WHAT COUNTS: MEASURING SYSTEM CHANGE, RETURN ON INVESTMENT AND INDIVIDUAL OUTCOMES

The Challenge

People living with serious mental illnesses are dying 25 year earlier than the rest of the population, in large part due to unmanaged physical health conditions. Addressing this health disparity depends on providing access to effective physical healthcare services and using methods to share information and goal setting across specialty practices. In its *National Wellness Action Plan for People with Mental Illnesses*, the Center for Mental Health Services of the Substance Abuse and Mental Health Services Administration (CMHS/SAMHSA) made a commitment to promote wellness for people with mental illnesses by taking action to prevent and reduce early mortality by 10 years over the next 10 year timeframe. (The National Council, 2009)

An intuitive argument can easily be made for integrated healthcare. "Program and clinical experts agree that the early prevention and treatment of mental disorders will result in decreases in individual suffering, family burden, and medical costs....Additionally, in the context of managed care, the primary care setting is often the point of entry and the gatekeeper for all other care." (Kautz, 2008). Models for implementing integrated healthcare such as Wagner's Chronic Care Model, while complex because of their comprehensive nature, are not complicated. They flow logically. Models such as Accountable Care Organizations seem to come naturally from thinking about payment models and how to measure return on investment (ROI). It is understandable that managing chronic conditions and wellness is best done in a framework larger than the individual interface between one provider and one customer at one time. Integrating behavioral health care into primary care and vice versa makes logical, intuitive sense.

Intuitive is not good enough, though--not for consumers of care, nor for the providers of care, nor for the funders of care. It is not good enough for all of us who truly want to make a difference in the quality of care and ultimately the quality of life not just for those living with a serious and persistent mental health diagnosis and looking at not only a loss of function and quality of life but of years of life, but any consumer of healthcare. All be touched by integrated care and it should be more functional, more holistic, and the hardest of all to prove, more cost efficient.

Assessing the outcomes of an integrated care program needs to be done in an ongoing manner from the beginning of the service and indeed track both process measures and outcome measures. Whether the initiative is quite comprehensive or a cooperation between two distinct providers (the primary care physician and the mental health provider), ways to assess and report and revise outcomes must occur be done in three places. Ongoing assessment of the process of healthcare integration will help identify barriers and resolve problems. How functional is the system and how does it respond to challenges that need to be resolved to meet the outcomes associated with the first category. The system evaluation is only a method to reach the most important and obvious outcomes--consumer outcomes. In short, do consumers "do better" on various self report and quantifiable measures in both their physical and mental health? Do they feel more competent and are they able to exhibit stronger self management skills for their physical and mental conditions and if so, do they apply them? Are there health indicators moving in a positive direction? Finally, the most challenging component to access is return on investment. Cost containment and cost savings will be the ultimate measure of success. If greater health can be achieved with the same or lower

costs, integrated care will become best practice. If costs rise, the model will not be adopted even if health indicators improve. (Unfortunately, it is unlikely that a cost savings may be accomplished due to several factors including generally spiraling healthcare costs; costs savings that cannot be captured by looking only at the systems directly connected to the integrated healthcare initiative; returns on managing a chronic condition tend to show only over an extended time. Funding cycles rarely allow for the extended assessment necessary to show long term outcomes. It may be enough to show cost containment in this time of spiraling healthcare costs.

What the Literature Says

The National Council has written extensively on the necessary components of an integrated healthcare system. These include:

1. Regular screening and registry tracking/outcome measurement at the time of psychiatric visits
2. Medical nurse practitioners/ primary care physicians located in behavioral health
3. A primary care supervising physician
4. An embedded nurse care manager
5. Evidence-based practices to improve the health status of the population with serious mental illnesses
6. Wellness programs (National Council, April 2009).

At a rudimentary level, a simple check-off list that these are present would be a good beginning of assessing the comprehensiveness and/or areas for future expansion of an integrated healthcare model. Assessment of the functionality and utility of these elements might highlight areas that need further development as well as a greater commitment of staff time.

Although it is not within the purview of an individual organization or integrated care initiative to address many of the barriers to funding integrated healthcare across the entire Medicaid and insurance industry, they will obviously need to be addressed and assessed for an initiative to go beyond a “pilot” stage. Seven funding barriers have been identified by SAMSHA which will hinder an implementation. They are:

1. State Medicaid limitations on payments for same-day billing for a physical health and a mental health service/visit;
2. Lack of reimbursement for collaborative care and case management related to mental health services;
3. Absence of reimbursement for services provided by non-physicians, alternative practitioners, and contract practitioners and providers;
4. Medicaid disallowance of reimbursement when primary care practitioners submit bills listing only a mental health diagnosis and corresponding treatment;
5. Level of reimbursement rates in rural and urban settings;
6. Difficulties in getting reimbursement for mental health services in school-based health center settings; and
7. Lack of reimbursement incentives for screening and providing preventive mental health services in primary care settings. (Kautz, 2008)

The recently passed national healthcare reform act, the Affordable Care Act, has mandated that these problems be addressed. However, organizations will have to come up with a stopgap measure to deal with them in the short haul and make plans for dealing with them in the future.

There have been several components that have been identified that are necessary for a positive implementation of an integrated model that are related to the system change itself. As such the status of these indicators should be assessed and enhanced throughout the process. These are:

- Establish accountability or negotiate responsibility since providers throughout the system must understand their role and be willing to accept accountability and share decision making across the system.

- Communication including interpersonal communication between providers and the transfer of clinical data either through electronic medical records or other methods. The data sharing and conferring must occur across providers across different specialty areas to understand fully the needs of their client.

- Facilitate transitions since a fully functional model of integrated healthcare may involve providing onsite care with the same or different providers or across care settings. The system must support and delineate roles, functions, and the nature of care that consumers receive over the span of their condition and lifetime.

- Assess needs and goals across sites and conditions. This takes considerable communication and interaction by providers and consumers.

- Create a proactive plan of care which is managed by the consumer, their loved ones with support and guidance from their providers. Since the decision making is shared, all parties must communicate about gaps, needs, and long term goals.

- Monitor, follow up, and respond to change. Rather than a self contained office visit, health care coordination requires changing and refining the plan based on the needs and changes of the consumer and their needs and concerns. It requires monitoring, information sharing, negotiating and response.

- Support self-management goals. Systems should facilitate the consumers active engagement in their own care and health enhancement. This model is a partnership not a familial relationship and providers should provide education support and linkages to community resources and supports.

- Align resources with patient and population needs. This task requires high level thinking and understanding. To quote AHRQ “Within the health care setting, assess the needs of patients and populations and allocate health care resources according to those needs. At the population level, this includes developing system-level approaches to meet the needs of particular patient populations. At the patient level, it includes assessing the needs of individual patients to determine whether they might benefit from the system-level approach.”

Other things to consider are teamwork, a health care home, and case management services, including disease and medication management components and information technology supports. (AHRQ, December, 2010)

About Individual Outcomes

Creating a well functioning system is a moot point if it doesn't positively impact the consumer. To fully conceptualize an evaluation of patient impacts involves returning to the core reason for considering integrated care--individuals living with a diagnosis of mental illness die an average of 25 years earlier than the rest of the population. The factors that cause this--complications from medications used to treat mental illness, the social, vocational and economic impact of a mental illness diagnosis, the lack of or lack of quality coordination with a primary care provider and/or behavioral health provider, and the myriad of other complications that come from managing life with a serious mental illness--require a multi–layered and interconnected system such as an integrated healthcare approach.

Patients should improve on health outcomes (both behavioral and physical) and quality of life outcomes. Venture Behavioral Health already captures some of these outcomes with their impact measures. Enrolled members should "experience improvement in their quality of life and functionality with a focus on maximizing recovery, self sufficiency and family preservation." (Venture *Annual Report, 2010*). Currently, Venture is testing the use of DLA, CAFAS, or RAP/VRAP scores to capture some of the impacts. These scores could certainly be used as part of the impact measurement although the generation of a control group would be difficult since all Venture customers are receiving a similar quality of care and may have similar descriptive variables.)

Other examples of patient endpoints are offered by AHRQ include:
Emergency room visits

- Hospital readmissions
- Disease-specific hospital admissions
- Mortality
- Disease-specific mortality
- Short-term clinical outcomes (e.g., glycated hemoglobin levels for diabetic patients)
- Functional status (e.g., for congestive heart failure patients)
- Quality of life
- Other patient outcomes (e.g., missed school days for children due to illness)
- Treatment adherence
- Service adherence (e.g., remain in contact with services for mentally ill patients) (AHRQ, December 2010).

Additionally, broad system quality of care indicators that Venture is already measuring should be measured. These include :

- Safety
- Timeliness
- Effectiveness
- Efficiency
- Equity
- Patient-centeredness. (Venture Behavioral Health, Annual Report, 2010).

Similarly health outcomes could be assessed using existing health indicators such as HbA1c, cholesterol, blood pressure, etc. A shared electronic medical record would facilitate these tracking

of outcomes. All of these data points must be tempered with the sad knowledge that even with the best care and the highest level of compliance, most chronic conditions do tend deteriorate over time.

This leads to the final patient impact that should be measured and is not currently--Patient self management skills. All customers should exhibit improved self management skills and show an increase in perceived and demonstrated self efficacy around managing both their mental and physical conditions. Their knowledge, skills and actions could be measured either formally or in a self report method. This is probably not reasonable for a large scale evaluation but efforts to capture it through case studies, focus groups or even provider anecdotes should be made.

About Return on Investment (ROI)

Although the entire process of integrated care is in it's infancy and many areas need to be worked out and solidified, one practical question is simply does the return on investment justify efforts in this area since integrated care does represent a greater effort for the entire systems and a great deal of shared information. Many providers who recognize that although the consumer may attain greater care and more positive outcomes through integrated healthcare also know that their system may not only not directly benefit financially from integrated care, it may actually suffer. Unless the costs and savings are measured and shared across the system, some systems may find that their costs actually increase and/or their profits actually decrease.

It is challenging to measure return on investment in traditional medical care and it is even more challenging to measure this in an integrated model which measures a wider range of outcomes. Return on investment seems nearly impossible to calculate in respect to integration of behavioral health services into the medical practice. It is unlikely that the mental health provider will see their direct service costs go down although they may be able to track a reduction in more expensive care costs such as emergency room visits and inpatient care. It is however quite likely that there will be reductions in cost for medical care and throughout the system as a whole (such as law enforcement, emergency room costs, employer expenses, etc.) This is where the much more involved model of an accountable care organization would be able to capture more of the impact of the initiative.

Currently, the literature is fairly sketchy on the cost offset.

> "...has led to the hypothesis that expanding access to mental health treatment would lead to reductions in use of services and costs for physical health problems, but this so-called "medical cost-offset" has not been demonstrated. Consistent with this finding, although one recent study has shown reduction in costs associated with integrated depression treatment for patients with diabetes, most studies of integrated treatment in primary care settings have shown moderate increases in health costs ranging from $100 to $1,000 per treated patient over 6 to 12 months. From one-quarter to one-half of the additional cost results from increased spending on antidepressants associated with better adherence; the remainder is attributable to the increased number of depression-related visits and telephone contacts. Thus, although integrated treatment strategies have not been shown to reduce costs except in special circumstances, they have consistently been shown to be cost effective relative to usual care, with incremental cost effectiveness ratios well within commonly cited thresholds for adoption of new medical treatment." (AHRQ, 2010).

One meta analysis was able to consistently identify a cost savings for healthcare integration initiatives of between $940 and $3,741. However, these initiatives were quite heterogeneous in their approach and addressed only consumers who were living with depression. This result is difficult to generalize to other conditions and other initiatives. The authors did stress the importance of having explicit protocols and system change as common denominators in showing a positive return on investment. These were necessary to support even the best treatment modalities of behavioral and pharmaceutical treatments (Goetzel, 2005).

Return on investment is most commonly measured by the simple formula of (ROI=(Gains - Costs)/ Costs). Although this may be easy enough to understand in theory, it is more complex when considering the entire system. Providers should accept that a higher quality of care through integration efforts for the same cost is a success. If the initiative expands to capture more organizations such as hospital visits and fewer encounters with law enforcement, it may be possible to measure more information on quality of care and cost savings.

Findings from the Block Grant

There were several findings from the Block Grant:

- Behavioral Health providers routinely use documentation, process, and proxy measures to track efforts—but NOT necessarily improvement in clinical or medical/health status
- There are limited provider profiles or performance dashboards that give continuing feedback to improve (or even give information) on holistic outcome measurements
- There was little ownership by behavioral health providers of physical health status indicators; this has changed by the end of the Project.
- Behavioral Health does not use or respond to the HEDIS data central to Medicaid Health Plans, FQHCs, and physical health providers
- New tracking protocols (and trainings) were necessary to ensure that routine biometric indicators were tracked for other than non-psychiatric reasons. Such tracking is now routinely noted, reported, and followed up on
- At the start of the Project there was little information flow between primary care and behavioral health. At the end of the Project there was significant and regular reporting of changes in health status and biometrics in a bi-directional manner
- What has become clear is the need to develop Patient Registry information resources to ensure adequate evaluation of patient adherence to health protocols for specific chronic conditions. Behavioral health is not using such registries on a regular basis
- Evaluation of care will require close coordination with and access to the data sources managed by State of Michigan Medical Services Administration (MSA), the Medicaid Health Plans, the FQHCs serving shared BH customers, and other Medicaid providers.

The State of Michigan might consider a Colorado-like solution which makes all encounter, diagnostic, and demographic data available to Medicaid providers.

- The Project agreed to participate in the *Multi-Site Evaluation Study of Integrated Healthcare* conducted by the Flinn Foundation.

Recommendations

- Consider the role evaluation will play from the onset of any integrated care coordination effort. If the care initiative is already in progress, advocate that the adopt process and outcome (endpoint) evaluation methods adopted immediately.

- Assess barriers to funding and plan for methods to address them. Track progress towards reaching those goals.

- Develop a framework for the system change required for integrated health and assess progress in a regular and ongoing manner. Utilize process information to refine the process and proactively address system problems.

- Select endpoint and outcome for the consumer. Select appropriate tools for these outcomes and address shared medical record issues so that medical outcomes can be collected as well. Also collect consumer satisfaction measures.

- Collect cost data in an ongoing manner and assign dollar amounts to outcomes so that return on investment can be tracked in at least a rudimentary way.

- Finally proceed carefully with reasonable expectations. Systems change is an arduous process which is often impacted by happenings and people which are only ancillary to the process. Consumer outcomes are hampered by self report inaccuracy, missing data and competing agendas. Return on investment measures in the social services arena are not able to fully capture the “ripple” effects of improved service on many other members of the community system.

Select Reading

AHRQ Publication No. 11-0023-EF, Care Coordination Atlas, December 2010

AHRQ Publication No. 10-0084-EF, Integrating Mental Health and Substance Use Services Into the Patient Centered Medical Home, June 2010

References

AHRQ Publication No. 11-0023-EF, Care Coordination Atlas, December 2010

AHRQ Publication No. 10-0084-EF, Integrating Mental Health and Substance Use Services Into the Patient Centered Medical Home, June 2010

Gallo, Joseph J., Zubritsky, Cynthia, Maxwell, James, Nazar, Michael, Bogner, Hillary, Quijan, Louise, Syropoulos, Cheal, Karen, Chen, Hongtu, Sanchz, Herman, Dodson, John, Levkoff, Sue, Primary Care Clinicians Evaluate Integrated and Referral Models of Behavioral Health Care For Older Adults: Results From a Multisite Effectiveness Trial (PRISM-E), Annals of Family Medicine, July, 2004

Gilbody, Simon, Whitty, Paula, Grimshaw, Jeremy, Thomas, Ruth
Educational and Organizational Interventions to Improve the Management of Depression in Primary Care, Journal of the American Medical Association, 289 (23), 2003

Goetzel, Ron, Ozminkowski, Ronald, Villiagra, Victor, Duffy, Jennifer, Return on investment in disease management: a review, Health Care Financing Review (2005)
Volume: 26, Issue: 4, Pages: 1-19

Kautz, C., Mauch, D., & Smith, S. A. Reimbursement of mental health services in primary care settings (HHS Pub. No. SMA-08-4324). Rockville, MD: Center for Mental Health Services, Substance Abuse and Mental Health Services Administration, 2008.

National Council for Community Behavioral Healthcare, Behavioral Health/Primary Care Integration and the Person Centered Healthcare Home, April, 2009

National Council for Community Behavioral Healthcare, Partnering with Health Homes and Accountable Care Organizations, January, 2011

Venture Behavioral Health Annual Report, 2010, Retrieved May 11, 2011 http://www.venturebh.org/GetDoc.aspx?type=doc&id=16

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