HDI Connect: Supporting a Higher Standard of Behavioral Health Care

Supporting the Triple Aim

The Patient Protection and Affordable Care Act (PPACA) is a driving force in healthcare service delivery and reimbursement reform. PPACA contains provisions specific to collecting and tracking healthcare quality data and outcomes. These provisions intertwine with the Triple Aim,[1] a widely adopted reform model that includes (1) enhancing the patient experience, (2) reducing per capita costs and (3) conducting population health management to better manage high risk groups. PPACA also includes financial incentives for integrated health systems to become designated as Accountable Care Organizations (ACOs), which are federally provisioned to better meet the Triple Aim. ACOs must collect quality data and demonstrate improved outcomes across the care of continuum, hence there is a growing need for high quality mental and behavioral data.

Healthcare professionals need quality assessments and outcomes measures that can contribute to achieving the Triple Aim goals. The Health Dynamics Inventory Connect (HDI Connect) has been developed to respond to this need.

Quality Healthcare Demands the Best Available Information

Historically, mental or behavioral health assessment tools[*] have been cursory, misguided, or underused. Instead of true treatment outcomes, these assessment tools often focused on complex personality questions, patient satisfaction or the number of services the patient used. The results did not necessarily contribute to improved quality, reduced costs or better population health understanding. In fact, patient satisfaction tools may actually result in inflated costs as providers try to improve their patient satisfaction scores by increasing the number of services provided and accommodating patient requests for costly but unnecessary services.[2] Patients and providers need tools that are able to provide meaningful objective health status scores over time. They also need standardized tools that enable providers to make generalized comparisons between the patient and a similar group of nonpatients.

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[*] Behavioral health care includes care for patients concerning mental health and substance abuse conditions, health behavior change, life stresses and crises, and stress-related physical symptoms, as often practiced in integrated care settings.

Well-designed quality measurement tools support the Triple Aim and PPACA goals in a variety of ways. One type of quality measure relies on *patient reported outcomes measures* or PROMs. PROMs tools have become more useful, less expensive, and easier to use thanks to web-based administration and integration with electronic health records. They offer insight into each patient, maximizing effectiveness and minimizing cost. They support supervision, shared clinical decision-making and quality improvement. They present objective data to signal when problems are in remission and when treatment can change or stop. Treatment becomes more efficient when clinicians use PROMs to assess health status, validate diagnoses, plan interventions, and track results. PROMs that cover multiple clinical issues of concern are more efficient and valuable. From the mental health treatment point of view, PROMs can reduce the gap between patient and clinician in different therapeutic areas. PROMs also enable the provider to identify the most suitable treatment for an individual patient, meet his or her needs and preferences, and adapt the therapy over time to the changes in medical symptoms or condition.[3]

PROMs can be particularly helpful for non-specialists. Primary care providers (PCPs) now furnish half of all mental health treatment in the U.S.,[4] but have limits to their time, training, and resources that shape their responses to mental or behavioral health risks. These providers still make important treatment decisions, so it is crucial that they are supported appropriately, and can communicate comprehensive data to their fellow providers in any shared case. Information from PROMs can help them recognize problems, design interventions, and know when to refer for specialty care. PROMs also can be integrated as clinical decision support systems (CDSS) to make strategic decisions about care. Particularly when supported by computerized information, these PROMs can guide clinicians' choices, reduce errors, and increase sensitivity to problems.[5] They can increase the use of evidence-based care.[6] All providers make better decisions when their judgment and treatments are supported by quality information.

Behavioral and physical health care differ in a unique way. Lab tests and other objective measures of health and illness are expected and integrated into internal medicine and general practice. Remarkably, behavioral healthcare has historically not used such information. Instead, behavioral health specialists have made minimally standardized text notes that are not easily quantified. Payers and patients alike legitimately seek to avoid expensive and unnecessary tests. To them, the most valuable tests are reliable, valid, and inexpensive. The HDI Connect is the behavioral health analogue to lab tests and measures of other fields. It can alert to risks, focus treatment plans, set a baseline for comparison, track benefits from treatments, and signal when treatment is not effective and needs to be changed. The HDI Connect is a reliable, valid, and efficient tool to bring behavioral healthcare in line with other fields.

The Public Health Benefit

Physical and psychological health problems commonly co-occur and complicate recovery to health. For example, approximately one fifth of heart attack patients suffer from major

depression, which roughly triples the risk of dying from a future heart attack.[7] Heart disease is itself predicted by trauma and PTSD.[8] Clinically depressed patients may be three times more likely than non-depressed patients to exhibit noncompliance with treatment regimen or recommendations.[9] The National Institute of Mental Health documents that mental and behavioral disorders affect tens of millions of people in the U.S. each year, yet only a fraction of these receive treatment.[10] Mental and behavioral health disorders often limit access to, or reduce the effectiveness of preventive services and chronic disease management. They also complicate help-seeking, diagnosis, and treatment.[11]

Primary care providers can't find a biological cause in a significant proportion of patients who report fatigue, abdominal pain, and back pain.[12] They need timely and accurate assessment of mental health pathology to make decisions about treatment. PROMs provide routine, empirical information describing mental and behavioral health, comparable to routine blood tests during primary care visits. The HDI Connect can be understood by all the providers in a person's care, and help shape the individual's integrated care.

Further Benefits of PROMs

Mental and behavioral health problems can seem elusive to measure and define. Systematic use of PROMs can:

- give patients a chance to organize their own thoughts and feelings before the clinical visit
- give the clinician information to explore further in an interview
- collect and record information, allowing the clinician more time to listen to the patient
- capture more of the range of problems and co-occurring disorders
- demonstrate the clinician's intent to be thorough and comprehensive
- benchmark heath status for future comparison
- compare the patient to a normative sample
- allow triage of workforce effort
- support data-rich referral, and
- support effectiveness research on individual, practice, and system levels

Evolving Standards of Care

While the traditional method of interviewing patients is essential to behavioral healthcare, it is not sufficient. Adding objective assessment with PROMs provides more accurate and specific diagnoses and treating planning. The American Psychiatric Association's Diagnostic and Statistical Manual (DSM) has shaped diagnostic classification based on categories of signs and symptoms since the publication of DSM III in 1980. Using descriptions that allowed greater reliability of diagnosis, DSM has given clinicians a common language. Measuring the intensity or

frequency of symptoms has improved diagnostic agreement and benefits research and treatments. Even so, there is a lack of consistency in psychiatric diagnosis.[13]

DSM-5 is the first edition of the diagnostic system to endorse the concept of PROMs. It recommended use of scales to measure distress, symptoms, and functioning, and offered examples such as the WHODAS-2 and "cross-cutting" (broadband) measures to ensure that co-occurring illnesses would be recognized and provided a response.[14] The PHQ-9, which provides a quantified estimate of depression symptoms, is another common example. This has contributed to more consistent diagnoses by inviting written patient information and assigning numerical values that serve as guideposts for treatment decisions. Unlike single-purpose instruments like the PHQ-9 or WHODAS-2, all three elements of the recommended concepts for diagnosis of mental disorder in DSM-5 (distress, symptoms, and functioning) are integrated into the HDI Connect.

Outcomes collection is a burden to providers unless the outcomes of treatment are truly the focus of clinical care. At the point that fee for service billable units are no longer as important as the results of the treatment, systems of care both expect and support outcomes data collection, and providers see collecting the information on their patients as a worthy effort.[15]

Prevalence of Spectrum and Co-occurring Disorders

PROMs help clinicians and patients understand the complexity of mental health. People often have more than one diagnosable condition, and the conditions themselves are increasingly seen as dimensional rather than categorical.[16] In addition, both traditional mental health disorders and addictive disorders occur on a spectrum from absent to severe, in the course of a care episode or a lifetime, and may have a greater or lesser effect on the person's functioning. Insight into the current level of severity, and of the combinations of different elements of disorders and illnesses, can shape referral and treatment selection. A PROM has most utility when it helps patients express, and clinicians recognize relevant problems in a single, integrated tool.
There are empirically supported benefits to using well-designed PROM instruments.[17] However, many of these tools, such as the PHQ 9, are narrowly focused. They can miss co-occurring disorders that complicate recovery. A clinician may need to use several brief PROM instruments to get an adequate picture of the typical patient, complicating the task for both patient and clinician. Clinicians can become overburdened as they interpret, explain, and record results for several non-automated PROMs. The HDI-Connect offers an integrated, standardized, and automated PROM measure of the spectrum expression of important co-occurring disorders. The data from HDI connect can then be easily communicated to other healthcare providers to give thorough, comprehensive care.

Is Diagnosis Irrelevant?

Given the limited time available for diagnosis, and the modal treatment of stimulants for disruptive children, antidepressant medications for mood problems, and anxiolytics for distress and anxiety problems, PROMs are clinically expedient tools that signal one or more of these problems and then alert the prescriber to recommend the pertinent medication. Some disorders are neglected in these conditions,[18] and each ad hoc scale to screen or measure for the frequent co-occurring disorders adds more fragmentation. Diagnosis remains the essential key to defining the nature of a problem, shaping treatment, and communicating with patients and other providers.[19] As treatments work to resolve specific as well as generic problems, diagnosis remains a relevant part of behavioral health care, and a broadband PROM offers a consistent view of problems and recovery.

Patient Engagement in Recovery

Improving the patient's care experience is at the center of quality care improvement. Patients experience engagement and trust when an attentive clinician has them describe current concerns. Meaningful feedback often increases the energy and hopefulness a client needs for recovery. Patients also are more satisfied with comprehensive assessments. Each of these factors has a significant effect on the client-provider relationship. They shape selection of providers, increase alliance, and allow a common definition of goals for treatment and health improvement. In addition, providers can only demonstrate the empathy essential for care and patient satisfaction when they understand the perspectives of their patients. The HDI Connect offers an opportunity for patients and providers to communicate about difficult subjects with ease and accuracy.

Supporting Informed Referrals

As value-based healthcare replaces fee for service care, it is important to get patients to the right provider for preventable or time-sensitive problems. Primary care is intended to ensure holistic, rapid, and accurate triage. Broader assessment that guides accurate, timely intervention and referral is essential. HDI Connect summary graphs facilitate ease of communication across providers.

Stepped Care Sequence of Interventions

Efficient use of limited resources requires the right treatment by the right provider in the right amount. Stepped Care is the initial trial of lower-level interventions to failure prior to more intensive interventions. However, in many cases a higher level of care should be implemented immediately, rather than waiting for an initial intervention to fail. Effective assessment minimizes incorrect assumptions and accelerates the client along the path to success. It does this by

recommending an intervention likely to provide immediate relief. Then it measures the patient's response to each level intervention to guide the next appropriate step. Clinicians can use the HDI Connect results to target the most appropriate level of care.

Telehealth Needs Information

The rapidly expanding field of Telehealth will benefit from broadband PROM resources. Telehealth providers have less direct contact with patients and benefit from the additional information provided by PROM data. Patients can instantly give them information ahead of a visit by responding to a PROM tool. Easily administered PROM measures will allow telehealth prescribers and therapists alike to evaluate patient needs and responses to interventions. The HDI can give immediate web-based results for remote interactions.

Why is HDI Connect the right measure for the current times?

The HDI Connect has been designed from the ground up to respond to contemporary concerns in behavioral health. The HDI Connect addresses all three Triple Aim goals: quality, patient satisfaction, and containment of costs. It is a standardized, well-researched, established patient-reported outcomes measure with many distinct advantages.

The HDI Connect:
- covers a broad range of mental health and wellness areas
- is easily integrated into an existing electronic health record
- is conveniently administered without paper or hand scoring
- engages patients in their health recovery
- improves the doctor-patient and provider-client relationship
- has built-in tools to assess diagnosis and treatment progress over time, making it ideal for quality improvement programs
- offers diagnostic support, treatment planning, and analytics
- qualifies for a range of reimbursements

The PPACA mandates that all healthcare providers and payers work toward the Triple Aim, and providers themselves aspire to this. Research has clearly established that outcomes measures help accomplish the Triple Aim. It is also clear that there are some common barriers to use of PROMs to reach those Triple Aim goals. The most frequent barriers are lack of provider and patient access to relevant and meaningful assessment tools, and the added costs to providers and patients. The HDI Connect is designed to overcome these barriers, and allow providers and patients to succeed in working toward health.

References

[1] Berwick, D.M., Nolan, T., & Whittington, J. (2008). The triple aim: care, health and cost. *Health Affairs; vol 27(3): 759-769.*

[2] Fenton, J.J., Jerant, A. F., Bertakis, K.D., & Franks, P. (2012). The cost of satisfaction: A national study of patient satisfaction, health care utilization, expenditures, and mortality. *Archives of Internal Medicine*; *172* (5):405-411. doi:10.1001/archinternmed.2011.1662. Retrieved from http://archinte.jamanetwork.com/article.aspx?articleid=1108766

[3] Gallingani, F., Piccinni, C., et al. (2015). The key role of patient in the antipsychotic therapy: shared decision making, adherence and research. *Recent Progress in Medicine.* Nov; 106(11):551-63.

[4] Kessler, R. (2006) Identifying and screening for comorbid psychological and medical disorders in medical settings. Journal of Clinical Psychology. 65(3): 253-267. DOI: 10.1002/jclp 20546

[5] Berner, Eta S. (2009). Clinical decision support systems: State of the art. AHRQ Publication No. 09-0069-EF. Rockville, Maryland: Agency for Healthcare Research and Quality. Retrieved from http://healthit.ahrq.gov/sites/default/files/docs/page/09-0069-EF_1.pdf

[6] Sim, I., Gorman, P., Greenes, R.A., Haynes, R.B., Kaplan, B., Lehmann, H., & Tang, P.C. (2001). Clinical decision support systems for the practice of evidence-based medicine. *Journal of the American Medical Association. 8*(6): 527-534. Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC130063/

[7] American Hospital Association. (January, 2012). Bringing behavioral health into the care continuum: Opportunities to improve quality, costs and outcomes. *American Hospital Association.* Retrieved from www.aha.org

[8] Sumner, J.A., Kubzansky, L.D., Elkind, M.S.V., Roberts, A.L., Agnew-Blais, J. Chen, Q., Cerdá, M., Rexrode, K.M., Rich-Edwards, J.W., Spiegelman, D., Suglia, S.F., Rimm, E.B., Koenen, K.C. (2015) Trauma exposure and posttraumatic stress disorder symptoms predict onset of cardiovascular events in women. *Circulation*. Retrieved from http://circ.ahajournals.org/

[9] Dimatteo, M.R., Lepper, H.S., & Croghan, T.W. (2000). Depression as a risk factor for noncompliance with medical treatment: Meta-analysis of the effects of anxiety and depression on patient adherence. *Archives of Internal Medicine: vol. 160; pp. 2101-2107.*

[10] National Institute of Mental Health. (2014). NIH National Health Statistics Retrieved from http://www.nimh.nih.gov/statistics/index.shtm

[11] Prince, M., Patel, V., Saxena, S., Maj, M., Maselko, J., Phillips, M.R., & Rahman, A. (2007). No health without mental health. *Lancet. Sep* 8;370;859-77

[12] Agency for Health Care Quality & Research. (2012). Research activities: Experts call for integrating mental health services into primary care: no. 277. Retrieved from http://www.ahrq.gov/news/newsletters/research-activities/jan12/0112RA1.html

[13] Aboraya, A. (2007) The reliability of psychiatric diagnoses. *Psychiatry (Edgemont). 4(1): 22-25.* Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2922387/

[14] American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th Ed.) Washington D.C.: Author.

[15] Slade, F.M. (2002). What outcomes to measure in routine mental health services, and how to assess them: A systematic review. Australian and New Zealand Journal of Psychiatry; 36:743-753. Retrieved from http://www.atsu.edu/research/pdfs/mental_hlth_outcomes.pdf

[16] American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th Ed.) Washington D.C.: Author.

[17] Gask, L., Dowrick, C., Fortes, S., Katerndahl, D.A., Gureje, O., Klinkman, M.S., Aroll, B., Saeed, K., & deGruy, F. (2012) Capturing complexity: The case for a new classification system for mental disorders in primary care. In: Public Health Aspects of Diagnosis and Classification of Mental and Behavioral Disorders: Refining the Research Agenda for DSM-5 and ICD-11. 71-104. Saxena, S., Esparza, P., Regier, D.A., Sarceno, B. & Satorius, N. (eds.) American Psychiatric Association, Washington D.C.

[18] Patel V, Belkin GS, Chockalingam A, Cooper J, Saxena S, Unützer J (2013) Grand Challenges: Integrating Mental Health Services into Priority Health Care Platforms. *PLoS Med* 10(5): e1001448. doi:10.1371/journal.pmed.1001448

[19] Cradock, N. & Mynors-Wallace, L. (2014). Psychiatric diagnosis: Impersonal, imperfect, and important. *The British Journal of Psychiatry.* 204, 93-95. doi: 10.1192/bjp.bp.113.133090