

THE BLUE RIDGE ACADEMIC HEALTH GROUP

*The Behavioral Health Crisis:
A Road Map for Academic Health Center Leadership
in Healing Our Nation*

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(June 2019 meeting)

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Mission *The Blue Ridge Academic Health Group seeks to take a societal
view of health and health care needs and to identify recommendations
for academic health centers (AHCs) to help create greater value for society.
The Blue Ridge Group also recommends public policies to enable AHCs
to accomplish these ends.*

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Introduction: The Behavioral Health Crisis

Summary of the Problem

The United States is in the midst of a behavioral health crisis. The need for services is growing, but there is a shortage of trained health care professionals, severe deficiency in inpatient/facility capacity, inadequate reimbursement, and a variety of other barriers that make it difficult, if not impossible, for people to access appropriate care in a timely manner. This crisis is compounded by the opioid epidemic, rising suicide rates, and an increasing prevalence of depression, anxiety, and other behavioral health conditions. This perfect storm has created a true health crisis—and a complex one. To date, the only positive consequences of this crisis are increased recognition of and attention to the problem due to its severity. We have an opportunity to greatly improve the behavioral health care and health of the nation, which, given the prevalence of these conditions and the fact that much of the illness burden emerges in youth and young adulthood, could have a profound and lasting impact on our society.

Regrettably, many health systems, including academic health centers (AHCs), do not adequately appreciate and/or acknowledge the impact of behavioral health services on their patients and communities. Health systems have not historically viewed behavioral health care as a key clinical “service line” like cancer, cardiovascular services, orthopedics, etc. Rather, behavioral health has been treated (at best) as a necessary but not important or integral contributor to the clinical services of a health system or patient outcomes. However, as *The Lancet* and others have so

astutely coined, there is “no health without mental health.”² To fulfill a hospital’s underlying mission of serving the health and health care needs of the surrounding community, and to keep the community healthy (increasingly important under value-based care models), behavioral health services are not optional or ancillary—they are essential and should be integrated.

The economics of behavioral health services are also misunderstood and miscalculated by most health systems and AHCs. Since behavioral health is often analyzed as a stand-alone service, the economics show challenged margins and lower returns on investment, negatively impacting the financial health of the overall system. Consequently, most health systems have limited their commitment to behavioral health service delivery, including the capital investment in facilities. However, as described in the remainder of this report, this approach is the wrong way to think about the role and economics of behavioral health. Behavioral health services not only can have a significant *human* and *societal* impact, but they also can be financially sustainable for health systems if viewed as an integral support service needed by many patients and impacting the overall care and thus cost of care for those patients. For example, effective psychiatric consultation-liaison services can help reduce inpatient lengths of stay and readmissions for patients admitted for medical conditions who also present evidence of a behavioral health issue. In addition, integration of behavioral health services with primary care can reduce per capita health costs for those health systems managing total medical expenditures for populations. This report helps explain why our nation’s approach to behavioral health must change and the role that academic health centers can play in leading that change.

Behavioral Health Defined

“Behavioral health” is a state of mental health, emotional well-being and/or choices and actions that impact wellness. Behavioral health problems include mental illness, cognitive impairment, psychological distress, and substance use disorders. Behavioral health care or services as we are defining them include clinical care and support employed to improve

behavioral health, which could include medication, therapy, counseling, or other types of psychosocial support. In this report, we will be using behavioral health and health care as more universal terms—encompassing mental illness and substance use disorders—but it should be noted that many use a dual term, “mental and behavioral health.”¹

A brief history

Inadequate and at times misdirected investment in behavioral health care in the U.S. over many years has led us to this crisis. Designing an effective, comprehensive behavioral health care system is not a simple task, and many different models have been tried in the U.S. over time—bolstered by a variety of subsidies, laws, and regulations. See sidebar, *A Brief History of Behavioral Health in the United States*.

A profound impact

Mental illness and substance use disorders affect all of us in some way—directly/personally, through family/friends/colleagues, and collectively as they impact communities and society as a whole. The magnitude of their impact is striking. Studies have shown that behavioral health conditions not only are the source of the highest spending compared with other health conditions in the U.S., but also have the highest negative

A Brief History of Behavioral Health in the United States

- **19th and early 20th Century:** Care for the mentally ill focused on the most severe conditions. Patients were treated in “asylums,” large inpatient hospitals typically run and funded by states. Outpatient care virtually was nonexistent.
- **1946:** The National Mental Health Act (NMHA) led to creation of the National Institute of Mental Health (NIMH). Demand for services increased dramatically post-WWII. The goals of the NMHA were to shift much more care to outpatient settings, reduce costs, and better accommodate increasing demand.
- **1950s and 1960s:** The first drugs for psychoses (e.g., Thorazine) and bipolar disorder (e.g., lithium) were introduced, followed by drugs for more common conditions, such as depression and anxiety. As a consequence, previously disabling conditions could be treated on an outpatient basis. Evidence-based approaches led to a shift away from psychodynamic therapy as the primary therapeutic approach to the use of psychotropic medications as first-line therapy.
- **1963:** The Community Mental Health Act made significant U.S. funding available for development of community-based mental health centers. The movement to outpatient care was an important precipitant leading to a steady decline of inpatient psychiatric beds and the deinstitutionalization of patients with severe mental illness.
- **1970s:** The transition from the *Diagnostic and Statistical Manual of Mental Disorders II (DSM-II)* to *DSM-III* represented an important shift away from vague psychological terms, such as neurosis, to the first attempt to medicalize psychiatry with the development of epidemiologic-based descriptive nosology.
- **Late 1980s/early 1990s:** Selective serotonin reuptake inhibitors (SSRIs) were introduced to treat depression—most notably, Prozac (1987). Over the next two decades, use of psychotropic medications, particularly for depression and anxiety, dramatically increased, with nearly 20% of the population on one of these drugs by 2017. Most of these medications were and continue to be prescribed by primary care providers rather than psychiatrists or other mental health specialists.³
- **2008:** The Mental Health Parity and Addiction Equity Act (often referred to as the Parity Act) became law. This landmark federal legislation mandated equal coverage for both medical/surgical and behavioral health care delivery, and it applied not only to federal insurance plans but to commercial insurance as well. An expected consequence of this act was that health systems develop “network adequacy” to provide the levels and types of care needed for the population served. However, the increasing shortage of mental health care professionals and services lessened potential for achieving that expected result. In addition, because enforcement of the act was allocated to state health agencies, there was and continues to be wide diversity in its enforcement. Consequently, despite the intent of the Parity Act, comprehensive behavioral health insurance coverage and provision of care lags far behind coverage for medical and surgical care. For more details on the Parity Act, see *A Gap in Supply and Other Barriers to Access* on page 9.

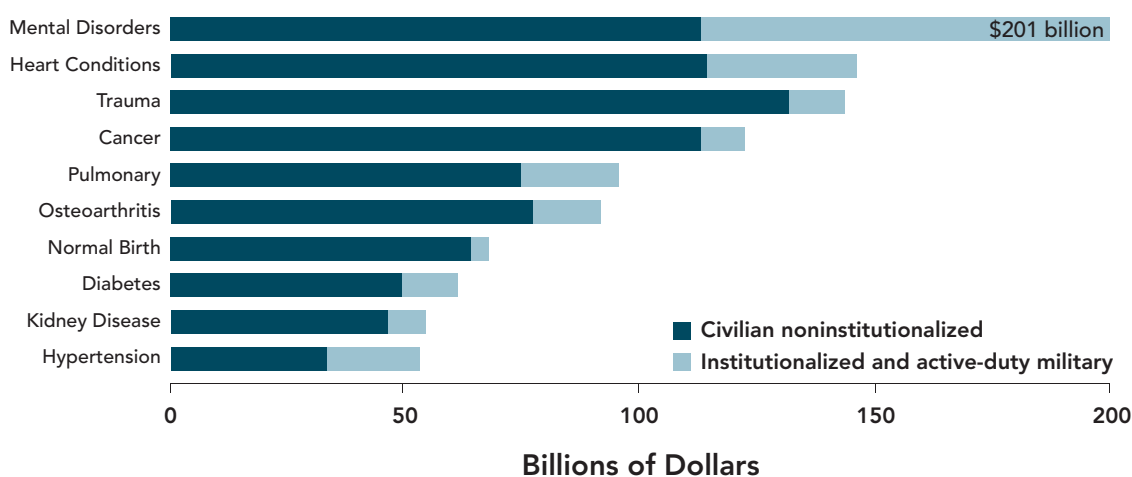
impact on a person's life when looking at the time that patients live with disability caused by their condition. See Figures 1, 2 and 3.

Despite these troubling statistics, and even after a decade under the Parity Act, insurance coverage for many behavioral health services is either inadequate or not available at all. This lack of adequate cost coverage has led health care organizations to limit inpatient and outpatient behavioral health services and limit salaries for behavioral health professionals, which only further compounds access challenges for those in need nationwide. Data from a recent Milliman report show that Americans *with* health insurance, as would be expected, typically use their coverage for medical and surgical care. However, those covered by insurance are more likely to use "out-of-network" services for behavioral health care needs.⁸ Consequently, patient decisions to seek behavioral health care outside of their insurance network, and health systems' limitation of both salaries and services for behavioral health care due to inadequate cost coverage, have a negative spiraling effect. Because behavioral health professionals are reimbursed poorly by insurance plans, many choose to provide care only on a fee-for-service basis, allowing them to charge far more than a patient's insurance would pay. In addition, since insurance reimbursement is insufficient to cover health system costs, and since

substantial numbers of behavioral health professionals are choosing to provide care outside of insurance networks, the availability of behavioral health professionals caring for patients within health systems through insurance networks is increasingly limited. Further, among the limited number of professionals who do accept insurance, wait times for appointments can be extensive, thus leading those who need care to forego it, or those who can afford it to go out of network for their care. Indeed, out-of-pocket costs for out-of-network behavioral health care are not insignificant. One study found that someone with a drug use disorder may pay \$1,200 or more annually for out-of-network care compared to an individual with diabetes seeking out-of-network care.⁹

To add to the access challenges and health professional shortage, we continue to experience both the physical and perceptible effects of separating behavioral health care from medical care prevalent over a century ago. Asylums for the mentally ill, developed in the late 19th/early 20th centuries, were often separated from acute care hospitals and placed in rural settings, away from concentrated populations, due in part to the stigma surrounding mental illness and a "not in my back yard" sentiment. While most of the old asylums have closed, the separation between behavioral health care and all other medical care is still evident, and many health systems treat

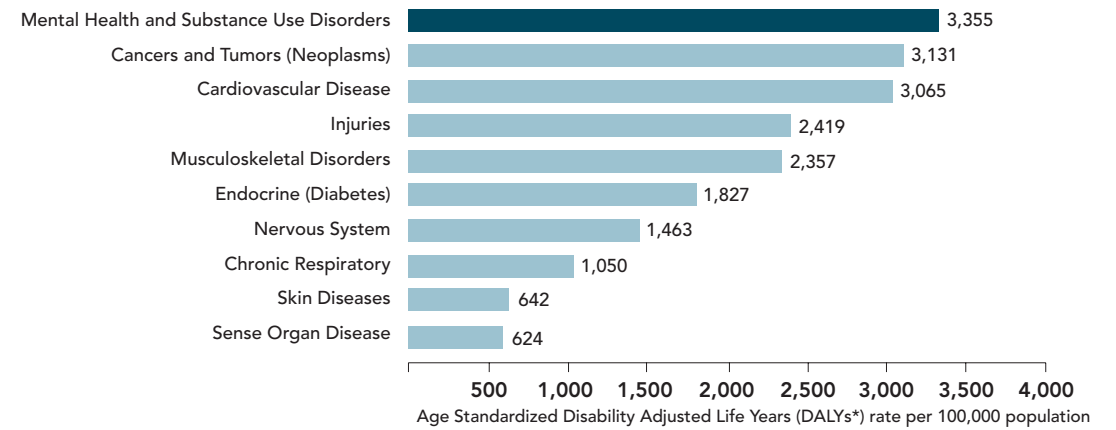
FIGURE 1 | 10 Medical Conditions with the Highest Estimated Spend⁴



Source: Analysis of National Health Expenditure Accounts, 2013, by C. Roehrig.⁴

FIGURE 2 | Leading Causes of Disease Burden in the United States, 2015, Excluding Neonatal⁵

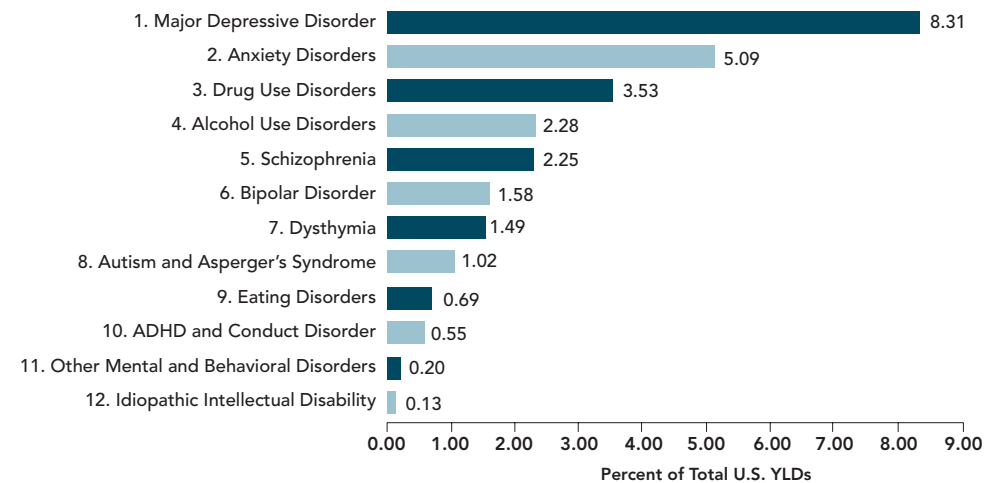
In Age Standardized Disability Adjusted Life Years (DALYs)* per 100,000 Population



*DALYs: Lost years of healthy life regardless of whether the years were lost to premature death or disability. One DALY can be thought of as one lost year of "healthy" life. The sum of these DALYs across the population is a way of estimating the true burden of disease. DALYs represent the difference between current health status (including impact of disease) and an ideal health situation in which the entire population lives to an advanced age, free of disease and disability.⁶

Source: Article by R. Kamal, Peterson-KFF Health System Tracker.⁵

FIGURE 3 | U.S. Years Lived with Disability (YLDs)* for Mental Health and Behavioral Disorders as a Percentage of U.S. YLDs (2010)⁷



*YLDs: Years lived with disability, a measurement of the burden of disease

Source: National Institute of Mental Health.⁷ Data courtesy of WHO.

behavioral health differently in terms of clinical care, economics, insurance coverage (carve-outs), and recordkeeping, as well as privacy rules, regulations, and laws.

This report provides context around the current state of behavioral health and health care and offers commentary on elements of the crisis that health care organizations, health care professionals, and policymakers can and must tackle. This report describes successful, evidence-based approaches to behavioral health care that can be emulated and used as a starting point for further advances. We provide a set of actions that AHCs should consider. We demonstrate that expansion of behavioral health services and greater integration with medical care can: (1) be financially sustainable, (2) greatly enhance the communities we serve, and (3) have a lasting impact on improving the health and wellness of our nation.

Examples of the Behavioral Health Crisis

The five patient vignettes that follow illustrate the broad scope of behavioral health conditions and the inadequacies of our current system of care in addressing these challenges. Although these vignettes are fictional, they are based on real-world examples.

■ Access challenges, stigma, and postpartum depression in rural America

M. is 32 years old and lives in a rural community in the northeastern United States. She has experienced symptoms of mild to moderate depression on and off since childhood, though she has never been diagnosed by a physician or spent much time with school psychologists. When she has tried to talk with her parents about her feelings, they didn't think she needed professional help and believed that her negative feelings could be overcome by inner strength, a stronger faith in God, determination, and a more positive attitude. M. recently had a baby, and though her husband is supportive and her parents are close by, she is struggling emotionally and feeling overwhelmed. Since the birth, she has experienced periods of uncontrollable crying, had persistent negative thoughts and self-doubt about her abilities as a mother, and,

worst of all, missed out on feeling the “magical connection” with her baby that many new mothers describe. When given a postpartum depression survey at a follow-up appointment with her OB/GYN physician, she is honest and chooses the answers that summarize her state of emotion. Her doctor expresses immediate concern and refers her to a psychiatrist, suggesting that an antidepressant and “talk therapy” would be helpful to address her symptoms. M. is hesitant to schedule an appointment with the local psychiatrist who is friends with her parents. She also has heard that one can't breastfeed while taking antidepressants, and she doesn't want to stop doing that yet. Another worry is the risk that she will be deemed “unfit” to care for her baby and the baby will be taken away. M. recently saw an advertisement for an online mental health professional but doesn't know if that would be covered by her insurance. She is feeling too busy and overwhelmed with her new baby to explore the details. She is ashamed of her struggles and can't see an easy path forward, so she chooses to continue without additional support.

■ Diagnosis and care challenges in urban America

L. is 26 years old, lives in a large urban city, recently received her master's degree in business administration, and works for a top-ranked investment bank. L. has been experiencing increasingly strong mood swings, which began several years ago, but they now seem to be exacerbated by her demanding workload and unpredictable work hours. She has had depressive episodes that have caused her to take occasional days off from work. She has also had periods where she has been very productive and energetic and can't even remember what it felt like to be depressed. She realizes that something is off, particularly after receiving some comments from concerned colleagues at work. She confides in a close friend, who recommends two psychiatrists her friend has seen in the past. Unfortunately, neither takes insurance, and though L.'s salary is adequate to meet her usual needs, she doesn't think she can afford the sessions. She visits her insurance company's website to search for psychiatrists in her area

who accept insurance. She reaches out to three, but two have wait times of multiple months for a first appointment, and one no longer practices. She decides that she is OK for now, and if she can gather the courage to talk to her parents, perhaps they can subsidize her for a few sessions in the future.

■ The alarming dearth of behavioral health options for children and adolescents

F. had exhibited signs of depression and anxiety from age 10 and had to repeat a grade after one particularly bad year when he missed a significant amount of school. In seeking help for their son, F.'s parents came to the startling realization that there were few pediatric behavioral health services available in their area. Through a neighbor they were finally able to connect F. with a child and adolescent psychiatrist. F. was put on medication and engaged in regular psychotherapy sessions, usually one-on-one and occasionally with family members included. Shortly after F.'s 14th birthday, his parents received a call from his psychiatrist—F. was expressing suicidal intentions and had coalesced them into a plan. He needed to be hospitalized immediately and evaluated for a medication/treatment plan change. The process would begin with an involuntary 72-hour “hold” in an inpatient facility, as he was considered a danger to himself and others. F.'s parents quickly learned that their local hospital did not have an inpatient psychiatric unit for children and adolescents. They reached out to a nationally renowned academic medical center 40 miles away only to discover that it too only provided outpatient psychiatric services for children and adolescents. When presented with the fact that he had to go to a facility over 100 miles away, F. became scared and emotionally distraught. To make matters worse, for legal reasons, his parents were neither allowed to transport him to the hospital nor be with him in the emergency room. F. had to be strapped in an ambulance for the trip and could only see his parents once he was in the locked inpatient unit. F. spent only five days in the inpatient facility—too short a time needed to adequately address his problem, his psychiatrist argued. Despite his short inpa-

tient stay, as their insurance did not cover many of the services provided, F.'s parents were met with an exorbitant bill. F.'s return to his town, school, and “normal” routine was difficult, and his parents worried about what they would do if/when a similar situation arose in the future.

■ The human toll of the opioid crisis

S. is 50 years old and lives in a mid-sized city in Ohio. A year ago while driving to work, S. was severely injured in a car accident when a semi-truck slammed into his vehicle. S. nearly lost his left hand, but after four surgeries it was saved. While in the hospital, S. received intravenous opioids to manage his severe pain. Upon hospital discharge, he was transitioned to oral opioids, which were initially managed by his orthopedic surgeon and then by his primary care physician (PCP). After several months, S. told his PCP that he would like to taper off the opioids. However, through the process prescribed by his PCP, S. found the withdrawal symptoms unbearable, with intestinal problems, deep depression, agitation, and alternating periods of constant sleep and then inability to rest. His PCP admitted that he didn't have the training or experience necessary to tackle S.'s opioid addiction. While his PCP was seeing more patients with addiction issues, he didn't have the time to learn how to manage these patients with medication-assisted treatment (MAT). Fortunately, there was a program in the community that specialized in the management of opioid use disorder (OUD). S. was placed on buprenorphine and began rehab.

■ In the emergency department with a behavioral health crisis

J. was having a particularly stressful week at his job working for a state-run program to help children with severe learning disabilities. He took a couple of days off to help quell his anxiety. When his adult children came over to check on him, they were alarmed by his level of anxiety and the language he was using to communicate that he was contemplating suicide. J.'s children decided to call authorities, despite his objections. J. was taken to the local hospital where his children signed a legal petition, with

the help of an emergency department (ED) physician, saying J. was a danger to himself. J. should have been transferred to an inpatient psychiatric facility to receive the specialized care that he needed to manage his depression and anxiety and keep him safe until the suicidal ideation resolved. However, a shortage of inpatient psychiatric beds meant that J. needed to be detained in the ED (“boarded”) until an inpatient bed on a locked unit became available. The ED did not have access to behavioral health expertise, nor had the staff been trained to manage patients with behavioral health conditions. Consequently, J. was held in an isolated part of the ED without treatment, and the staff treated him disrespectfully or ignored him. After sitting in the ED for four days, J. was finally transferred to a psychiatric facility. Traumatized by his ED experience, J. required a longer inpatient stay because of the lack in timely access to inpatient care.

Overview of the Current State

As attention to the behavioral health crisis has grown in the past few years, many articles in the academic and lay press have focused on the topic. Here we provide a synthesis of the current state of behavioral health, including the key elements contributing to the crisis.

1. Increasing demand

Mental illness is highly prevalent in our population. The National Alliance on Mental Illness reports that 1 in 5 adults experience some mental illness each year (19.1% in 2018), and one-quarter of those affected experience serious mental illness (SMI) each year.¹⁰ (SMI is defined as “mental, behavioral, or emotional disorder resulting in serious functional impairment, which substantially interferes with or limits one or more major life activities.”¹¹ The Blue Ridge Academic Health Group [BRAHG] includes this term in this report due to its widespread use, though we do not subscribe to the implied notion that any mental or behavioral disorder is *nonserious*.) About 10% of children age 5 to 16 have a diagnosable mental illness. More than 50% of psychiatric illness arises by age 14, and 75% by age 24. However, **more than**

60% of youths have not had adequate (or any) interventions at an appropriately early age. For the adult population, over half of those suffering from a psychiatric illness do not receive care.¹²

Substance use disorders are also prevalent. Over 20 million Americans (roughly 8.4%) suffered from one or more substance use disorders in 2017.¹³ For those who abuse alcohol, the prevalence of a comorbid psychiatric disorder ranges from 1.3% for a comorbid panic disorder, 11.3% for a major depressive disorder, to nearly 30% for anxiety disorders.¹⁴

Recent studies have reported a significant increase in mental illness over the past decade. One study compared self-reported surveys of hundreds of thousands of people, finding that those reporting symptoms consistent with major depression increased from 8.7% in 2005 to 13.2% in 2017 (an increase of over 50%). The same study found that young adults “experiencing serious psychological distress in the previous 30 days” rose from 7.7% in 2008 to 13.1% in 2017 (an increase of 71%). The rate of young adults with suicidal thoughts or other suicide-related outcomes increased from 7.0% in 2008 to 10.3% in 2017 (an increase of 47%).¹⁵

Another study showed a 62% increase in college students with a mental health diagnosis (from 21.5% to 35.5%) between 2007 and 2017, and an 86% increase of having suicidal ideation (from 5.8% to 10.8%) in the same timeframe.¹⁶

Finally, opioid-related overdose deaths have nearly doubled between 2007 and 2017 (from 36,000 to 70,000 in the U.S.), with many more men dying from opioids than women.¹⁷

Numerous factors are likely driving these disturbing trends. For mental illness rates, the rise could be attributed to better diagnosis and/or more individuals seeking professional help due to a reduction in stigma—positive contributors by all arguments. Even accounting for increased identification of mental illness, whether by self or others, the increase in suicide in almost every demographic category indicates a real trend of increased incidence and prevalence of mental illness and addiction. This increased incidence and prevalence are potentially driven by various factors present in our modern lives: lack of sleep,

a change in the nature of social relationships and interaction (i.e., the proliferation of social media), an increasingly busy lifestyle, the current caustic political environment, and the “epidemic of loneliness.”¹⁸

2. A gap in supply and other barriers to access

Regardless of which factors are driving these trends, there is a need for greater access to behavioral health services. Unfortunately, there is not enough supply of behavioral health services to meet the growing need, and there are real barriers to accessing the care that is available.

The number of inpatient psychiatric beds available in the United States has dropped dramatically over the past ~60 years: from 339 inpatient psychiatric beds per 100,000 population to 11 in 2016. Part of this decline reflects deinstitutionalization and the appropriate shift of treatment to the outpatient setting. However, experts estimate that the U.S. needs between 40 and 60 inpatient beds per 100,000 population, which would mean that between 93,000 and 123,000 additional inpatient psychiatric beds are needed across the country to meet the demand. See Figure 4.

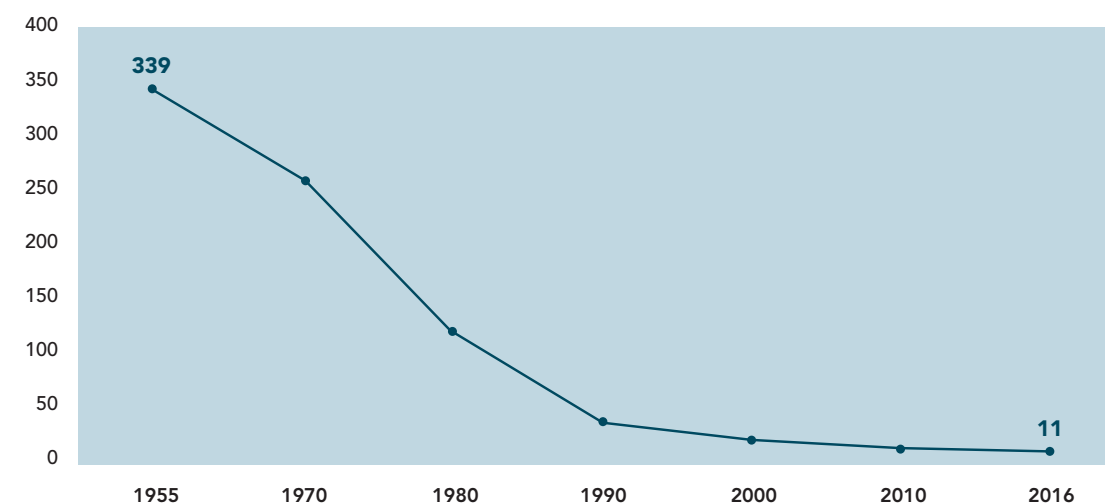
The supply of psychiatrists is also inadequate to meet current demand. Despite an uptick in interest in the field from medical school graduates, it is projected that the number of residency slots available will not be sufficient to negate the

reduction in supply from anticipated retirements of current psychiatrists. If this projection holds true, the total number of psychiatrists will drop in the next five to 10 years, exacerbating the already serious shortage. See Figure 5 on page 10.

It’s important to note that there are efforts to improve access through the use of other behavioral health professionals, including Psychologists, Licensed Mental Health Workers, Licensed Clinical Social Workers, Marriage and Family Therapists, Licensed Professional Clinical Counselors, and specialty-trained Nurses/Nurse Practitioners/Physician Assistants. However, many parts of the country are having difficulty training, recruiting, and retaining these professionals due to geographic preferences, lack of resources, and burnout, among other reasons. This access gap varies widely by state. The ratio of behavioral health professionals to population ranges from 1:180 (Massachusetts) to 1:1,180 (Alabama).²⁴ The problem is worse in rural areas. Eighty-five percent of the federally designated behavioral health professional shortage areas (HPSAs) are in rural geographies, and it would take an estimated 6,900 behavioral health professionals to reverse these shortage designations,²⁵ assuming these professionals would choose to practice in these underserved areas.

Cost also remains a significant barrier to

FIGURE 4 | Psychiatric Inpatient Beds in the United States, per 100,000^{19, 20, 21, 22}



Source: Research Weekly,¹⁹ National Health Policy Forum,²⁰ *J Am Acad Psychiatry Law*,²¹ NRI²²

accessing services, even if clinicians have availability. Cost and inadequate insurance have been reported as the biggest deterrents to using behavioral health services across races and ethnicities.²⁶ As highlighted previously (See sidebar, *A Brief History of Behavioral Health in the United States*, on page 3), the Paul Wellstone and Pete Domenici Mental Health Parity and Addiction Equity Act of 2008, commonly referred to as the Parity Act, was aimed at increasing coverage requirements for mental illness and substance use treatment to bring them in line with mandated coverage for other medical care.²⁷ The intent behind the law was to increase access to behavioral health services for all, regardless of insurance plan. However, the promise of the law has gone under-realized, in part due to lack of enforcement. While the Parity Act is federal law, states have primary enforcement authority. A 2018 collaborative effort between the Kennedy-Satcher Center for Mental Health Equity (at Morehouse School of Medicine), the Well Being Trust, and ParityTrack evaluated all 50 states and gave a failing grade to 32 for their own parity statutes.²⁸ Barriers to enforcement include: “lack of effective enforcement tools, an ineffective compliance process, lack of aware-

ness about the Parity Act and the rights it affords, insufficient patient access to treatment, and lack of political will to strengthen enforcement.”²⁹ A recent report by Milliman suggests that significant variation in state parity laws remains 10 years after the initial federal legislation was passed.³⁰

One repercussion of this access problem is the significant overuse of emergency rooms for patients in behavioral health crisis. One recent study showed a 42% increase in emergency room visits for behavioral health reasons over a three-year period.³¹ As highlighted in the case example on page 7, there are many reasons why a hospital ED is not the best place for these patients, including inadequately trained physicians, nurses, and other health team members. Authors of a 2018 *Health Affairs* blog post stated, “Patients are likely to spend many hours and, too frequently, multiple days waiting for a transfer to another care setting. They are often disrespected by the current protocols in the ED, which can leave people traumatized and stripped of their dignity.”³²

A related consequence of the inadequate supply of behavioral health services and inpatient psychiatric capacity has been an increase in the number of mentally ill, particularly those with

serious mental illness (SMI), in jails and prisons. A recent scan of 44 states found that jails/prisons hold more mentally ill individuals than any of the largest remaining state psychiatric hospitals. In every county in the United States with both a county jail and a county psychiatric facility, more seriously mentally ill individuals are incarcerated than hospitalized.³³ See Figure 6.³⁴

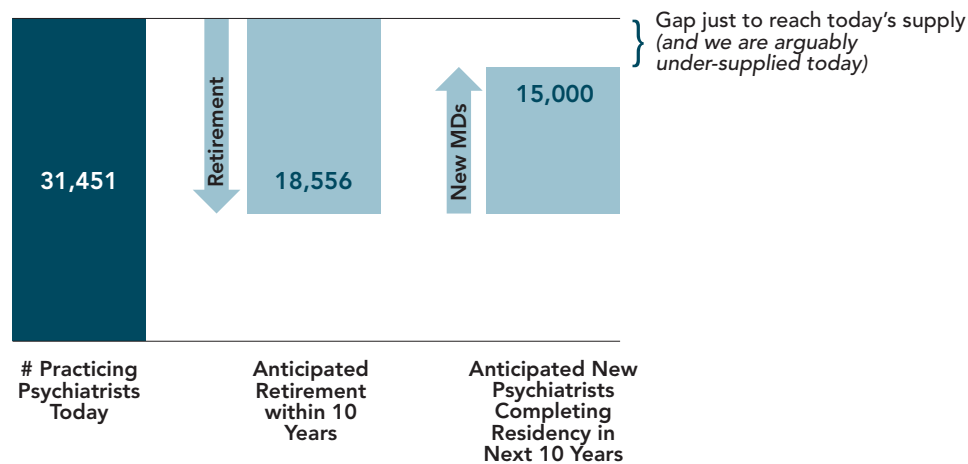
The National Alliance on Mental Illness has stated that people in a mental health crisis are more likely to encounter police than to get medical attention, resulting in 2 million people jailed every year. A 2017 report from the Bureau of Justice stated that nearly half the people in jail in the United States suffer from mental illness.³⁵ To exacerbate the situation, those jailed or in prison don’t typically get the treatment they need—at least 83% of jail inmates with a mental illness did not have access to needed treatment—leading many to deteriorate further.³⁶ Once released, an individual’s life is impacted by previous incarceration in many ways, such as difficulty finding housing or employment.³⁷ The impact on health and behavioral health from factors such as these, known as social determinants of health, are becoming better understood. The National Academy of Medicine

states that clinical care is only responsible for 20% of an individual’s health. Environmental factors, social and economic factors, and behavioral factors contribute 80%.³⁸

3. The inflated cost of medical care due to behavioral health comorbidities

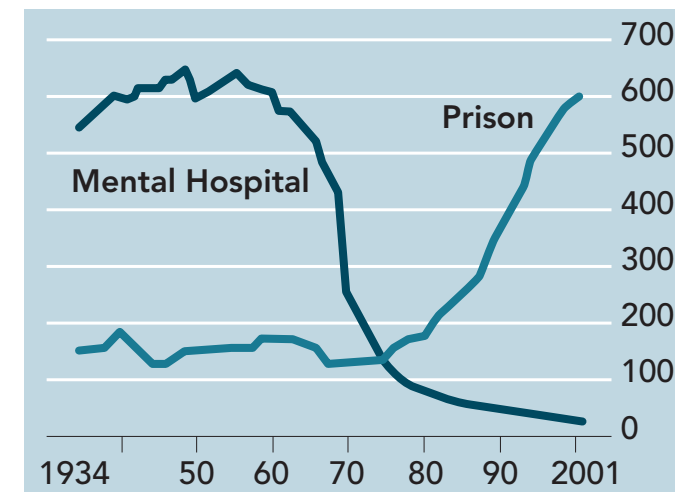
There is convincing evidence in many studies involving many settings that having a behavioral health comorbidity adds to the cost of treating patients with nonbehavioral conditions. In a recent Canadian study of patients with chronic medical disease, having a mental health disorder was associated with significantly higher resource use (including hospitalizations and ED visits), longer length of stay for those admitted to a hospital, and higher cost—a mean three-year adjusted cost per patient of \$38,250 for study participants with a mental illness, as compared to \$22,280 for those without.³⁹ In Massachusetts, a Health Policy Commission analysis looked at the financial impact of having a behavioral health condition for patients with medical conditions. For commercially insured patients, having a behavioral health condition doubled the cost of care. For Medicare patients, the cost increased by a factor of 2.5.⁴⁰ Care models that better diagnose and treat

FIGURE 5 | Supply Projection for Psychiatrists in the United States²³



Source: Merritt Hawkins.²³ Shortage projection analysis by The Chartis Group.

FIGURE 6 | Institutionalization Rates by Location in the United States, per 100,000 Adults³⁴



Source: B.E. Harcourt, “An Institutionalization Effect: The Impact of Mental Hospitalization and Imprisonment on Homicide in the United States, 1934–2001,” *The Journal of Legal Studies*, January 2011.

behavioral health conditions have the potential to save meaningful resources and reduce the expense of treating medical conditions—a later point of discussion in this report.

4. The impact of stigma

Stigma is technically defined as “a set of negative and often unfair beliefs that a society or group of people have about something.”⁴¹ While behavioral health disorders can cause some to avoid seeking treatment (e.g., for anxiety disorders), public stigma (and, when internalized, self-stigma) can act as another powerful deterrent against seeking care. Between 27% and 33% of adults who had an unmet need for behavioral health services cited “prejudice and discrimination” (aka stigma) as a reason.⁴² And stigma doesn’t only affect patients with behavioral health conditions. It also has an impact on health care professionals and may be one of the reasons more medical students and aspiring health professionals don’t choose to go into the behavioral health specialties.

The impact of stigma in behavioral health and health care varies between racial and ethnic groups. Studies have shown that ethnic minorities experience more stigma around mental illness and seeking treatment.^{43, 44, 45, 46}

While stigma continues to be a highly influential and ingrained dynamic impacting individuals’ decision to seek care, there is some good news—evidence that stigma over mental health treatment is on the decline. In a 10-year study done on 196 college campuses, “Personal Stigma Regarding Receiving Mental Health Treatment” declined from 8.2% in 2007 to 5.1% in 2017. Not a monumental change, but a promising trend.

5. The impact of inadequate reimbursement

Historically, reimbursement for behavioral health services has been significantly lower than reimbursement for medical conditions. One study found that behavioral health professionals are reimbursed at fee-for-service rates 20% below a PCP, when the time required to evaluate patients is often longer than a basic primary care visit.⁴⁷ Reimbursement is more limited for preventative services (e.g., early risk assessment and interventions) and/or rehabilitation services, stranding individuals on either side of a behavioral health issue or episode.

Regulatory requirements for health care systems and facilities are adding costs (e.g., understandable but costly new Joint Commission Standards on Ligature Risks altering room design requirements), with total investment in psychiatric compliance costing health systems and facilities over \$2 billion each year.⁴⁸

Many hospitals and health systems responded over the past few decades by closing inpatient psychiatric units, reducing or discontinuing psychiatric services in general (inpatient and outpatient), and/or reducing the number of employed or contracted behavioral health clinicians.

Private psychiatrists and psychologists have responded as well, many choosing not to accept insurance at all. A 2014 study published in *JAMA Psychiatry* found that only about 55% of psychiatrists accept commercial insurance or Medicare, the lowest acceptance rate across 15 specialties, and only 43% accept Medicaid. This practice of not accepting medical insurance for providing behavioral health services sets up a clear barrier to access for those who cannot afford to pay out of pocket.⁴⁹ See Figure 7.

Reductions in other general acute care hospital services in other medical specialties with challenged reimbursement, such as obstetrics/labor and delivery services, are often met with open public objection. And yet a reduction in behavioral health services is often less visible and less recognized.

The impact of low commercial and governmental reimbursement and related inadequate supply of behavioral health services and capacity has created substantial barriers to access. Inadequate access has a direct impact on individuals with behavioral health conditions who must continue to suffer with their illness. There is a significant indirect impact as well, including on family/friends/colleagues who struggle to provide helpful support, absenteeism from work and commitments, and presenteeism when employees are not fully functioning in the workplace.

6. Advances in scientific research

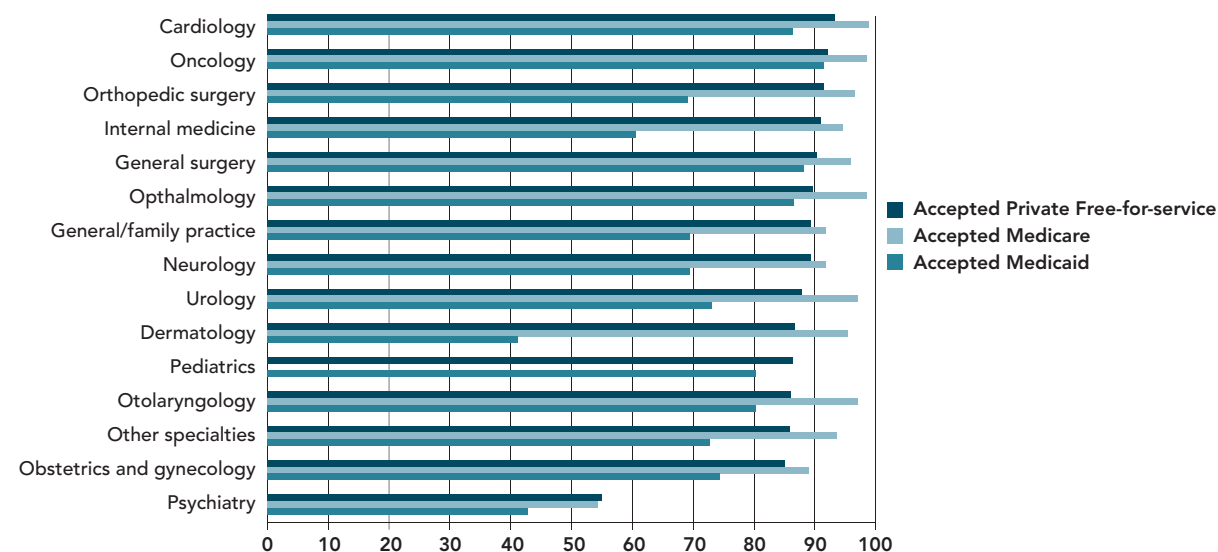
Despite the challenges, progress has been made on the research front regarding how we study and understand mental illness. Indeed, the basic science supporting psychiatry, which was once ex-

clusively psychopharmacology, now includes neuroscience, with a broad span of innovation from molecular to behavioral approaches. The tools of brain imaging have increasingly redefined mental illnesses as brain disorders or, more specifically, brain circuit disorders. Imaging studies have not discovered frank lesions, as seen in many neurological disorders, but these studies have revealed reproducible changes in brain circuitry or connectivity in people with mental illness. Large-scale genetic studies have discovered a complex biology and potential susceptibility to developing mental illness. Much of this susceptibility resides in genes important for brain development. Taken together,

such imaging studies and genetic research suggest that mental illnesses are developmental brain disorders, subject to both biological and environmental factors early in life, years before symptom onset.

The impact of these scientific advances will help inform future treatments as well as care models. It is important to note that while funding from pharmaceutical companies has decreased in the area of behavioral health in recent years, research at academic health centers continues to proliferate. We discuss the role of AHCs in furthering behavioral health research in the *Discussion and Commentary* section that follows.

FIGURE 7 | Physician Acceptance of Insurance by Specialty⁴⁹



Source: Articles by J. Renfrow, *FierceHealthcare*,⁴⁸ and T. Bishop and M. Press, *JAMA Psychiatry*.⁴⁹

I. Discussion and Commentary

Health care organizations, health care professionals, researchers, and policymakers can use numerous approaches to improve behavioral health care and meaningfully impact the health and well-being of our nation.

■ Advancing care models

New care models are needed to address behavioral health more effectively than in the past. Several innovative models have emerged.

o *Integrated/collaborative care models:*

Collaborative care models integrate mental health care services—and increasingly substance use treatment—into primary, secondary, or acute care by creating multidisciplinary care teams that jointly address all issues a patient may be experiencing in a coordinated and cohesive way. These models are “step-based,” meaning the majority of patients can be treated in a lower-acuity setting by the collaborative team, and only the most complex patients need to be referred for specialized psychiatric evaluation and treatment. Complex patients benefit from highly trained professionals in a specialized care setting, which is why collaborative care models are important but do not replace behavioral health institutions and specialty psychiatric hospitals, which provide highest-quality, most complex, cost-efficient psychiatric care. See sidebar, *Collaborative Care Models*.

■ Early intervention and longitudinal care

Evidence has shown that early intervention, particularly for certain mental illnesses such as schizophrenia, can lead to higher rates of improvement and better functioning. There are several early intervention approaches, one of the most well-known being the coordinated specialty care (CSC) model, studied in the NIMH-funded Recovery After an Initial Schizophrenia Episode (RAISE) project, which found the model was cost effective and produced better outcomes.⁵³ The key is *early* intervention. When episodes are caught very early, interventions have been shown to delay or even stop a schizophrenic patient’s decline, helping raise the potential for full recovery.⁵⁴ Experts in the field apply the analogy of cancer, where early diagnosis improves prognosis and expands available treatment options for patients.

See sidebar, *Early Intervention for Psychosis*, on page 16.

■ Attenuating the impact of Adverse Childhood Experiences

Other evidence, such as in the CDC-Kaiser Adverse Childhood Experiences (ACEs) Study, has shown that adverse childhood events can contribute to a variety of negative health and well-being outcomes later in life, from higher rates of depression/anxiety, increased prevalence of sexually transmitted diseases, to higher rates of cardiac and other chronic illnesses.⁵⁸ Conversely, with intentional services addressing those with and susceptible to adverse experiences, there is some evidence of “health outcomes of positive experiences (HOPE),” particularly for children from lower income and minority families.⁵⁹ While more research needs to be done, a recent report of survey data from Prevent Child Abuse America, the Centers for Disease Control and Prevention (CDC), and the Wisconsin Department of Health Services showed that while exposure to ACEs were “higher for lower income and minority populations, the effect of positive experiences to attenuate poor health outcomes was similarly strong across income groups.” One notable finding was that the “positive experiences” with the greatest impact were having family members supporting a child and the child having someone to talk to when they were experiencing difficult feelings.⁶⁰ This finding suggests an important benefit of providing wrap-around preventative services in foster care programs, juvenile prisons, or detention centers, etc.

■ Different approaches for different groups

There are many patients with behavioral health conditions who are best managed by professionals with specialized training and experience. Some disorders are less common or highly complex, requiring a specific approach and specially trained professionals. Examples include psychiatrists and other behavioral health professionals who have specialized training to manage pediatric conditions, eating disorders, geriatric conditions, and severe depression. Additionally, research in low-income, conflict-affected countries has demonstrated that individuals with no education beyond a high school degree can be taught to administer

Collaborative Care Models

Examples of successful models include:

1. A model pioneered by Dr. Jurgen Unutzer at the University of Washington and the AIMS (Advancing Integrated Mental Health Solutions) Center is based on a collaborative team approach and uses a registry to track patients to ensure appropriate treatment and follow-up. Although there is variation in how the model has been implemented, to be effective, it must incorporate five basic principles into the design:

- Patient-centered team care
- Population-based care
- Measurement-based treatment
- Evidence-based care
- Accountable care

Patients in most traditional primary care practices are not screened consistently for behavioral health conditions. When a potential issue is identified, patients are often referred to an outside behavioral health professional for care, as many primary care physicians are not comfortable managing these conditions. Not only is this inconvenient for patients, but it often is difficult for them to access behavioral health providers.

The collaborative care model ensures that patients are routinely screened using standard screening tools and a care plan is developed by a team that includes behavioral health clinicians and the primary care physician as well as a consulting psychiatrist. For the most common behavioral health conditions, care remains within the primary care office. The program removes the historical division between the medical and behavioral health professional and introduces a patient-centered approach that provides access to the right specialists and a coordinated approach to care.

The approach has been tested in many settings. One of the most recognized is the IMPACT (Improving Mood: Providing Access to Collaborative Treatment) model, tested through a

randomized controlled clinical trial, with over 1,800 adults in 18 diverse primary care clinics. The study demonstrated that the IMPACT model doubled the effectiveness of “typical” care for depression, while also lowering the cost of care—saving up to \$6 for every \$1 spent on the program.^{50,51} Over 80 randomized controlled trials have demonstrated the effectiveness of this approach when compared to usual care in a variety of populations with common mental disorders such as depression and anxiety.

2. There is increased recognition of the value of the consultation-liaison model for supporting the management of patients on inpatient medical and surgical units with comorbid behavioral health conditions. Many studies have shown that patients with behavioral health comorbidities have longer lengths of stay compared to patients without these comorbidities. Supporting inpatient clinical teams with behavioral health expertise can mitigate some of this impact on length of stay. The most compelling evidence comes from studies that have implemented *proactive* programs that, early in the admission process, identify those patients likely to require a behavioral health intervention. The consult-liaison team includes prescribers (psychiatrists and/or psychiatric nurse practitioners) who focus on the “consult” function—evaluation and medical management of the patient. The team also includes other professionals (e.g., licensed clinical social workers, specially trained nurses) who focus on the “liaison” functions. These liaison roles include providing ongoing nonpharmacologic support, such as focused therapy and care coordination for the patient, and training/support for the care team, which is often challenging in managing these patients. Studies of such models have shown more prompt care, a lower rate of complications, reduced length of stay, and improved health professional satisfaction.⁵²

core components of evidence-based treatments for some complex disorders, such as post-traumatic stress disorder (PTSD).⁶¹ Cultural competency in behavioral health care is also important and goes beyond translation services or multilingual professionals. The *DSM-IV* included the Outline for Cultural Formulation (OCF), a framework for clinicians to organize cultural information that might be relevant to diagnosis and treatment. The framework was a major advance in how we

thought about delivering effective, appropriate behavioral health care, but its adoption in clinical practice was limited. The more recently developed *DSM-5* added an accompanying tool, the Cultural Formulation Interview (CFI), that helps physicians implement the concepts behind the OCF and aids in data/information collection.⁶² As with any new tool or protocol, its potential impact will only be realized if behavioral health professionals receive adequate training and education.

Early Intervention for Psychosis

OnTrackNY is a coordinated specialty care program in New York state for adolescents and young adults who are experiencing symptoms of a first psychosis, such as hallucinations (e.g., hearing or seeing things that don't exist) or paranoid delusions. The program is one of several created to build upon findings from the RAISE project (see page 14), which studied coordinated specialty care for first episode psychosis (CSC-FEP). Programs similar to OnTrackNY have been developed in other states, including California, Ohio, Oregon, and Virginia.⁵⁵

A 2015 study of more than 300 individuals enrolled in the program found that after three months of treatment, hospitalizations decreased from 70% to 10% and employment rates increased from 40% to 80%. In addition, improvement in Global Assessment of Functioning (GAF) scores was maintained for 12 months.⁵⁶

Some models have viewed the concept of “early intervention” broadly, even treating pregnant mothers with depression, anxiety, or addiction problems to improve the future health of mother, baby, and an entire family. This care model is based on evidence that the mental health status of a mother can have a profound impact on mental health outcomes in her child.⁵⁷

In addition to early intervention, a longitudinal care model can make a meaningful difference in individuals' long-term mental health and well-being and their physical health. For example, transitioning psychiatric inpatients out of hospitals can be challenging, and a “step” process should be considered—potentially placing the patient in an “intermediate” care setting with dedicated case management and support if the transition directly home creates meaningful risk of readmission or relapse. Intensive outpatient programs (IOPs) or partial hospitalization programs (PHPs) provide treatment support in a supervised setting while the patient lives at home or in a supervised residential facility. Following the patient for “maintenance care” is also crucial, helping to ensure a patient succeeds in the long term. This can include long-term care oversight by a health professional, enrollment in support programs to ameliorate social determinants of health, and teaching self-care.

■ Technology-enabled models

Technology-based tools are creating new behavioral health care modalities, distributing health and health care information, improving diagnosis, and expanding/extending access to care. Some industry experts believe that digital technology has the potential to make a greater impact on behavioral health than in other areas of medicine, in part because it removes barriers to access specific to behavioral health care. This approach can make care highly scalable and portable, which addresses the shortage of health professionals, and can create a more private experience of receiving care in one's own home, which may help more reluctant or stigmatized individuals to seek care.

One digital health application is telepsychiatry or telemental health. It can be used in two ways: physicians can consult a psychiatrist, or patients can interact with a psychiatrist, psychologist, or behavioral health professional, both in real time. In the physician-to-psychiatrist application, the psychiatrist may be able to interact with the patient via video to aid in assessment, but it is ultimately in the service of the patient's referring physician. In the patient-to-psychiatrist application, the clinician is evaluating and treating the patient directly, not through another physician. Treatment can include medication but can also involve psychotherapy, cognitive behavioral therapy, and other evidence-based nonpharmacologic treatments.

Both types of platforms increase access to behavioral health professionals, particularly for rural populations, pediatric/geriatric populations, those presenting very specific illnesses or disorders, and those who wish to seek care in the privacy of their own home. To build the physician-to-psychiatrist platform in an emergency department, inpatient unit, or physician office, health systems can contract with external telepsychiatry companies. Studies have shown an improvement in access, though some barriers remain—including privacy concerns, language/translation discrepancies, and inadequate reimbursement.⁶³ For the patient-to-behavioral health professional model, individuals can access services through their computer or download a variety of mobile applications. Some insurance companies offer virtual behavioral health as well.

Digital diagnosis capabilities are expanding, whether operated via the internet or mobile applications. These tools involve natural language processing and/or facial recognition. Using artificial intelligence-driven tools, a patient's tone of voice and inflection points, cadence of speech, word choice, and facial expression, as well as other personal and clinical inputs, are considered by an algorithm, and a potential diagnosis is returned. As discussed in last year's BRAHG report, *Separating Fact from Fiction: Recommendations for Academic Health Centers on Artificial and Augmented Intelligence*, such tools can help augment a physician's understanding of the patient's condition and help physicians reach a diagnosis.

Treatment is also going digital through internet and/or mobile application-enabled platforms. In one type of model, behavioral health professionals have designed an interactive treatment platform but do not interact with patients directly. This is widely referred to as Internet Cognitive Behavioral Therapy (iCBT). See sidebar, *The Value of iCBT Programs*.

■ Addressing the workforce shortage

As was mentioned in the introduction and current state overview, we are experiencing a significant shortage of behavioral health professionals—psychiatrists as well as other trained clinicians and social support professionals. Health systems, advocates, and policymakers can help close the gap in several ways.

o Growing the supply of psychiatrists:

Historically, it has been difficult to draw medical students and residents to psychiatry for

a variety of reasons, including: reimbursement and salaries that lag behind other specialties, the siloed nature of the specialty, and the challenging complexity of patients with behavioral health conditions. Recently, potentially driven by the supply/demand imbalance, psychiatrists' annual salaries rose to an average of \$237,000 in 2018, which is 16% higher than the previous year, according to a health care staffing firm.⁶⁵ A 2018 survey found that psychiatrists are the fourth “happiest” physician specialists, behind ophthalmologists, orthopedists, plastic surgeons, and pathologists (and tied with dermatologists).⁶⁶

Likely aided by the rise in salary, interest in psychiatry has grown in the past several years as evidenced by the increase in filled first-year residency slots. In 2018, 1,740 first-year positions were filled, with only 20 vacant positions remaining.⁶⁷ However, we still face a bottleneck. Even if all the slots were filled, they would not be enough to make up the gap we are already experiencing, much less the projected gap from anticipated retirements over the next several years. See Figure 5 on page 10. Furthermore, fellowships and specialty training programs are underfunded, which does not encourage health systems to offer them. The lack of meaningful salary differential once completed does not encourage many psychiatrists to pursue the additional training.

Advocacy for additional government funding, as well as finding other sources of financial support, will be necessary to clear the bottleneck and boost the pipeline of psychiatrists. In addition, the psychiatrists we do train should practice team-

The Value of iCBT Programs

Internet Cognitive Behavioral Therapy (iCBT) programs provide web and mobile application-based access to information and materials that teach users core cognitive and behavioral skills that would be encouraged through traditional, face-to-face cognitive behavioral therapy. Cognitive skills might include the ability to recognize and modify negative thoughts or “cognitions,” while behavioral skills might include problem-solving strategies or behavioral activation.⁶⁴ Many of these programs

are structured in modules with accompanying “homework” to complete in between modules. Most programs are structured for the individual user. However, some include peer-to-peer communication and feedback options. iCBT is highly scalable and therefore aids in increasing access to behavioral health care. It also appeals to patients who are hesitant to seek care in the traditional care setting or who have limited time.

based, collaborative care and learn new practice approaches such as telepsychiatry in order to “leverage” what will likely always be a limited number of psychiatrists.

o Leveraging a range of trained nonphysicians in alternative staffing models:

Many are testing and using models that employ a mix of behavioral health professionals to address the undersupply of psychiatrists. These health professionals include:

- Clinical Psychologists
- Master’s-prepared providers: Licensed Clinical Social Workers, Marriage and Family Therapists, and Licensed Professional Clinical Counselors
- Physician Assistants, Nurse Practitioners, and Nurses (RNs)
- Licensed Mental Health Workers
- Pharmacists
- Public health- and population health-centered workers (versus fee-for-service physicians)
- National Certified Peer Specialists
- Specialty-trained Primary Care Physicians and Specialists who can/are willing to expand their capabilities and scope of care to include behavioral health care.

See sidebar, *Non-psychiatrist Behavioral Health Care*.

o Advancing training programs:

Proper training is essential in developing high-quality behavioral health clinicians. Not all programs are effective in providing comprehensive training. For example, one study found that two-

thirds of clinical psychology training programs and 61% of social worker training programs do not require didactic and clinical supervision for any evidence-based therapy.⁶⁹

In the United Kingdom, the National Health Service sponsors a program called Increasing Access to Psychological Therapies. This program has demonstrated that college undergraduate students can be trained to provide effective cognitive behavioral therapy for depression, anxiety, and other common mental health problems, dramatically increasing the availability of such evidence-based treatments.⁷⁰

Academic health centers can help build and refine the components of training for more traditional behavioral health professionals, as well as other groups of health workers mentioned previously. Training should include how to prepare for present-day challenges and understand new care models and tools. As with other health professional specialties, training programs and competency requirements can vary by institution, and more standardized programmatic and competency requirements would help ensure more consistent care across the country. In addition to formal training, programs require additional on-site clinical experience. Academic health centers are well positioned to offer a variety of practicum sites (inpatient, outpatient, primary care, specialty, etc.).

As social determinants of health are increasingly identified as influencing health and behavioral health, medical school and residency training could benefit from additional public health

content. This is likely to be most effective in both the classroom setting as well as incorporated into real-world experiences.

There is also an opportunity to extend basic behavioral health training to general health and medical professionals, so they are more prepared when encountering a patient who may present a behavioral health issue, and encourage “holistic” care, bridging the existing gap between behavioral and medical health care.

Academic health centers and accreditation institutions should consider new certifications for social workers and other nonphysician health professionals to expand and strengthen advanced training in behavioral health and entice more health professionals to specialize in the area.

While it is impossible to predict the exact number of behavioral health professionals needed in 20 years by subspecialty/degree/certification, the deficits are so severe across all that we would benefit from any feasible level of expanded training and education.

■ Addressing the bed capacity shortage

It is unlikely that tens of thousands of inpatient psychiatric beds can or will be added in the near- or long-term, either in a dedicated psychiatric hospital or general acute care hospital. However, other care settings and modalities for diagnosis and treatment, many of which are less costly than building acute psychiatric inpatient capacity, should be considered. These include:

- Telehealth/telepsychiatry

- Alternative access points, i.e., schools, mobile crisis teams, psychiatric emergency departments (typically next to a “mainstream” ED)
- Intensive outpatient care (IOP)
- Partial hospitalization program (PHP)
- Residential care

See Figure 8, *Spectrum of Behavioral Health Settings*.

■ Reducing emergency department boarding

The Joint Commission defines emergency department boarding as “patients being held in the emergency department or another location after the decision to admit or transfer has been made.”⁷¹ The prevalence of boarding has become a national problem. In a 2008 survey of emergency department directors conducted by the American College of Emergency Physicians, 79% reported boarding psychiatric patients in their emergency departments, and 62% reported that there are no psychiatric services involved with the patient’s care while they are being boarded,⁷² which can lead them to deteriorate further.

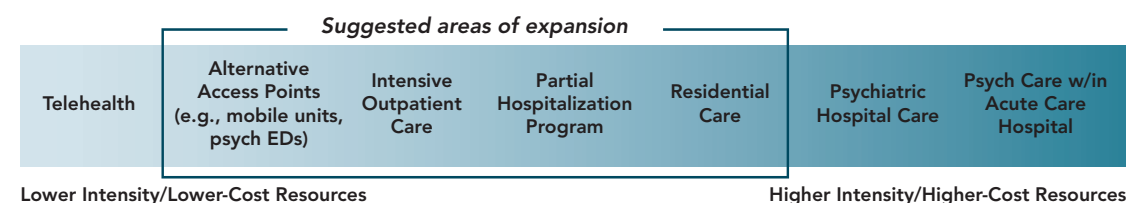
Crisis Now is among the organizations trying to alleviate this situation in emergency departments across the nation. The program was founded on the following principals: “recovery orientation, trauma-informed care, significant use of peer staff, a commitment to Zero Suicide/ Suicide Safer Care, strong commitments to safety for consumers and staff, and collaboration with law enforcement.”⁷³ Crisis Now offers call centers, 24/7 mobile crisis units, and crisis stabilization

Non-psychiatrist Behavioral Health Care

One model incorporates measurement-based care (MBC). This model, often used with medical illnesses but only utilized in an estimated 20% of psychiatric care, incorporates a team-based behavioral health treatment approach. In one study, psychiatric mental health nurse practitioner (PMHNP) residents partnered with the Birmingham Veterans Affairs Medical Center. The PMHNP residents were trained to consistently administer the Patient Stress Questionnaire (PSQ), an MBC tool that assesses

depression, anxiety, trauma-related symptoms, and alcohol use/abuse (see page 20 for more details on such questionnaires). In a two-year period, the PSQ scores trended downward, and depressive and anxiety symptoms decreased significantly. This model did not require additional psychiatrists, utilized a simple MBC tool, and showed improvement in patients’ psychiatric symptoms.⁶⁸

FIGURE 8 | Spectrum of Behavioral Health Settings



Source: Perspective from The Blue Ridge Academic Health Group and The Chartis Group.

programs for those who need “sub-acute” care and not a medical inpatient stay. The program can substantially reduce costs from a trip to the emergency department and possibly from hospitalization by diverting someone with a behavioral health crisis to a community-based setting that can manage the crisis. Furthermore, it provides more timely access to the specialized care that someone experiencing a crisis needs.

■ **Consistently using screening and outcomes measures**

As with all medical and health care disciplines, standardized diagnostic measures/thresholds and metrics for tracking outcomes help ensure consistent care and the ability to accurately compare outcomes.

There are well-established objective and standardized measures of symptom severity in behavioral health, including Patient Health Questionnaire (PHQ) 2 and PHQ 9 to test for depression, and Generalized Anxiety Disorder (GAD) 2 and GAD 7 to test for anxiety. See sidebar, *Examples of Behavioral Health Screening Tools*.⁷⁴

Screening tools are important components of evidence-based collaborative care models. However, some researchers have found that these tools are not consistently used in practice. One reason is that screening tools identify patients who would benefit from treatment, and many practices may not be equipped to provide that treatment. Another reason is that some practitio-

ners may be reticent to admit that they are not effectively treating all of their patients. Finally, practices may not be willing or able to make the changes in workflows to efficiently implement these screening tools. To address this challenge, health professionals and health care organizations would benefit from training on how to use these tools as part of a measurement-based practice approach,⁷⁵ combined with training on treating patients who are identified by these tools as having behavioral health needs. Organizations or departments within an organization can also potentially increase their use by including them in established patient care protocols.

Beyond improved assessment tools and protocols to identify issues requiring treatment, tools to track a patient’s progress (or recovery for a substance use disorder patient) are severely lacking. These types of measures would benefit patients, families, physicians, researchers, and insurers to better understand the efficacy of treatments on various types of patients and use that information to inform treatment advances.

■ **Bringing together research, advocacy, and philanthropy**

There are some notable examples of multiple parties coming together, often with the support of an AHC, to form a foundation or program that supports behavioral health services, research, and advocacy. AHCs can serve as the convener of such groups or can support a collaborative group more tangentially through research or other areas of support. See sidebar, *The Autism Alliance of Michigan*.

■ **Capturing economic opportunities**

As discussed earlier, treating behavioral health services as a traditional, stand-alone service line is myopic and suboptimizes (or doesn’t recognize) the true value that behavioral health care offers by improving the quality and cost of care, not only for patients with behavioral health conditions, but also those with medical conditions. Behavioral health services can be financially sustainable for health systems if they are structured and treated as key support services for patients across many medical disciplines. See sidebar, *A Positive Return on Investment*, on page 22.

The Autism Alliance of Michigan

The Autism Alliance of Michigan (AAoM) began in 2009 as a collaborative of multiple stakeholders, including health systems, universities, private citizens, the business community, and a newly elected lieutenant governor, whose daughter had recently been diagnosed with autism. Their common mission was to increase access to, and funding of, critical and evidence-based interventions for children with autism. Through this collective effort, insurance legislation passed in 2012. It mandated that any for-profit, commercial, health management organization or nonprofit health insurance company regulated by the state of Michigan must provide an autism benefit to its members covering services related to the diagnosis and treatment of autism spectrum disorders. Given its success, AAoM recognized the impact a statewide organization—acting in a liaison role across multiple stakeholders—could bring to other autism reform efforts. AAoM chose to focus its efforts on education, employment, and independent living. It has an active fund-raising team to support advocacy, community training, and job placement for those with autism, thus bringing services and support to Michigan residents at no cost. AAoM’s core program is “Navigator.” The program provides professional consultation, case management, and connection to services and support—regardless of the question, concern, or life phase of the individual or family seeking help. A medical advisory board, consisting of 10 to 12 MD/PhDs from health systems across the state, helps guide AAoM and educates health care professionals about available resources. To date, AAoM has helped thousands of families and placed over 200 employees with autism in jobs with 75+ employers and a retention rate of 96%.⁷⁶

The programs in which investing in behavioral health could have the greatest positive financial impact include:

- o *Primary care collaborative models:* Recently, the Centers for Medicare and Medicaid Services (CMS) introduced new collaborative care (CoCM) and behavioral health integration (BHI) codes. As a result, primary care practices can now bill for a variety of services that support the ongoing operation of a collaborative care program. As noted previously, commercial insurers are increasingly reimbursing for these services as well.

Examples of Existing Standardized Behavioral Health Screening Tools⁷⁴

Patient Health Questionnaire (PHQ-2)

Over the last 2 weeks , how often have you been bothered by the following problems?	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	+1	+2	+3
2. Feeling down, depressed or hopeless	0	+1	+2	+3

Generalized Anxiety Disorder (GAD-2)

Over the last 2 weeks , how often have you been bothered by the following problems?	Not at all	Several days	More than half the days	Nearly every day
1. Feeling nervous, anxious or on edge	0	+1	+2	+3
2. Not being able to stop or control worrying	0	+1	+2	+3

For each tool, a diagnostic threshold or “cut-off” is based on the total points.

Source: PHQ Screeners.⁷⁴ PHQ scale: Copyright by Pfizer Inc.; all rights reserved. GAD scale: <https://www.ncbi.nlm.nih.gov/pubmed/16717171>.

o Identifying high-risk patients: Support for management of inpatients with behavioral health comorbidities through proactive consult-liaison programs, particularly those that focus on early identification of high-risk patients, can reduce length of stay. This not only reduces the overall cost of the inpatient stay but also could free up capacity for additional volume. See sidebar, *A Positive Return on Investment*.

o Specialized inpatient and outpatient programs: Many AHCs with a significant portfolio of behavioral health and neuroscience research have developed “destination” programs that have a regional or even national draw. These can be highly profitable, particularly those programs that cater to insured and cash-pay patients.

o Value-based care: For organizations with a significant commitment to value-based care, integrating behavioral health into the care system, particularly into primary care practices, has shown to be cost-saving. One place to start would be offering expanded services to AHC employees if it is self-insured.

o Telemedicine health consultation programs: A number of AHCs have established robust provider-provider telehealth consultation programs to improve access to academically based mental health experts for primary care providers in their own organizations or in their regional referral areas. Such programs have been particularly successful in the area of child psychiatry (e.g., the

MCPAP program in Massachusetts or the PAL program in Washington State).

o Contracts with local- or state-run institutions: Some AHCs provide contracted services to public agencies, which can offer academic departments an additional source of revenue with positive margins. For example, the University of California, San Francisco provides behavioral health services to the county jail.

■ Understanding the role of academic health centers

Academic health centers and health systems are uniquely positioned to lead the nation in improving behavioral health and well-being. The breadth and commitment to multiple initiatives that are essential in addressing improvement in behavioral health across our society include:

o Advancing education: AHCs should consider evolving training programs in behavioral health, per the previous workforce section in this report, both for behavioral health professionals as well as general medical and health professionals who may be interested/willing to extend their scope of practice.

To help address the opioid crisis, AHCs should consider creating addiction fellowships, medication-assisted treatment (MAT) training in EDs and primary care practices, and more comprehensive training for those specializing in chronic pain management and management of patients with opioid use disorder (OUD).

BIT service had an average LOS of 6.7 days, as compared to an average LOS of 7.3 days for patients without the service. If analyzed on its own, the BIT model was cost neutral. However, when the Yale staff accounted for additional patient backfill enabled by the shorter LOS, the model showed a return on investment of 1.7 to 1, even with the additional personnel costs. Furthermore, the medical staff felt better equipped to treat patients presenting with a behavioral health issue, and 9 out of 10 nurses rated the BIT service favorably. The program has subsequently been rolled out to all medical units at Yale New Haven Hospital.^{77,78}

o Furthering research: This report has primarily focused on two of the three aspects of the AHC tripartite mission—clinical care and training. However, research—the third leg of the AHC academic foundation—is of vital importance in addressing the crisis in behavioral health. Over the past decade, the pharmaceutical industry has largely withdrawn from neuroscience and behavioral health drug development. This leaves the academic health system with the primary (or sole) responsibility for basic and translational research to support the development of innovative new or improved diagnostic tools and treatments. Fortunately, the academic research in this field is thriving. Even if this research has not yet delivered solutions for the current behavioral health crisis, the science from AHCs is our best hope for transforming outcomes in the future.

As was mentioned in the *Overview of the Current State* section, advances in science in behavioral health—even just in the past two decades—is astounding. While this science does not resolve the urgent problems of access, quality, cost, and stigma, research in AHCs can yield a better understanding of mental illness and its etiology and identification of opportunities for prevention. Ultimately, to successfully bend the curve for costs and outcomes for people with SMI, we must move upstream to reduce the incidence or severity of the disorders through prevention. Research has already demonstrated the potential reduction of mood disorders and substance use disorders through early intervention. AHC research is our best hope for identifying risk and resilience markers and developing preventive strategies to reduce SMI.

o Developing a plan to include and integrate behavioral health into the rest of the health system: All health systems, whether academic or community systems, offer a unique array of clinical services, complement of professionals, and relationships with other health care organizations. The arrays of care provision across various AHCs are typically based upon their overall strategy and market dynamics. Therefore, prescribing a “one-size-fits-all approach” to investment in behavioral health simply would not be appropriate or universally effective. Rather, a health system

should develop a behavioral health strategy that is appropriate for its setting, opportunity, and capacity. Program development nevertheless should include the burden of behavioral health conditions on its overall patient population, its level of commitment to population-based health and value-based care, and the impact and opportunity support required for its health professionals community, both for behavioral health and non-behavioral health professionals.

o Integrating clinical information: Unfortunately, many behavioral health providers continue to use paper records to document care. This long-standing documentation practice poses a significant challenge for health system providers who depend upon an integrated electronic medical record to share information about patients and work collaboratively across disciplines. Transitioning behavioral health records to the same electronic systems will be imperative for true integration, though privacy concerns present some continuing challenges.⁷⁹

o Organizing and disseminating effective interventions: There are many effective prevention approaches and interventions developed by organizations/institutions such as the Veterans Affairs Administration (VA), the CDC, and the Substance Abuse and Mental Health Services Administration (SAMHSA). Unfortunately, the dissemination of these tools has been limited, and some are similar and largely duplicative. AHCs have the opportunity to take the lead in organizing the existing tools, coordinating efforts to develop new tools, and overseeing the process for dissemination. They can also provide leadership in health services research to determine the most appropriate ways to identify patients at risk and determine the most cost-effective interventions.

o Applying a population health perspective: The broad-reaching impact of behavioral health on individuals and society necessitates a population-health approach. AHCs can and should explore value-based care and reimbursement models around behavioral health. They could then provide leadership in transitioning from entrenched fee-for-service reimbursement payer arrangements that make it difficult to realize the full value of behavioral health care.

A Positive Return on Investment

There are several examples of academic and other health systems investing in behavioral health and incorporating services into parts of their health system, and subsequently realizing a positive return on investment and/or a reduction in resource use and costs. Yale New Haven Hospital piloted a proactive, embedded consult-liaison model where a psychiatrist rounded with a hospital medical team on a daily basis, providing consultation in real time. When this pilot led to a shorter length of stay (LOS), a multidisciplinary embedded behavioral intervention team (BIT) was introduced to support the medical team and all floor staff. Over the course of nearly one year, patients with the

o Leveraging a variety of partnerships to advance care model exploration, research, and care delivery dissemination: AHCs should explore partnerships and develop and implement programs in collaboration with surrounding community entities. These efforts will likely include:

- Building trust with the community—becoming a trusted partner as opposed to a formidable competitor
- Partnering with schools for early intervention
- Working with public and private schools to build afterschool programs for adolescents
- Partnering with prenatal programs
- Partnering with religious institutions

- Working with community organizations to develop community-based crisis management programs, such as mobile crisis units described in the Crisis Now report
- Committing to investments in socioeconomic influences, such as low-income housing, job creation, family support, etc.
- Building or partnering with health professionals training programs to build a broader workforce
- Partnering with digital health companies seeking to improve access and outcomes through technology and offering research capabilities and/or serving as a pilot site.

II. Conclusions

Academic health centers have a unique opportunity to play a critical leadership role in addressing the behavioral health crisis in our country. By exploring and advancing new approaches to care, creating new partnerships across our communities and with other AHCs, and investing in training, care models, and research, AHCs can build the essential foundations for innovative, comprehensive, and better health care for our country. Delivering on these opportunities will greatly and beneficially impact overall health and wellness in all of our communities.

Academic health system leaders should consider the following action items:

- Prioritize behavioral health within our organizations. Communicate and demonstrate that leadership is committed to expanding, improving, and advancing behavioral health services for employees and the communities we serve.
- Develop a behavioral health strategy and business plan that meet the needs of our patients and address priority areas identified by our organizations and our local community entities. We must fully understand the economics of investing in behavioral health services and how this investment will impact the costs and outcomes of the overall care provided to our patients and the overall health of the broader community.
- Develop an integrated behavioral health program as part of our employee health benefits, including all university employees where possible. Adopt a collaborative care model, where most patients can be effectively treated in a primary care setting, and integrate behavioral health services into other medical services to improve outcomes and reduce costs. Use these programs as research opportunities by measuring outcomes and testing approaches in achieving effective and efficient population health management and value-based reimbursement. Leverage this knowledge to negotiate value-based care arrangements and better fee-for-service rates with commercial payers.
- Address the workforce shortage by advancing and expanding training and certification

programs, thus enhancing existing practitioners' capabilities in treating behavioral health issues while also growing the number of trained behavioral health professionals. Offer practicum sites for advanced clinical training to other training programs. Provide competency-based training and include exposure to the latest tools, technologies, and care models. Ensure that all in your programs understand the importance of consistently using leading screening support tools, treatment models, and tracking outcomes data. Provide system-based support (e.g., registries) to facilitate adoption of these tools.

- Identify and build alternative approaches to improve access. These may include telemental health, dedicated psychiatric emergency departments, and mobile behavioral health teams. Explore whether to build these programs or partner with other organizations that specialize in these services.
- Continue to invest in basic and translational research related to behavioral health, particularly as the pharmaceutical industry reduces funding to support this work. Ensure that behavioral health research is given appropriate recognition within your organization by sharing/celebrating discoveries and advances with employees and the surrounding community.
- Work in partnership with other health care systems to advocate for programs that address factors related to the social determinants of health, including low-income housing, schools and education programs, and employment opportunities.
- Advocate for policies that provide more comprehensive insurance coverage for behavioral health services, improved enforcement of existing regulations and policies, adequate networks of mental health professionals, and funding to expand availability and access to government-funded services shown to improve community-based, comprehensive mental health services.
- Learn from one another. Share your accomplishments and any challenges you've experienced with other AHC leaders. Consider building consortia or affinity groups to regularly discuss issues in behavioral health and health care.

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*All links accessible as of February 18, 2020.

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About the Blue Ridge Academic Health Group

The Blue Ridge Academic Health Group studies and reports on issues of fundamental importance to improving the health of the nation and its health care system and enhancing the ability of the academic health center (AHC) to sustain progress in health and health care through research—both basic and applied—and health professional education. In 23 previous reports, the Blue Ridge Group has sought to provide guidance to AHCs on a range of critical issues. (See titles, page 31.)

For more information and to download free copies of these reports, please visit www.whsc.emory.edu/blueridge.

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Report 20: *Synchronizing the Academic Health Center Clinical Enterprise and Education Mission in Changing Environments*, 2016.

Report 19: *Refocusing the Research Enterprise in a Changing Health Ecosystem*, 2015.

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