 1) pre-existing or initial conditions; 2) processes of care, 3) indicators, and 4) health outcomes. A side link, structure, influences the processes of care. The processes of care in a sense generate another side link, patient compliance, which influences both indicators and outcomes. Graphically, Porter’s chain of causality looks like this:


Current outcome measurements, according to Porter, are either too narrow or too broad. They are too narrow when they focus only on individual providers or interventions over short periods. They are too broad when they focus on department or hospital-wide outcomes (like infection rates). Current outcome measures also do not account for specific risks factors that can affect outcomes differently. Porter asserts that “outcomes must be risk-adjusted or stratified by
patient population base on the salient initial conditions” (Porter, 2006a). In other words, the initial or pre-existing conditions in each patient’s prior history should generate appropriate risk-adjusted weightings to be applied to the calculation of the outcomes of the care regimen undertaken.

Like current outcome measures, current cost measures don’t focus on the right things, either. Costs are not charges or billings (or, in more commercial terms, prices). Costs are all the expenses associated with providing all the services, whether fully charged or not. Also, precise cost determination suffers from two problems: cost aggregation and cost allocation. The fragmentation of current care makes proper aggregation of all costs difficult, while the allocation of costs is too often based on an average service use rather than an individual patient’s actual use of services.

Measuring health care costs has its own special challenges. Health care delivery itself is complex. One patient’s treatment often requires many resources. Care delivery is also highly fragmented and idiosyncratic. Patients with the same condition often follow different paths to recovery. (Indeed, for mental health, the President’s New Freedom Commission explicitly affirmed such individually-centered pathways as a recovery ideal for all with psychiatric disabilities (Substance Abuse and Mental Health Services Administration, 2003)). Despite these difficulties, there is a simple but little used cost-accounting tool to figure the value equation’s denominator of costs, as advanced by another Harvard Business School professor, Robert S. Kaplan.

It is called time-driven, activity-based costing (TDABC) (Kaplan & Porter, 2011). TDACB measures and then compares two things. First, it measures capacity, meaning the quantity of time a patient uses each resource in each care process. Then, it measures rate, as in
“capacity cost rate”, meaning the unit cost (per hour or per minute) for a resource to be available for a patient’s use. (A simple calculation example appears in Kaplan & Porter (2011)).

Multiplying the resource capacity used by the rate for its unit cost of available capacity produces the total—and true—cost of the health care service to an individual patient. With the cost of the patient service (and, thus, the denominator of the value equation) now determined, the value equation of the health care service (outcomes per dollars spent) can be calculated by dividing the cost as determined by TDABC (denominator) into the outcomes (numerator).

The value concept for health care and mental health services measurement may at first seem complicated. But actually it is simple. Value, more than mere outcomes, is a better measure of quality and achievement in health care service delivery. Value is a more precise way to measure the true return on what we once called funding of, but now term “investments” in, the public mental health system. Value is a more meaningful and transparent measure by which to account for public funds entrusted to state mental health departments. And, especially in these very difficult economic times, the value concept makes a much stronger “case” for funding (or, investment) in public mental health to the lords of our state legislatures—and ultimately to their lords, which is to say, we the people.
References


