

Digital Behavioral Health:

The First Digitally Forward Service Line?



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The behavioral health crisis in the United States has only worsened with the pandemic. What role should digital behavioral health (DBH) solutions play in expanding much-needed access to behavioral health services?

Last year we published a [whitepaper](#) in which we posited that DBH was one of many new care models that improves quality and access to care.¹ The pandemic has helped us understand that DBH has a mission-critical, foundational role in an organization's behavioral health strategy. Managing behavioral health conditions is increasingly important, not only because of the prevalence of these conditions but also because they significantly increase the overall cost of care.

Organizations can't have a *comprehensive health strategy* without a *behavioral health strategy* — and they can't have a *high-impact behavioral health strategy* without a *digital behavioral health strategy*.

IN THIS PAPER, we use the term "digital behavioral health" to describe a wide range of virtual solutions to treat mental illness and substance use disorders. While there are literally thousands of DBH applications and scores of vendors, DBH solutions serve three general functions:

1. A platform that bridges the geographic gap connecting patients with providers or providers with providers, including either a health system's own providers or a vendor's network.
2. Tools to support behavioral health specialists in diagnosing or treating behavioral health conditions (e.g., online depression screening, internet cognitive-behavioral therapy (iCBT), interactive educational content).
3. Standalone programs that do not require direct clinician oversight, ranging from wellness apps (e.g., mindfulness) to the management of specific behavioral health conditions.

DBH solutions represent a transformational approach to addressing one of the most difficult challenges facing healthcare organizations: improving access to behavioral healthcare. DBH expands options for offering diagnosis, treatment, and support services without the limitations of exam room availability and specialist coverage across physical sites of care. The heart of this transformation is a decoupling of the sites of care (the "physical capital") from the requisite clinical expertise to deliver high-quality behavioral healthcare (the "intellectual capital"). The possibilities of care are now defined by how provider organizations deploy the available array of digital solutions across the spectrum of behavioral care needs.



This is the first of two papers looking at the value of DBH solutions. In this paper, we explain what investing in DBH can achieve. In the second paper, we will address the practical considerations of how to implement a digital behavioral health strategy.

Further insights to apply: The components of DBH are not limited to behavioral health applications — they have the potential to extend to cardiovascular care, musculoskeletal care, neurological care, and a range of other specialties. We discuss this in greater detail in a [related series of articles](#). But for organizations embarking upon the journey of sustaining and growing their virtual care programs, behavioral health can be an ideal area of focus.

FINANCIAL SUSTAINABILITY REQUIRES ATTENTION TO BEHAVIORAL HEALTH

Behavioral health conditions are a huge driver of morbidity and healthcare costs — and this is trending upward with the pandemic.

- **Behavioral health conditions are widespread and becoming more prevalent.** Each year, 20 percent of the population suffers a mental illness or substance use disorder.² Over the course of a lifetime, these conditions will impact almost half of the U.S. population.³ These sobering statistics have worsened significantly during the pandemic, which has added fuel to an already burning platform. In a recent study, 40 percent of those surveyed stated that they had anxiety and depression.⁴
- **The pandemic has also had a profound negative impact on the mental health of frontline healthcare workers.** In addition to worrying about virus exposure for themselves and their family members, these workers are facing significant changes in workload demands — placing them at increased risk for burnout, a growing problem that preceded the pandemic.⁵
- **Healthcare systems struggle to provide behavioral healthcare to everyone who needs it.** In its annual national and state-based surveys, the Substance Abuse and Mental Health Services Administration (SAMHSA) consistently finds that more than 50 percent of individuals do not receive adequate treatment.⁶ This can be attributed to a variety of factors, including historically poor reimbursement, inadequate supply of providers (particularly for patients who are uninsured or under-insured to pay for services or who are in underserved areas), and the stigma of receiving care. In fact, it is estimated that the increased demand for behavioral health services due to the pandemic could greatly exceed that for care of medical conditions.

There is an important **business case to be made** for investing in behavioral health. However, the rationale will differ depending on the level of financial risk.

- **For risk-bearing entities (e.g., health plans and healthcare organizations with risk-based payor contracts), behavioral health programs can improve their bottom line by reducing the total cost of care.** Given that most large health systems are also self-insured employers, providing behavioral health support for employees also confers financial benefit. In addition to the direct costs incurred by employees with behavioral health conditions (e.g., hospitalization, outpatient therapy, and medication), there is also the cost of disability, absenteeism, and presenteeism (not being fully productive while at work). The American Heart Association CEO Roundtable commissioned a report that looked at the impact of behavioral health conditions in the workplace and effectiveness of treatment. The report noted that many evidence-based treatments could save employers \$2 to \$4 for every \$1 invested.⁷
- **For health systems, behavioral health programs can generate a positive financial margin in a fee-for-service environment.** There is significant evidence that medical and surgical patients in acute care hospitals with behavioral health comorbidities have longer lengths of stay than patients without comorbidities. Many studies have also demonstrated that the implementation of proactive consult-liaison programs can be effective in reducing that difference.⁸ For hospitals near capacity and feeling mounting margin pressures, this could generate revenue by creating and backfilling extra capacity. For one recent client, we estimated that conservatively reducing 10 to 15 percent of the total difference in length of stay through the implementation of a proactive program virtually would generate \$200,000 to \$600,000 of net margin annually.

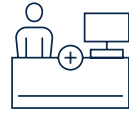
Also, many primary care practices have been financially successful using the new Centers for Medicare & Medicaid Services collaborative care codes to support the infrastructure required to deliver integrated behavioral health services. Depending upon the payor mix, reimbursement rates, and patient selection, a wide range of inpatient, procedural (e.g., electroconvulsive therapy and transcranial magnetic stimulation), and outpatient services can generate a positive margin as well.

BEHAVIORAL HEALTH CONDITIONS HAVE A SERIOUS FINANCIAL COST



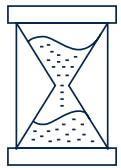
2-3X

Patients with chronic medical conditions have two to three times higher medical costs if they have a comorbid behavioral health condition⁹



17% vs. 6%

The difference in readmission rates in Massachusetts between patients with and without comorbid behavioral health conditions¹⁰



MOST YEARS LOST

Mental disorders account for the greatest number of disability-adjusted years lost compared with other major conditions, including cardiovascular disease and cancer¹¹



\$38-\$68 BILLION

Potential savings estimated annually through the use of effective integrated behavioral health programs¹²

DBH IS WORKING FOR PHYSICIANS AND PATIENTS


For many of the most common behavioral health conditions, evidence has long shown that care using DBH solutions is equally or more effective than traditional, non-virtual care.¹³ Although DBH solutions have been available for many years, increasingly sophisticated web- and app-based solutions supported by substantial private and public funding and research evaluation are making these solutions even more accessible for a wide range of diagnoses and patient populations.

- **Behavioral health services are now widely delivered virtually.** The pandemic was a natural experiment that demonstrated how rapidly DBH could be deployed to meet the demand for services. A study from the American Psychiatry Association noted that 85 percent of psychiatrists were seeing more than three-quarters of their patients virtually (i.e., a live telephonic or video visit between a patient and a behavioral health provider)¹⁴ — which is notably high, even amidst a significant uptick in telehealth adoption across all major medical and surgical specialties. Interestingly, many practices have reported a dramatic decrease in appointment no-show rates, likely due to the ease of keeping appointments (e.g., no travel) and lessened stigma associated with going in-person to a behavioral health appointment.


This dramatic adoption was facilitated by reduced federal regulatory restrictions, including expansion of the types of technology providers could use without incurring HIPAA violation, payment for telehealth sessions (including parity between in-person and virtual encounters), interstate licensure agreements, and allowing patients to receive virtual services in their homes rather than an office.

- **One of the most exciting developments over the past several years has been the proliferation and maturation of DBH solutions for providers, patients, payors, and employers.** The first half of 2020 alone saw nearly \$600 million in venture funding for behavioral health,¹⁵ adding to the array of more than 10,000 behavioral health applications and solutions.¹⁶ The increase in adoption has been accompanied by the accelerated maturation of digital solutions targeting mood, developmental, substance use, and other disorders.


- **DBH solutions can help address an important societal challenge: reducing healthcare disparities.** Behavioral health conditions are associated with dramatically higher levels of overall Medicaid spending and a disproportionate number of Medicaid patients have behavioral health conditions.¹⁷ Evidence suggests that digital technology adoption is significant even for underprivileged and minority populations. A recent Pew Research study noted that more than 70 percent of people with annual incomes less than \$30,000 and 80 percent of Black and Hispanic individuals owned smartphones.¹⁸ While this is certainly promising, technology alone cannot address ongoing disparities in access due to lack of insurance, inability to take time off from work, or the stigma associated with seeking behavioral healthcare.



10,000+ Behavioral health apps¹⁶



\$600 MILLION in venture funding for BH in the first half of 2020



85% of psychiatrists seeing their patients virtually since the pandemic's onset

Amidst this boom, which are the best solutions to deploy? The decision will depend upon a variety of factors but, most importantly, should support an organization's clinical portfolio and patient needs. In Figures 1 and 2, we list the most common types of behavioral health programs along two dimensions: clinical complexity and degree of alignment required with the healthcare system. As health systems map out their behavioral health strategies, they should consider how virtual solutions for these programs can improve access to existing programs, expand access to new programs, and/or improve the quality of these programs.

Figure 1: Programs for consideration as part of "Digital Forward" behavioral health platform

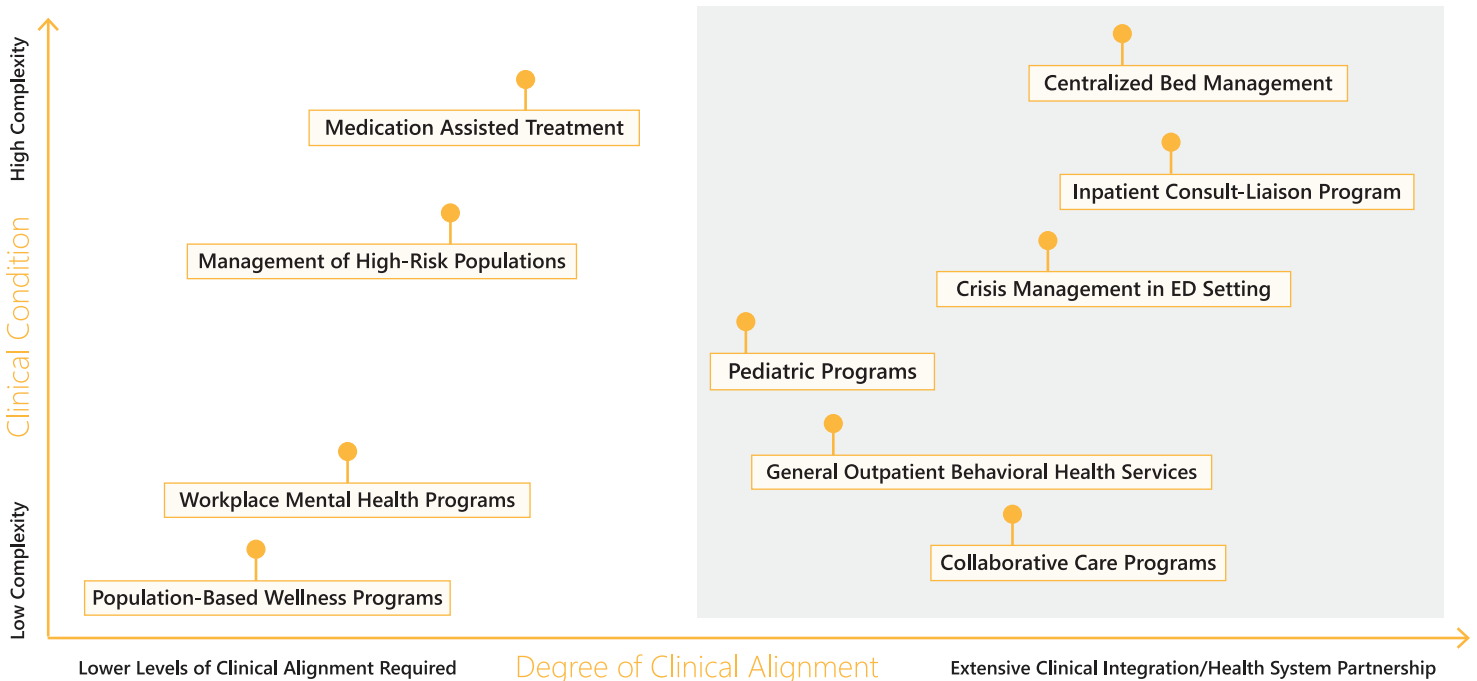


Figure 2: Digital behavioral health program description

PROGRAM	DESCRIPTION
Centralized Bed Management	Centralized evaluation and triage program for placement of high-acuity patients, leveraging data and analytics to optimize capacity utilization
Collaborative Care	Program providing timely access to behavioral healthcare through (potentially virtual) integration of behavioral health into primary care practices
Crisis/ED	Evaluation, management, and triage of patients with behavioral health conditions who present in crisis to the emergency department, leveraging virtual visit format for access and efficiency
General Outpatient BH Services	Traditional behavioral health practices and programs, enhanced by the use of digital tools for screening, therapy, education, and support
High-Risk Population Management	Data-driven identification and management of individuals with behavioral health comorbidities at high risk for increased utilization and worse outcomes
Medication Assisted Treatment (MAT)	Administration of buprenorphine in primary care, virtual, and other settings
Pediatric Focus	Complementary support tools to manage a range of pediatric conditions and disabilities
Population-Based Wellness Programs	Digitally enabled access to information and tools to enhance wellness and support coping – without need for clinician intervention
Proactive Consult-Liaison Program	Distributed, multidisciplinary team to support early identification, evaluation, and management of behavioral health conditions among inpatient admits
Workplace Mental Health	Employee-facing digital tools and programs as an adjunct to employee assistance program offerings

DBH ENHANCES THE VALUE OF INVESTING IN BEHAVIORAL HEALTH

Deploying DBH solutions improves the **efficiency and flexibility of clinical operations.**

- **DBH solutions provide the technical platform for virtual connection between provider and patient for both real-time interactions (e.g., video) and asynchronous interactions.** The traditional physical barriers (e.g., distance, scheduling inconveniences) and stigma are minimized, which creates significant efficiencies in the utilization of human resources. This includes increased provider productivity through reduced no-show rates and travel/windshield time. Behavioral health clinicians can expand their geographic reach by offering DBH services to areas otherwise lacking access. These services are particularly well-suited for patients unlikely or unable to travel for care but willing to receive care if offered a virtual connection via a trusted clinician.

- **A wide range of analytic tools can facilitate patient triage to the appropriate level of care intensity, provider type, and modality.** Thus, the organization can reserve limited and expensive provider resources for the patients who need it most at the times they need it most. High-acuity and more-complex patients can be identified for intensive care management. One of the most common metrics for depression, the PHQ-9 questionnaire, can be automated and incorporated as a routine part of an ambulatory patient visit. This enables practices to screen and identify patients who would benefit from various types of treatment, monitor the effectiveness of that treatment, and have a more objective indication of when to discharge patients from care when improved.
- **By deploying DBH solutions that do not require direct provider input, the organization can reduce its infrastructure cost — in effect supplanting labor and physical plant costs with “self-guided care.”** For patients needing direct professional care, DBH can serve as a “care multiplier.” An example of this would be self-guided therapies, such as internet cognitive behavioral therapy (iCBT), that can extend and complement a BH professional’s reach. In this way, treatment is always available so that patients don’t need to wait until the next therapy session for support and guidance. Providers also have more flexibility in adjusting the intensity of their interactions with patients, relying on these tools more for patients with lower-acuity conditions who may need less-frequent contact. These tools also provide robust data to providers, which can make encounters with patients more efficient by identifying the most important issues to focus on. For many individuals with lower-acuity conditions (i.e., mild symptoms of depression and anxiety), DBH solutions such as mindfulness and other “self-guided” apps may be able to mitigate the need for any direct provider care at all.

A summary of potential behavioral health value drivers facilitated by DBH solutions is included in Figure 3.

Figure 3: Behavioral health value drivers facilitated by DBH solutions

VALUE DRIVER	DESCRIPTION
Collaborative Care Reimbursement	Integrated behavioral health-primary care model that can break even or generate positive contribution margins with “incident to” monthly reimbursement to primary care practices (using new collaborative care codes), offsetting costs of utilizing behavioral healthcare clinicians who provide care coordination and therapy services.
Proactive consult-liaison service for inpatients	Length of stay reduction driven by improved care planning and management of behavioral health needs by dedicated multidisciplinary team
New patient growth from broad behavioral health access	Growth in new patient behavioral health consults resulting in referrals to PCPs or specialists for broader set of (behavioral and non-behavioral) health conditions
Improved utilization of multidisciplinary behavioral health team	Staffing model savings through more effective deployment of licensed clinical social workers and licensed mental health counselors to complement psychologists and psychiatric nurse practitioners to complement psychiatrists
Total medical expenditure savings for populations under value contracts	Significant per-member per-month savings for defined population of patients receiving improved access to behavioral care, including access to lower-cost care modalities and providers as clinically appropriate

DEPLOYING DBH AFFORDS AN OPPORTUNITY TO RE-THINK BEHAVIORAL HEALTHCARE DELIVERY

DBH solutions should not be relegated to “nice-to-have” additions to more traditional in-person encounters. In fact, there are several ways that these solutions **are a critical enabler for the development of a newly imagined approach to behavioral healthcare.**

DBH drives a transformation in how care is delivered.

- **Substitutive** (e.g., video encounter in place of an in-person encounter): Eliminates the barriers of time and travel required to get to a physical encounter, reduces stigmas attached to care, and provides the home as a more comfortable care setting. In addition, scheduling efficiencies are gained when the physical site of care is not a factor.
- **Complementary** (e.g., asynchronous solutions, such as chat, text, and self-guided solutions): Extends care beyond episodic visits (in-person or virtual). Behavioral healthcare providers can expand care across the continuum and facilitate greater connection with patients. With a more diverse menu of care options, providers can fine-tune their approach to address specific patient needs and preferences.
- **Scaling:** DBH enables providers to perform screening and triage on a larger scale through digital interfaces, with centralized care teams overseeing follow-up and with the help of remote monitoring tools. Workflow modifications needed to support the virtual care experience should also ensure more efficient and patient-friendly approaches to support in-person care.
- **Fine-tuning:** With a greater diversity of care options, health systems can offer a more fine-tuned and targeted approach. Implementing this capability effectively, however, requires deeper consideration of which tools are most effective for different types of patients, what communication is required to support different approaches to care, what skill mix and collaboration is required for clinical teams, and how scheduling templates should be changed to ensure that the right types of patients see the right providers for the appropriate amount of time.



Further application insights: While IT teams have an important role to play in integrating applications and infrastructure into a healthcare organization’s technology environment, the design and implementation of new technology should be conducted with thoughtful engagement of clinical, operational, and financial leaders to ensure that the health system realizes the full potential of DBH.

CONCLUSION

Given the enormous — and growing — potential of DBH, will behavioral health become the first truly digitally forward service line? Among clinical specialty areas pursuing digitally enabled care models, behavioral health is distinct in the level of solution maturity across multiple conditions.

With a technology platform and clinical workforce that embraces the unique advantages of digital service, provider organizations have the opportunity to dramatically improve quality of life for patients with behavioral health conditions. But the potential impact of digitizing behavioral healthcare is more profound.

A digitally forward approach that leverages virtual tools throughout the patient journey helps lay the groundwork for rapidly expanding the scope, scale, and efficiency of services across multiple conditions and service lines. For health systems looking to build upon recent gains in virtual care capabilities, DBH has become a catalyst and bellwether for digital transformation.

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