PRIORITIZING RESOURCE INVESTMENT IN THE PEDIATRIC BEHAVIORAL HEALTH SYSTEM OF CARE

How do we determine what services to invest in for pediatric behavioral health?

Overview

Behavioral health conditions are increasing in prevalence, especially among pediatric patients. In the US, 50% of all chronic mental illnesses begin by age 14, while 75% of mental illnesses start by age 24. However, access to resources for this patient population is incredibly scarce. Health systems struggle to identify where to direct their limited resources for best effect. They must address the general need for behavioral health services in the pediatric population while also providing a variety of services tailored to the specific needs of children and adolescents.

Analyze Access Challenges

Almost 7.7 million children (aged 17 and under) in the US have at least 1 treatable mental health disorder, but 50% of these children do not receive adequate treatment. This is not a new phenomenon; for years pediatric patients have faced obstacles, such as the stigma associated with behavioral health diagnoses, long wait times for appointments and shortages of specialty providers. As health systems attempt to bridge the gap between children with behavioral health needs and the scarcity of appropriate resources, organizations are challenged to prioritize the areas of greatest need.

Limited Access Indicators

Across the System of CARE there are ample opportunities to detect direct or indirect indicators of pediatric behavioral health needs. Although limited access is a nationwide issue, individual communities are impacted differently. For this reason, it is crucial to look for indicators of how limited access is affecting your pediatric System of CARE and use this knowledge to guide and prioritize when and where to act. **Table 1** highlights some of the indicators health systems use to identify market access challenges, potential contributors and possible solutions.

TABLE 1. INDICATORS OF PEDIATRIC BEHAVIORAL HEALTH ACCESS ISSUES

INDICATOR	POTENTIAL CONTRIBUTORS	POSSIBLE SOLUTIONS
Strain on ED due to large volume of pediatric behavioral health patients	• Lack of ambulatory access for behavioral health care services • Shortage of specialty providers for ED services • Delay in behavioral health care until patient is in crisis • Insufficient IP beds for pediatric psychiatric patients	• Offer teleconsults to EDs across the region (especially rural communities) to triage patients and provide specialized expertise. • Use teleconsults to reach patients in primary care settings and/or support primary care physicians managing patients with behavioral health conditions. • Create pediatrician-driven collaborative care with behavioral health experts. • Ensure same-day care for patients in crisis. • Evaluate opportunities to expand access and/or capacity for IP beds.
Increase in adolescent suicide and substance use disorder	• Lack of specialty providers available for patients in need of mental health care • Stigma of mental health conditions causes hesitancy to seek help • Routine mental health screenings not performed	• Provide community education and stigma-reducing initiatives at community events. • Develop mental health wellness strategies. • Engage nonclinical professionals (social workers, community leaders) to build support networks. • Increase mental health screenings in primary and specialty care offices. • Offer mental health screenings within schools.
Admission to medical beds because pediatric psychiatric beds are not available	• High rate of admission because ED staff inadequately trained to manage psychiatric patients • Prolonged length of stay due to limited ambulatory resources • Shortage of appropriate IP beds to accommodate patients' needs (eg, complex medical comorbidities)	• Evaluate IP capacity in pediatric behavioral health unit to ensure adequate bed numbers and properly prepared staff. • Build relationships with community organizations that can provide postdischarge services. • Consider adding crisis services and/or a crisis unit, allowing patients to receive treatment but stay fewer than 23 hours.
High rate of referrals from schools and law enforcement for urgent or emergent evaluation	• Lack of crisis services for the pediatric community • Insufficient pediatric crisis training for law enforcement • Shortage of adequate school-based behavioral health services • Ineffective engagement of primary care physicians in managing mild to moderate conditions	• Partner with law enforcement to appropriately divert patients from the legal system to behavioral health care providers. • Collaborate with community health care agencies, such as Federally Qualified Health Centers, to provide services to families in need. • Work with local schools to provide mental health services on campus. • Support collaborative care models with pediatricians.
Elevated rate of readmission or recidivism for pediatric patients with behavioral health needs	• Lack of transitional program after inpatient or intensive outpatient services discharge • Struggle for families to keep up with necessary appointments, therapies, etc • Shortage of specialty providers creates challenges for scheduling postdischarge services	• Develop comprehensive discharge plans to ensure access to follow-up and maintenance care. • Identify action plans for inpatient transfers and admissions to intensive day programs or partial hospitalization programs. • Leverage home as a site of care: — Offer digital therapeutics to supplement existing therapy. — Deploy virtual options for the patient and/or family to interact with the provider. — Incorporate families into behavioral health care plans and solutions. • Offer family support, such as counseling and respite care.

Evaluate the Unique Needs of Your Market's Patient Population

Armed with a better understanding of where access limitations exist, it is crucial to consider what factors impact the pediatric population's need for services. There is a high rate of variability in what a care pathway may look like for a pediatric patient with behavioral health needs. This is due, in part, to the following factors.

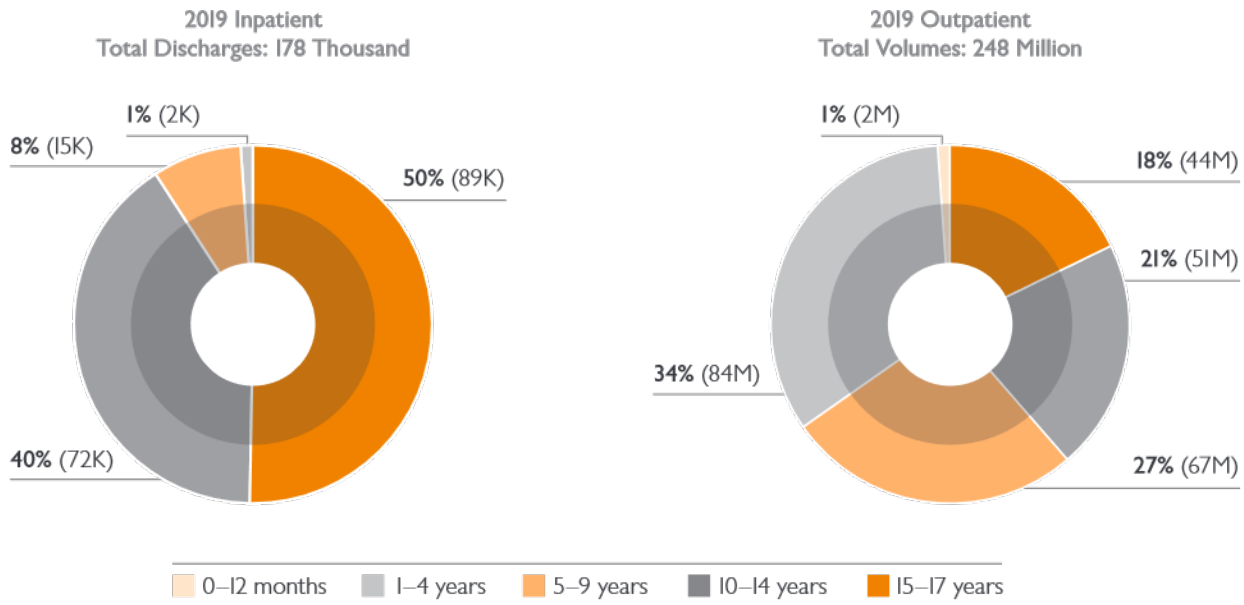
Diagnosis/Disease

Although many diagnoses fall into the classification of pediatric behavioral health conditions, they each contain their own nuances in the care they require. For instance, a pediatric patient with a developmental disorder will require very different care than a peer with an eating disorder diagnosis.

Age

Throughout the pediatric population, behavioral health service utilization may look different depending on the age of the patient. For example, behavioral problems are more common among children aged 6 to 11 than among children who are younger or older. Acuity level and site of care utilization in pediatric behavioral health also differ greatly by age. **Figure 1** demonstrates the significant differences in inpatient and outpatient utilization by age for pediatric behavioral health in 2019.

FIGURE 1. AGE DISTRIBUTION OF PEDIATRIC BEHAVIORAL HEALTH UTILIZATION



Note: Analysis includes 0–17 age group and the pediatrics behavioral health service line. Percentages may not total 100% due to rounding.
Sources: Impact of Change®, 2019; HCUP National Inpatient Sample (NIS). Healthcare Cost and Utilization Project (HCUP) 2016. Agency for Healthcare Research and Quality, Rockville, MD; OptumInsight, 2017; The following 2017 CMS Limited Data Sets (LDS): Carrier, Denominator, Home Health Agency, Hospice, Outpatient, Skilled Nursing Facility; Claritas Pop-Facts®, 2019; Sg2 Analysis, 2019.

Social Determinants of Health

Social determinants of health influence the level and extent of a child's behavioral health needs. Studies show that children living in lower-income households have a higher prevalence of parent-reported diagnoses of mental, behavioral and developmental disorders (MBDDs). A study by Cree et al estimated that 22.1% of children aged 2 to 8 living below 100% of the federal poverty level have an MBDD. However, less than 15% of children living in poverty with mental health needs actually receive care.

Complexity and Comorbidities

Pediatric patients with behavioral health conditions are likely to have comorbidities, which often need to be considered when developing service offerings. A 2019 study published by Ghandour et al found that roughly 75% of those aged 3 to 17 who have depression also have anxiety, and almost half of children aged 3 to 17 who have depression have behavioral and/or conduct problems as reported by parents. Additionally, around 20% to 30% of children who have autism spectrum disorder will develop epilepsy by adulthood.

Reimbursement

Developing an effective and financially sustainable service can be challenging in markets predominantly reimbursed through Medicaid. Understanding local reimbursement and the variability in rates based on the location of services provided is essential. It is worth noting that children under the age of 4 with developmental disorders typically have somewhat better coverage for services.

Implement Solutions Based on Unique Indicators and Patient Population

As health systems address limited access to pediatric behavioral health care, organizations have identified innovative ways to provide services to children across sites of care. Within the System of CARE for pediatric behavioral health, each condition demands unique sites and services that pose their own challenges and benefits. The System of CARE framework can be applied to behavioral health conditions to help identify the essential services needed to support your patient population while also guiding institutional and market gap analyses. This information is key to defining necessary infrastructure investments, whether physical space, workforce or coordination among existing services. The following case studies highlight organizations that identified gaps in their markets, looked for potential contributors to these gaps and implemented solutions to meet the unique needs of their patient populations.

CASE STUDY | Eisenberg Elementary: The Life Health Center

CHALLENGE: During the 2013–2014 academic year, 2 years before the Life Health Center was developed, 6.8% of Eisenberg Elementary School's students had 6 or more behavioral referrals, totaling 556 referrals; almost 10% of students had 2 to 5 behavioral referrals.

CONTRIBUTORS: Lack of access and high social need: Eisenberg Elementary serves children from kindergarten to fifth grade in a low socioeconomic district where children are unfavorably impacted by social determinants of health. There are no family medicine or pediatric practices located within a 6-minute driving radius of the school.

SOLUTION: To improve access to care, the Life Health Center was established within Eisenberg Elementary through a partnership with Nemours/Alfred I. duPont Hospital for Children. The Life Health Center provides basic health care to students, including behavioral and mental health services, from 8:00 am to 5:00 pm. Eisenberg uses a multitiered system to match students to services that range from support from a teacher to help from a family crisis therapist. The school also analyzes behavioral referral data to identify which students may benefit from mental health services.

RESULTS: Following the development of the Life Health Center during the 2017–2018 school year, 1.86% of Eisenberg students had 6 or more behavioral referrals, totaling 97 referrals; and only 6% of students had 2 to 5 behavioral referrals. Additionally, suspension rates dropped by 80% to 90%.

Sources: Heath S. How school-based behavioral health addresses care gaps, SDOH. *Patient Care Access News*. May 21, 2018; Newman M. How Eisenberg Elementary's wellness center helped dramatically reduce disciplinary actions. *Delaware News Journal*. June 12, 2019; Bies J. Nemours, Life Health Center partner with Colonial to open elementary school wellness center. *Delaware News Journal*. April 19, 2018; Harry O. Eisenberg Elementary School website. Accessed November 2019.

CASE STUDY | Hasbro Children's Hospital: Medical/Psychiatric Program

CHALLENGE: Hasbro Children's Hospital inpatient medical/psychiatric unit and partial hospitalization program regularly experienced waiting lists with 45 to 90 children. These waiting lists were in part attributed to patients who were referred from some of the country's largest academic medical centers for the specialized care provided at Hasbro.

CONTRIBUTORS: The medical/psychiatric program offered by Hasbro Children's Hospital served children aged 6 to 18 years with co-occurring physical and mental health conditions. Bradley Hospital, with whom Hasbro was collaborating, was the only dedicated children's mental health provider in New England. Hasbro Children's partial hospital program was the only New England day treatment program for children with comorbid mental and physical conditions. Neither program had sufficient resources to provide care to all of the patients seeking these services.

SOLUTION: In 2016, Hasbro renovated and expanded both its inpatient and partial hospitalization programs for pediatric patients with medical and psychiatric needs. The inpatient program renovation resulted in an increase from 8 beds to 16 beds, including private and semiprivate rooms. The partial hospitalization program extended its capacity from 16 patients to 24 patients.

Sources: Berard P. Hasbro expands programs. *N Engl Psychologist.* January 1, 2016; Salit R. Hasbro Children's Hospital expanding its pediatric psych program. *Providence Journal.* October 7, 2015; Hasbro expands medical/psychiatric programs with Bradley Hospital. *RI Med J.* 2015;98:64; DerMarderosian D et al. *RI Med J.* 2016;99:21–23.

Sg2 Perspective

Identification of the unique needs in your market, paired with the knowledge of services that can be provided throughout the System of CARE, allows for a thorough assessment of gaps in the market and the potential opportunities for investment, development and/or partnerships for pediatric behavioral health care. Although indicators may not be universal across all pediatric patient populations, understanding which indicators to look for, evaluating what may be contributing to them and determining a solution based on the unique needs of your patient population are crucial when developing programs. Sg2 recommends considering the following strategic imperatives when developing new, or expanding existing, pediatric behavioral health services.

- **Understand your current and forecasted pediatric behavioral health population.** Leverage Sg2's data analytics, including the market and organizational level Impact of Change® forecast, to identify variation in patient populations based on age, disease and procedure. Locate patient populations that have forecasted growth.
- **Consider opportunities for virtual behavioral health services.** The use of virtual behavioral health care for the pediatric population can reduce the strain felt by specialty providers and improve access to quality care for patients in need. Virtual health can be leveraged to assist in assessment, treatment and monitoring across almost every site of care in the care continuum.
- **Look for opportunities to provide preventive care.** Although there are minimal financial incentives for offering preventive behavioral health care, educating children and families about mental health can equip them with the skills needed to identify symptoms and seek treatment before needing crisis care. Additionally, there is potential to avoid the cost of treating patients in the ED or inpatient facilities.
- **Leverage and support existing community and school-based resources**. Pediatric behavioral health services are crucial in the overall pediatric System of CARE, but it is imperative that organizations determine whether the patient population is large enough to support a new program or if it is beneficial to partner with community or government organizations that already exist.

Sg2 RESOURCES

- Report: *Behavioral Health Service Line Forecast 2019*
- You Asked: Child/Adolescent Partial Hospitalization and Intensive Outpatient Programs
- You Asked: Trends in Comprehensive Pediatric Autism Programs

Sources: Cree RA et al. *MMWR Morb Mortal Wkly Rep.* 2018;67:1377–1383; National Institute of Neurological Disorders and Stroke. Autism spectrum disorder fact sheet. August 2019; New pediatric psychiatric unit to open in C.S. Mott Children's Hospital. *Michigan Medicine News.* March 30, 2016; Lifespan. Medical psychiatric program at Hasbro Children's Hospital. Accessed November 2019; Centers for Disease Control and Prevention. Data and statistics on children's mental health. April 2019; Whitney DG and Peterson MD. *JAMA Pediatr.* 2019;173:389–391; Ghandour RM et al. *J Pediatr.* 2019;206:256–267.