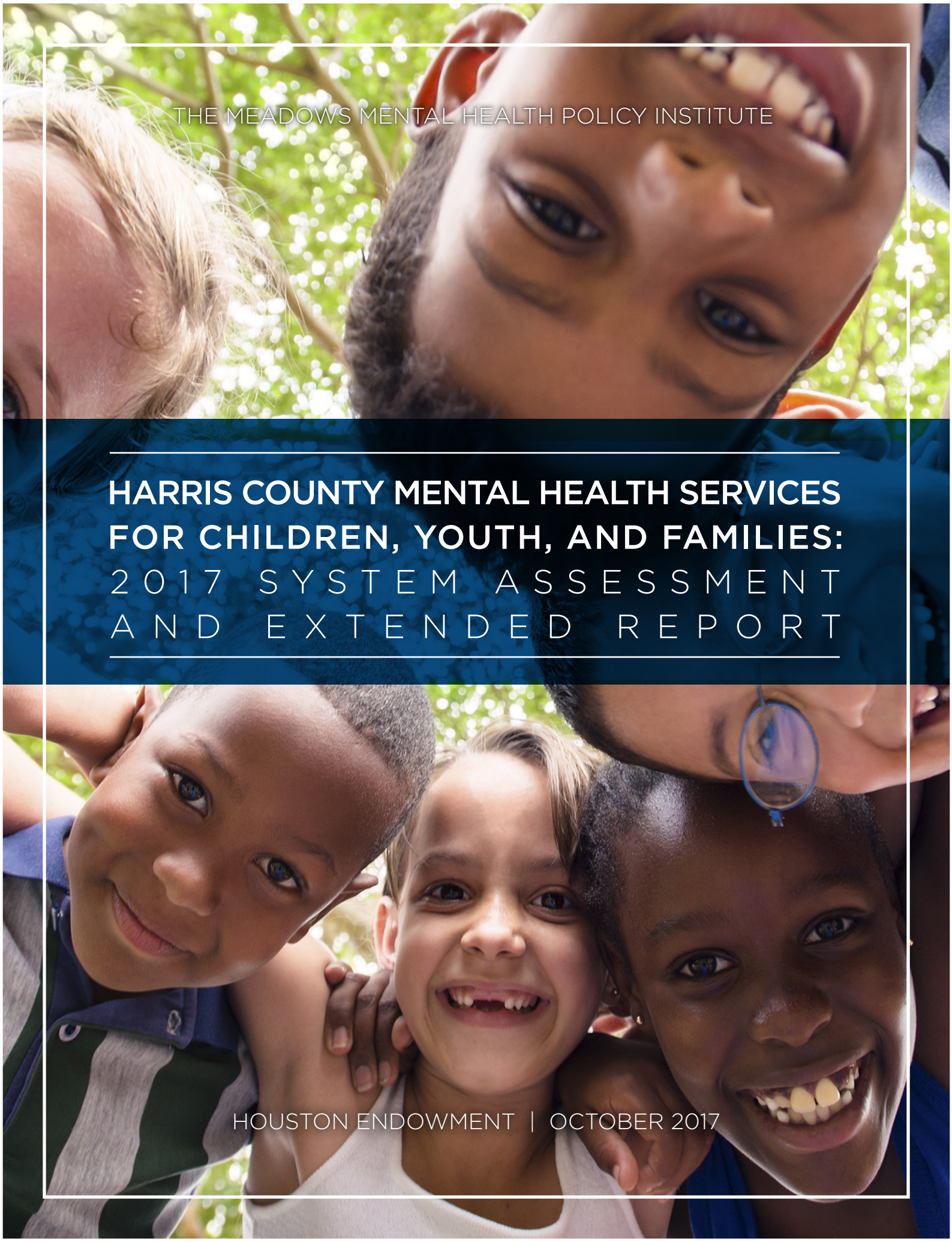


THE MEADOWS MENTAL HEALTH POLICY INSTITUTE

HARRIS COUNTY MENTAL HEALTH SERVICES FOR CHILDREN, YOUTH, AND FAMILIES: 2017 SYSTEM ASSESSMENT AND EXTENDED REPORT

HOUSTON ENDOWMENT | OCTOBER 2017

Contents

Acknowledgement

MMHPI is grateful to Houston Endowment for their generous support and partnership in developing and completing this report. The openness and insights of dozens of committed providers and leaders across Harris County contributed to the report, and MMHPI would like to provide a special note of thanks to the leadership of Mental Health America of Greater Houston. A complete list of individuals interviewed is provided in Appendix A of the expanded version of this report. We also wish to acknowledge the following MMHPI team members who contributed substantively to the report: Timothy Dittmer, Michelle Harper, Joe Johnson, Suki Martinez Parham, Peter Selby, Sam Shore, Kathy Sternbach, Kendal Tolle, Lisa Tomaka, Kelsi Urrutia, Kate Volti, Victoria Walsh, and Bill Wilson.

Executive Summary

Thanks to the generous support of Houston Endowment, the Meadows Mental Health Policy Institute (MMHPI) conducted a comprehensive assessment of health care system capacity for providing mental health services for Harris County children, youth, and families. Each year, one in three children and youth ages six to 18, and two in five youth, suffer from mental health and substance use disorders. In Harris County, this equates to just over 310,000 children and youth each year, including just under 250,000 with mild to moderate needs and just under 65,000 with severe needs, often referred to as children and youth with serious emotional disturbances, or SED.[1] Of those children and youth with severe needs, 35,000 live in poverty and 4,000 are at high risk of out-of-home or out-of-school placement.

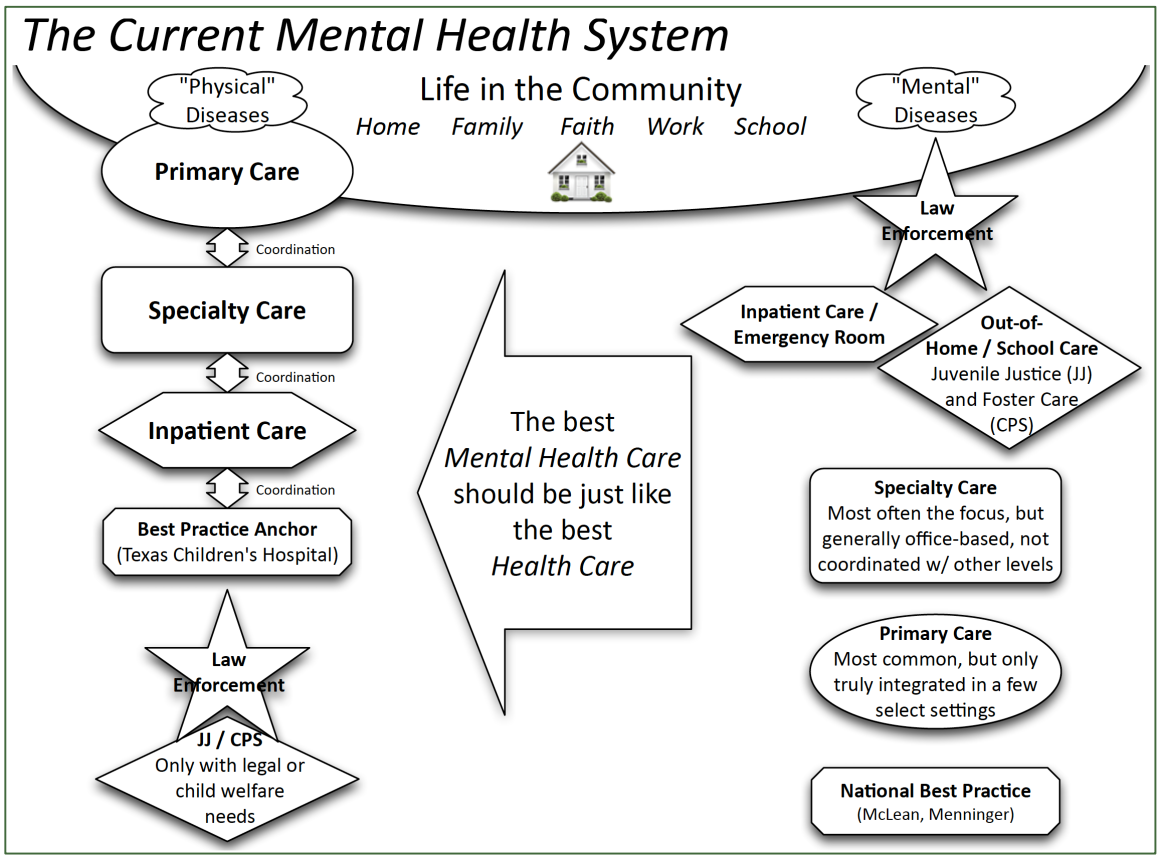
An "Ideal System of Care" for treating these conditions would have four main components:

- Component 1: Integrated Behavioral Health in pediatric primary care settings, serving those with routine needs related to behavior, anxiety, and depression. These conditions represent up to two-thirds of all pediatric mental health needs and affect about 200,000 children and youth in Harris County.
- Component 2: Specialty Behavioral Health Care for those with moderate to severe needs, such as complex depression, bipolar disorder, posttraumatic stress, and other disorders that require specialized intervention beyond the capacity of integrated primary care. About one-quarter of all pediatric mental health needs are classified as moderate to severe, which equals about 75,000 Harris County children and youth.
- Component 3: Rehabilitation Services for the 35,000 children and youth in Harris County with mental health needs so severe that they impair functioning across multiple life domains and require evidence-based rehabilitation in addition to specialized treatment of the underlying mental health disorder. The services should include intensive home and community-based services for the approximately 4,000 children and youth with the most severe needs and who face the greatest risk for out-of-home or out-of-school placement.
- Component 4: A Crisis Care Continuum able to respond to the full range of episodic, intense needs that routinely occur over the course of care, including mobile teams able to respond to urgent needs outside of the normal delivery of care, as well as a continuum of placement options ranging from crisis respite to acute inpatient and residential care.

No community in Texas or the nation has a system that works like this. Today, most care in Harris County is delivered – when it is delivered – at the specialty care level. Far too little help is available in the primary care or rehabilitative sections of the continuum. These systemic barriers to access cause most families not to seek care at all; those that do tend to wait many

[1] These estimates do not sum to the same total due to rounding.

years until symptoms worsen. As a result, too many children and youth experience their first behavioral health care in a juvenile justice facility or an emergency room.



In addition, social determinants of health, including economic stability, education, health, access to health care, and the social and community context in which children and youth live and grow, all have an impact on health, development, and morbidity. Poverty, coupled with adverse childhood experiences (ACEs), can have a lasting, negative effect on physical and emotional well-being. Exclusionary school discipline, such as suspension and expulsion, is among the strongest correlates of future involvement in the juvenile justice system.

For this report, we identified higher-risk areas by mapping poverty rates overall and by school district. We found multiple pockets of need across the county, with higher rates of poverty outside the Inner Loop 610 area than inside it. We also mapped current provider locations, including across school districts. Many areas with the highest need are far from treatment providers and public transportation routes, and many outlying school districts lack providers within their geographic borders. All children, youth, and families in Harris County – whether inside or outside of the child welfare and juvenile justice systems – face stark gaps in care and poor outcomes as a result.

This report closely examines provider capacity and offerings across all of the components of the system, but the major system-level findings include the following:

Harris County is home to several very effective integrated primary care clinics, including many that are school-based. The most notable are operated by Memorial Hermann Health System, Legacy Health, Vecino Health, the systems within The Harris Center for Mental Health and IDD, and increasingly through Texas Children's Hospital and Harris Health System. These systems provide a strong base to build on, though the need far outstrips available capacity, just as it does in nearly every community across Texas.

Office-based specialty providers are more numerous, but there are gaps in access in outlying areas and in areas with growing poverty. Those gaps are, however, less severe than the gaps for integrated primary care and more intensive services.

Harris County has a well-established platform to address school behavioral health through MHA of Greater Houston's Center for School Behavioral Health, as well as many outstanding programs that provide school-linked and school-based behavioral health initiatives. However, with over 1,000 public schools across Harris County, the school-based and school-linked programs cannot meet current demand.

Nearly all children and youth in poverty are eligible for mental health services paid by Medicaid or CHIP, but less than one in five receive mental health care of any type.

There is a dramatic lack of intensive home and community-based care for the 4,000 children and youth at highest risk of being placed out-of-home or out-of-school. Currently, fewer than 250 children and youth in Harris County receive high-intensity home and community-based services through the mental health system. Essentially none of the treatment provided incorporates evidence-based approaches commensurate with their levels of need. More than twice as many youth (about 670) receive intensive home and community-based care through the juvenile justice system, some receiving evidence-based treatment through the Harris County Juvenile Probation Department (HCJPD).

The primary issues driving youth with severe mental health needs into the juvenile justice system include the limited capacity of community-based mental health providers, particularly at intensive levels; the nearly total absence of any evidence-based models for intensive services; the variable quality of the broader provider capacity; and limited resources for early intervention. Lack of insurance coverage was an important secondary factor.

The primary barrier to building capacity for intensive home and community-based care is provider capacity, not a lack of insurance coverage. While most children and youth in need

have some type of coverage, reimbursement rates are very low for Medicaid, CHIP, and private insurers. There is a general lack of awareness and understanding – even among providers – regarding state-of-the-art, evidence-based, intensive, community-based practices. That means providers are often not aware of the gaps in their own service arrays. And while the Texas Medicaid program includes intensive services among its benefits, such services are not available or covered outside of the public system.

Resources to coordinate care for children, youth, and families with the highest needs and involvement in multiple systems are limited in scope or still in development. Crisis services are particularly stretched, though many well-functioning but limited programs are available.

While there are challenges in accessing inpatient care, most programs have availability on most days. The main barriers to accessing inpatient care are an inability to pay for it, with or without insurance; high demand during the school year; complex needs that some children's psychiatric inpatient settings are unable or unwilling to treat; too few alternatives for crisis diversion; and the relative absence of intensive, evidence-based home and community-based interventions (resulting in lengthened hospital stays because of a lack of discharge options).

Most residential treatment facilities (RTFs) provide limited "treatment" and function primarily as placement options for children and youth who have no other alternative. While most offer safe and sound programs, intensive treatment options are generally limited, particularly in juvenile justice system facilities. Furthermore, research demonstrates that residential treatment is not an effective treatment model for ongoing care.

The report concludes with nine strategic recommendations that could serve as "game-changers" to move Harris County closer to the Ideal System of Care:

1: Expand on-site integrated primary care with an emphasis on school-based integrated primary care. The latest research suggests that up to two-thirds of children and youth with mental health needs, and their families, could be served in integrated primary care settings. School-based clinics are especially convenient and effective, if sufficiently resourced.

2: Specialty behavioral health providers must rethink their roles as more children, youth, and families with mild to moderate mental health conditions are served in integrated care settings, including school-based clinics. Specialty providers will increasingly need to focus on more intensive services for children and youth with moderate to severe mental health conditions or join integrated care practices to serve those with mild to moderate needs.

3: Strengthen the school liaison function bridging students in need, their families, and providers, and expand liaison capacity more broadly. Efforts should focus on schools and

school districts that have adopted and actively promote a developmentally focused social-emotional learning framework. Organizations such as Communities in Schools, ProUnitas, and Community Youth Services are currently filling this type of role in many Harris County schools.

4: Build capacity for the delivery of intensive services by encouraging providers to offer Medicaid Targeted Case Management (TCM) and Mental Health Rehabilitative Services. Work with providers to help them tap into the $2 million in grant funding that will be available through Senate Bill 74 (HHSC Rider 172) to expand capacity to provide TCM and Rehabilitative Services to children and youth in foster care who have intensive needs.

5: Develop a local, multi-year initiative to build capacity for intensive, evidence-based home and community-based services for the 4,000 children and youth who are at highest risk for out-of-home and out-of-school placement. Medicaid currently covers a minimum level of intensive supports, but evidence-based models are typically more intensive. Because they tend to be limited in duration and more effective, these evidence-based models have the potential to be more cost effective than other services. Given the possible expansion of intensive services for children and youth in the foster care system under HHSC Rider 172, local public and private funders may be able to partner with rehabilitation providers to expand capacity and simultaneously add evidence-based practices.

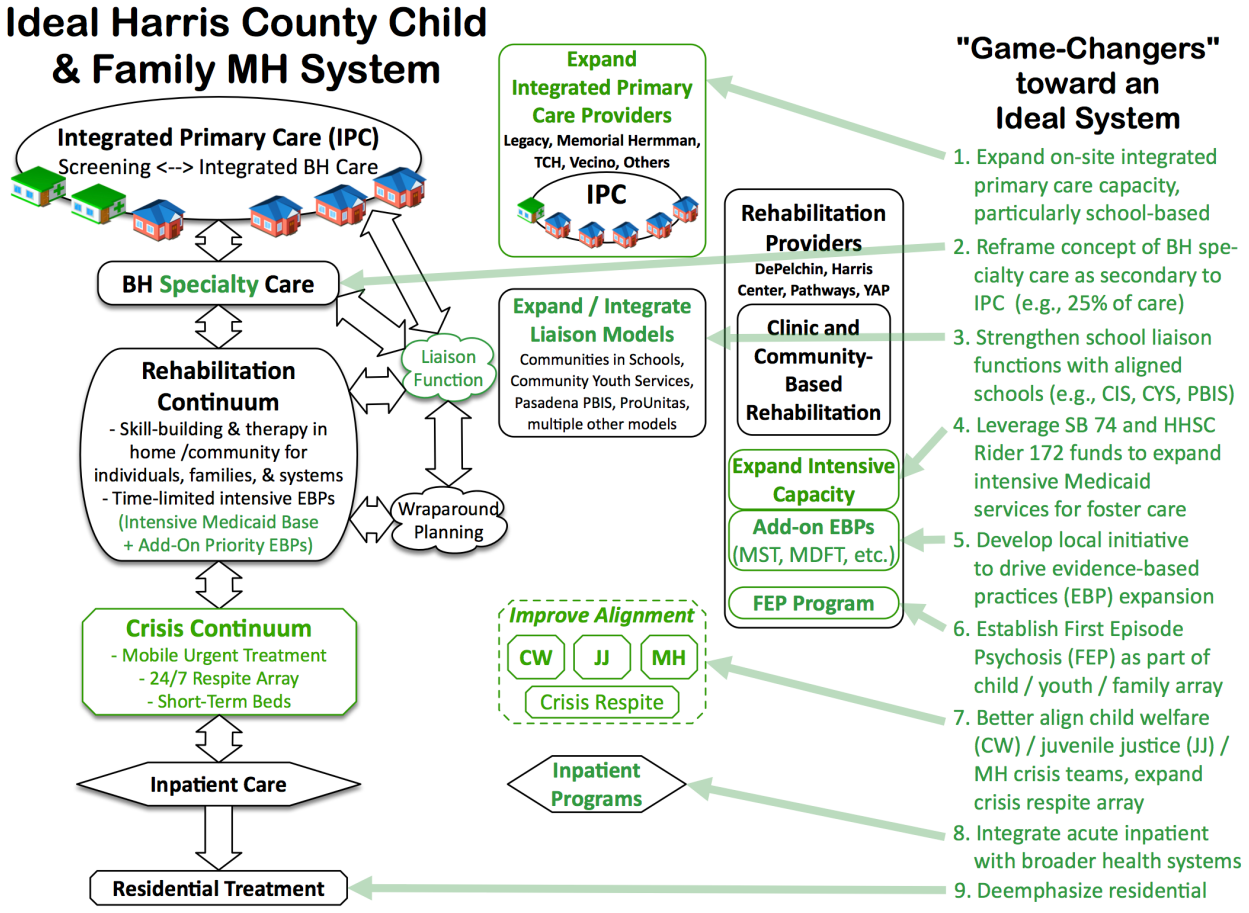
6: First episode psychosis (FEP) treatment programs must be incorporated into child and youth mental health systems, rather than delayed until youth become 18 years old and transition to adult systems. Recent state-level policy changes will allow the Harris Center's small Coordinated Specialty Care program for first episode psychosis to serve youth under age 18 as well as Medicaid-eligible youth. However, the majority of youth and young adults experiencing FEP probably have commercial insurance, so expansion of the model to other providers, perhaps building on the program's current partnership with UTHealth, may help reach a broader range of youth in need.

7: Begin to align child welfare, juvenile justice, and mental health crisis response resources; identify opportunities to expand the available crisis respite service array; and make the array available across systems. Many strong crisis programs exist, but they typically serve children and youth only within their own "silo" and do not coordinate systematically with other efforts. If better aligned, existing resources have the capacity to serve more children and youth and provide better options during a crisis. However, until additional intensive, evidence-based care resources are available, the crisis system will continue to be over-burdened and over-reliant on inpatient and crisis care.

8: Make better use of existing psychiatric inpatient bed capacity. This can be accomplished by exploring ways to purchase capacity in underutilized facilities to supplement the

overstretched public resources of the Harris County Psychiatric Center, as well as to expand access into the outlying areas of Harris County. The ultimate goal is to integrate inpatient psychiatric care into broader health systems and increase access for children and youth in poverty.

9: De-emphasize residential placement. When it is used, make sure residential "treatment," provides brief, intensive, family-based services as close to home as possible. Existing forums addressing the needs of high-risk children and youth, such as the Dual Status Youth Initiative, should incorporate this principle into their ongoing planning. In addition, the development of intensive, evidence-based home and community-based care should be incorporated into a multi-year, cross-agency plan to reduce the use of residential placements, starting with children and youth who are able to obtain care safely in their current living arrangements.



Please note that this report was finalized before Hurricane / Tropical Storm Harvey; need estimates reflect pre-disaster levels and no disaster-specific recommendations are included. However, it is the judgment of MMHPI that all recommendations remain pertinent post-disaster, though the need to develop systems further is heightened by the increase in needs related to the disaster, including trauma.

Overview

Thanks to the generous support of Houston Endowment, the Meadows Mental Health Policy Institute (MMHPI) conducted a comprehensive assessment of health care system capacity for providing mental health services for Harris County children, youth, and families. The assessment focuses on the system level, assessing the scope and quality of services within the framework of an "Ideal System of Care" that has four components:

- Integrated Behavioral Health in pediatric primary care settings;
- Specialty Behavioral Health Care;
- Rehabilitation Services, including intensive home and community-based services; and
- A Crisis Continuum, including psychiatric inpatient facilities and residential treatment.

The report also describes a range of contemporary best practices within each component, focusing on research-based practices that have demonstrated the best outcomes for children, youth, and their families across demographics and populations.

Within the context of the system framework and the best practices, we then assess Harris County's current child and family delivery system by addressing the following questions:

How many children and youth need mental health services, including:

- Services for children and youth with mild to moderate conditions?
- Services for children and youth with more severe conditions?
- Children and youth affected by poverty and adverse childhood experiences?
- Children and youth with the most intensive needs?

How geographically accessible are mental health providers, including:

- Where are the providers of services for each component of the Ideal System of Care located?
- Are the locations accessible to children and youth who need services the most?

How many children and youth receive mental health services, focusing on:

- Do the services children and youth receive fit their needs?
- To what extent are the services best practices and evidence-based?

What is the current capacity and opportunity to further develop each component of an Ideal System of Care in Harris County?

A cross-cutting challenge faced by many of children and youth (and their families) seeking health care for mental health needs is their involvement in multiple formal and informal systems. First and foremost, every child and youth develops and faces their health care needs

(including mental health) in the context of a family system, and families often have their strengths and resiliency challenged by parental health needs, poverty, and a range of struggles to provide for their children and youth across the decades needed to develop from infant to adult. Additionally, almost all children and youth are involved in various systems that address their developmental needs, including education, primary care, specialty mental health and substance abuse services systems, child welfare, juvenile justice, and intellectual / developmental disabilities. In many instances children and youth are involved with multiple systems simultaneously, particularly those at highest risk of out-of-school or out-of-home placements. Each of these systems has different legal mandates, policy objectives, funding restrictions, and information-sharing processes – variables that complicate efforts to deliver effective care across systems. Further, these systems must address changing developmental needs and acuity levels over the course of care while aligning safety concerns and restrictiveness of setting (e.g., incarceration, other secure and non-secure out-of-home placements, or community-based options) with the needs of children, youth and their families.

While we recognize the efforts of these formal systems to provide and coordinate access to effective mental health services, we also recognize that their complexity and limited capacities create additional challenges for the children, youth, and their families accessing their services. We hope this report provides guidance on strategies to improve access to the right type of services in the right place and at the right time for Harris County children, youth, and their families.

Please note that this report was finalized before Hurricane / Tropical Storm Harvey, and need estimates reflect pre-disaster levels and no disaster-specific recommendations are included. However, it is the judgment of MMHPI that all recommendations remain pertinent post-disaster, though the need to develop systems further is heightened by the increase in needs related to the disaster, including trauma.

Approach

The MMHPI team included experts in diverse fields: behavioral health services; behavioral health integration with primary care; child welfare and foster care; juvenile justice; and mental health delivery systems for children, youth, and their families in communities and schools. We initiated this review in the fall of 2016 with meetings with system leaders from across Harris County. Our goal was to engage key stakeholders in the review from the beginning and identify the fullest possible universe of mental health providers. We performed numerous site visits and interviews of mental health providers within primary care, child welfare, juvenile justice, and school systems. We also looked closely at The Harris Center for Mental Health and IDD (Harris Center), which, as the Harris County local mental health authority (LMHA), is the primary provider offering community-based rehabilitation services, including crisis, outpatient clinic, community and school-based services, and intensive mental health services.

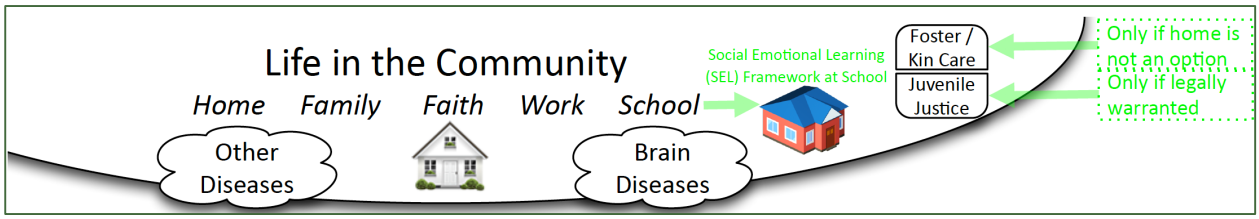
We collected archival data from state sources, including the Health and Human Services Commission, the Department of Family and Protective Services (DFPS), and the Texas Juvenile Justice Department. We also compiled data from multiple sources to map resources in several major health systems within the county, focusing on those primarily serving children and youth (Texas Children's Hospital), those focused primarily on the needs of people in poverty (Harris Health), and systems with major school-based efforts (Legacy Community Health, Memorial Hermann Health System, and Vecino Health Centers), identifying their services locations alongside locations of key mental health inpatient and outpatient resources. We supplemented this data-driven approach with on-the-ground interviews and site visits to yield a population-level view of strengths and needs across the child-serving organizations and communities of the region. A full list of people interviewed can be found in Appendix A.

This report's structure reflects our approach. First, we describe an "Ideal System of Care" for children, youth, and families needing mental health services, identifying a wide array of best practices and evidence-based interventions with proven good outcomes (Appendix B describes the range of specific evidence-based and other best practices needed across the system). We then discuss the characteristics and prevalence of mental health conditions among children and youth in Harris County, an assessment that includes the current service array and capacity across the multiple child-serving delivery systems and maps provider locations to show geographic access to services. Based on this comprehensive view, we describe the strengths and gaps of the current delivery systems and present strategies to build on existing strengths. Lastly, we provide a summary of system-level findings and recommendations to inform future planning and system development efforts.

For the purposes of this report, we use the term "children" to mean all children and pre-teens, and we use "youth" to refer to teens up to age 18. However, because of the design of some data sources and systems, the boundary between "children" and "youth" is not always precise, and occasionally we use "adolescent" when referring to older children and youth in order to reflect the definition used by the source we are citing.

Finally, we extend our appreciation to Houston Endowment for commissioning this important work and to the many providers and other stakeholders across Harris County that generously shared their time and insights.

An Ideal System of Care for Pediatric Mental Health



Health care systems are an integral part of every child and family's life, but they are only a part of life. While this may seem like an obvious truism, unfortunately too many health systems are designed without recognizing this core truth, and they instead focus simply on the care they are attempting to deliver as the overarching concern. But health needs – both diseases affecting the brain, such as mental health disorders, and other conditions – occur in the context of life: home, family, faith, work, and school.

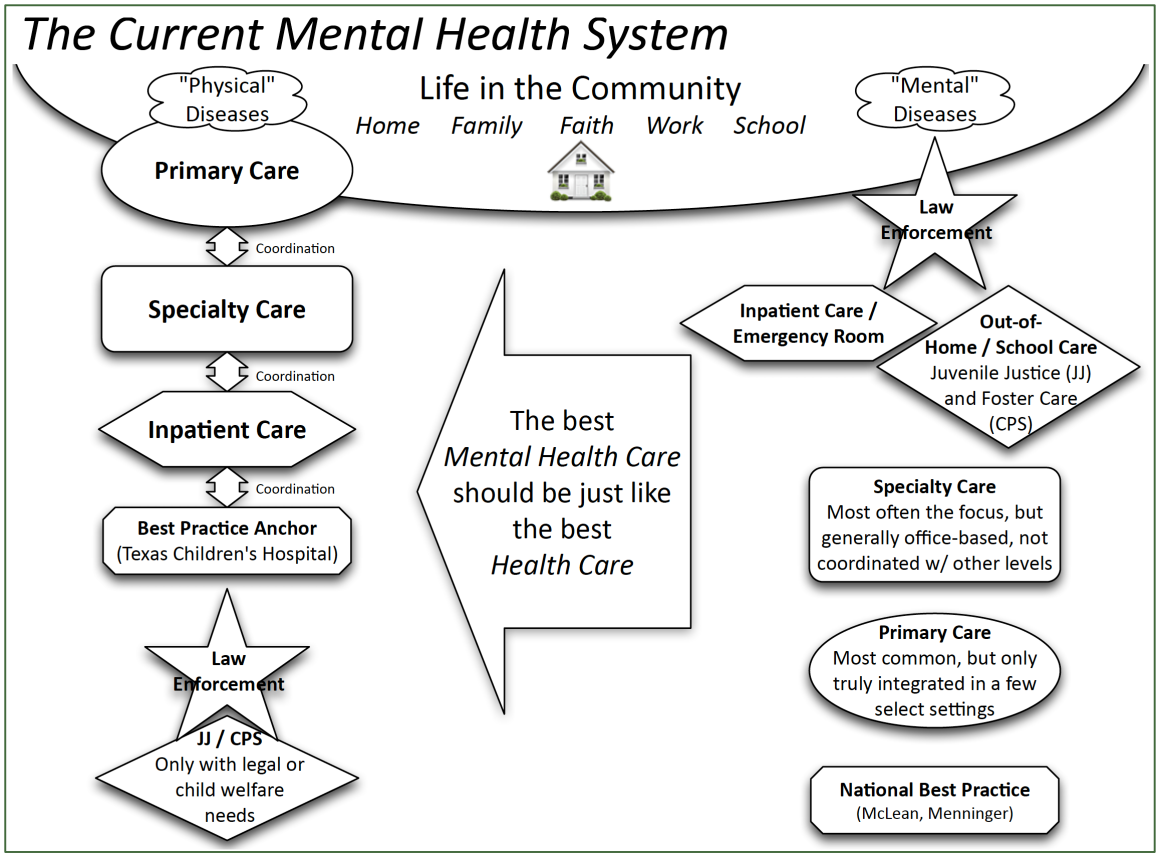
Some services look like mental health services, but are not. Schools, foster care, and juvenile justice services providers have important roles to play in prevention efforts and the delivery of mental health interventions, but they are not health care providers. For nearly every child, schools can help support healthy development and improve academic performance by implementing social and emotional learning (SEL) models and linking children and youth in need to care. Some schools are able to house service providers on campus, greatly easing access to care for many children, youth, and families. And while only a relatively few children and youth are involved at any time in the foster care system, their needs and vulnerability often require communities to focus on their mental health needs and devise ways to link children and youth in need to care. Often, access to this care is essential to support the success of foster and permanent placements for these children and youth. The same is true for the juvenile justice system. Because the roles of schools, the foster care system, and the juvenile justice system are so integral to the mental health needs of children and youth, we often talk about them as if they are part of the mental health care delivery system, but they are not. In an ideal mental health system for children, youth, and families, mental health services are integrated within the broader health care system and well-coordinated with other child delivery systems, such as child welfare, schools, and juvenile justice. Furthermore, children and youth would never end up in the foster care or juvenile justice system because of their unmet mental health needs.

In addition, children and youth should be served at the right level of care. To demonstrate this concept, consider another type of specialty care: orthopedics. If a child falls at school and sprains their wrist, there is generally no need to go to an orthopedic specialist or hospital; the child can be treated either by the school nurse or a primary care provider. However, if the fall is more severe and the child breaks their arm, they will ideally need to see a specialist to get a cast or other treatment. But if the child suffers a complex injury, either through sports or

trauma (such as an automobile accident), they will need more intensive care. They may need to stay temporarily at the hospital to undergo complex or dangerous procedures requiring such a setting. And they may need weeks or months of intensive rehabilitation to support healing, reduce pain, and regain functioning.

Just as an "ideal system of care for orthopedics" requires the organization of interventions in primary care, specialty care, rehabilitation, and hospital settings, so too should an "ideal system of care for mental health." However, today mental health systems in every community in Texas and across the nation are organized very differently.

The current system has some individual programs and practices, but the overall system of care is fragmented, as depicted in the following illustration.



More specifically:

- The front line of care is frequently an informal mix of law enforcement, hospitals (emergency rooms and inpatient care), and out-of-home care options through the juvenile justice and foster care systems, because too often people do not seek care until

symptoms have been present for years and needs have become acute.[2] For other health conditions, the child welfare and juvenile justice systems are properly seen as settings for care, but too often these systems are used as default providers of mental health services. Also, law enforcement sometimes responds to other health emergencies (for example, orthopedic injuries in an automobile accident).

- Discussions on mental health care tend to overly focus on the specialty care system, with mental health providers viewed as a generic solution to any type of need and too little discussion of their role in relation to primary care and more intensive rehabilitative care.
- Rehabilitation services for mental health needs are typically only available through public sector providers, rather than being a broadly accessible resource across private and public payers, like they are with physical rehabilitation. In Texas, until 2013 only local mental health authorities were credentialed to provide such care in the public system, and rehabilitation services are rarely paid for by private payers. As a result, rehabilitation tends to function more as a separate system rather than part of a coordinated service array.
- High quality inpatient programs, such as the Menninger Clinic in Houston or McLean Hospital in Massachusetts, tend to be national in their focus (rather than part of a regional array of coordinated services), though the Menninger Clinic has begun to invest considerably in expanding its outpatient array and building community linkages through its BridgeUp program.[3]

These are the systemic challenges that health care providers and families across the nation currently struggle with daily – these challenges are not unique to Harris County or Texas. However, health care systems across Texas and the nation are in the early stages of improving how care is organized. We have grouped our discussion of these changes into four distinct components:

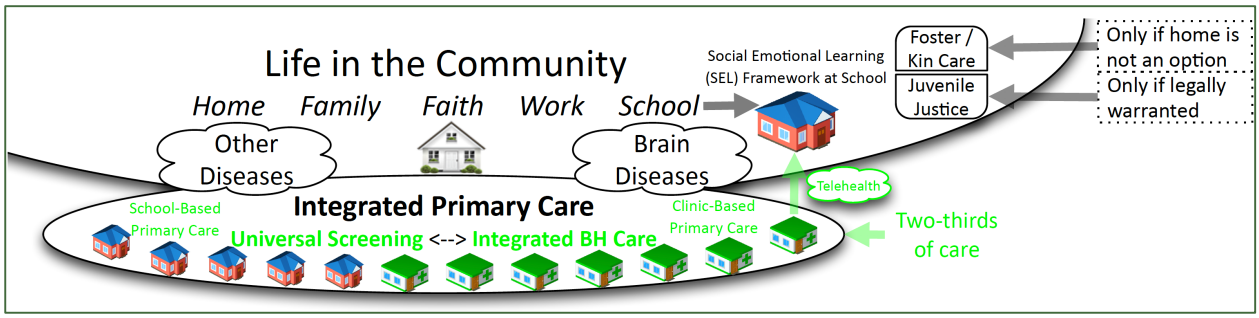
1. Integrated Behavioral Health in pediatric primary care settings;
2. Specialty Behavioral Health Care;
3. Rehabilitation Services, including intensive home and community-based services; and
4. A Crisis Care Continuum, including psychiatric inpatient facilities and residential treatment.

In the following subsections, we describe these components in greater detail.

[2] Wang P.S., Berglund P.A., Olfson M., Kessler R.C. (2004). Delays in initial treatment contact after first onset of a mental disorder. *Health Services Research, 39*(2), 393–415.

[3] See http://www.menningerclinic.com/about/community-engagement/bridgeup-at-menninger for more information.

Component 1: Integrated Primary Care



The preceding diagram depicts the front line for all health care delivery, where research suggests that up to two-thirds of all pediatric behavioral health needs can be met: integrated primary care. It highlights several key components of that care in its ideal form:

- There should be universal screening for behavioral health needs,
- Integrated behavioral health care should be available,
- Primary care should be available in both school and clinic settings, and
- Telehealth is a key strategy for linking schools without school-based clinics to primary care resources off campus (either in clinics or at other school-based sites).

Behavioral health integration in pediatric primary care settings is in many ways the core component of an ideal system, and it is an essential strategy for increasing access to mental health services for children and youth, particularly those with mild to moderate conditions. Today, about 75% of children and youth with psychiatric disorders are seen in pediatric and other primary care settings.[4] The ability for pediatricians and other primary care providers to deliver mental health services has traditionally been difficult because of limited time with each patient visit, minimal training and knowledge of behavioral health disorders, gaps in knowledge of local resources, and limited access to behavioral health specialists. However, an example of a fully scaled, statewide implementation suggests that two thirds of behavioral health care could be provided in pediatric settings with the right integration supports.[5]

Schools are the most natural setting for embedding integrated primary care to identify and assist children and youth with behavioral health concerns. As such, provision of health and mental health services to students through school clinics is an effective strategy for addressing

[4] American Academy of Child and Adolescent Psychiatry. (2012, June). *Best principles for integration of child psychiatry into the pediatric health home.* Retrieved on June 1, 2017, at: https://www.aacap.org/App_Themes/AACAP/docs/clinical_practice_center/systems_of_care/best_principles_for_integration_of_child_psychiatry_into_the_pediatric_health_home_2012.pdf

[5] Straus, J. H., & Sarvet, B. (2014). Behavioral health care for children: The Massachusetts Child Psychiatry Access Project. *Health Affairs*, *33*(12), 2153–2161.

the mental health needs of children and youth.[6] Efforts to expand school-based primary care across Texas are increasingly incorporating telehealth as a means to link limited provider resources to more school campuses, most notably through Dallas Children's Medical Center.

In both school and traditional clinic settings, behavioral health integration in primary care settings also aligns with the concept of the "medical home." According to the American Academy of Pediatrics (AAP), the pediatric health home, sometimes referred to as the pediatric medical home, refers to "delivery of advanced primary care with the goal of addressing and integrating high quality health promotion, acute care and chronic condition management in a planned, coordinated, and family-centered manner."[7]

The American Academy of Child and Adolescent Psychiatry (AACAP) identifies key components of the behavioral health integration framework within the pediatric medical home in its publication, "Best Principles for Integration of Child Psychiatry into the Pediatric Health Home."[8] This includes the following strategies:

- Screening and early detection of behavioral health problems;
- Triage and referral to appropriate behavioral health treatments;
- Timely access to child and adolescent psychiatry consultations that include indirect / psychiatric consultation to primary care physicians, as well as face-to-face consultation with the patient and family by the child and adolescent psychiatrist with the patient and family, when needed;
- Care coordination that assists in the delivery of mental health services and strengthens collaboration with the health care team, parents, family, and other child-serving agencies;
- Access to child psychiatry specialty treatment services for children and youth who have moderate to severe psychiatric disorders; and
- Monitoring outcomes at both an individual and delivery system level.

There are both national and local models that have established the behavioral health integration framework in pediatric care settings. The Massachusetts Child Psychiatry Access Project (MCPAP), established in 2004, is a national leader and model that has inspired many other states to create similar programs. It currently supports over 95% of the pediatric primary care providers in Massachusetts. MCPAP has six regional behavioral health consultation hubs

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[6] Murphy, D., Stratford, B., Gooze, R., Bringewatt, Cooper, P.M., Carney, R., Rojas, A. (2014). *Are the children well? A model and recommendations for promoting the mental wellness of the nation's young people.* Robert Wood Johnson Foundation, pages 6–7.

[7] American Academy of Pediatrics. (2017). *Medical home: Medical home resources.* Retrieved from American Academy of Pediatrics: https://www.aap.org/en-us/professional-resources/practice-transformation/medicalhome/Pages/home.aspx.

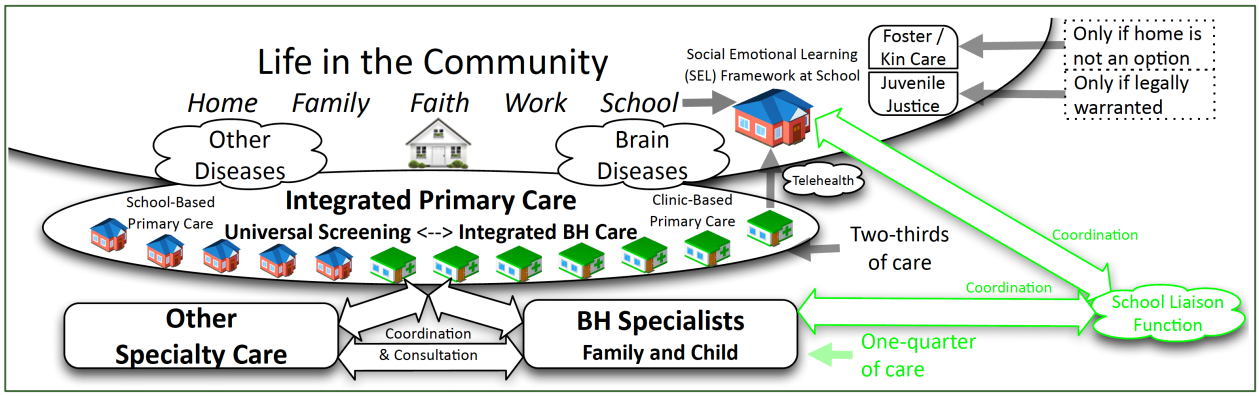
[8] American Academy of Child and Adolescent Psychiatry (2012).

that consist of a child psychiatrist, a licensed therapist, and a care coordinator. Each hub operates a dedicated hotline that can include the following services: timely clinical consultation over the phone, expedited face-to-face psychiatric consultation, care coordination for referrals to community behavioral health providers, and ongoing professional education designed for primary care providers (PCPs). In 2014, following a MCPAP consultation, PCPs reported they were able to manage 67% of the kinds of problems that they typically would have referred to a child psychiatrist before they enrolled in the program. The MCPAP model was so instrumental in providing accessible behavioral health care for children and youth that in 2010, the Massachusetts Child Psychiatry Access Project expanded to develop MCPAP for Moms, a collaborative model that involves obstetricians, internists, family physicians, and psychiatrists. Their mission is to promote maternal and child health for pregnant and postpartum women for up to one year after delivery to prevent, identify, and manage mental health and substance use conditions.[9]

Best Practice: MCPAP Regional Hubs

- ***Timely phone consultation,***
- ***Expedited face-to face psychiatric consultation,***
- ***Care coordination for referrals,***
- ***Education for primary care providers.***

Component 2: Specialty Behavioral Health Care



Some conditions (including psychiatric and other illnesses) need treatment by specialists in separate clinical settings. Specialty behavioral health care is the second component of an ideal system. However, rather than being the primary focus of the delivery system – like it often is today – in our ideal system, only about one fourth of all children and youth suffering with mental health conditions would need this level of specialty care. Anxiety and routine depression can be readily treated in integrated primary care settings, but specialists are needed for the treatment of more complex depression, bipolar disorder, posttraumatic stress disorder, and other conditions that require specialized interventions. The future Ideal System of Care would shift some of the population (with mild to moderate mental health conditions) from

[9] Straus, J. H., & Sarvet, B. (2014).

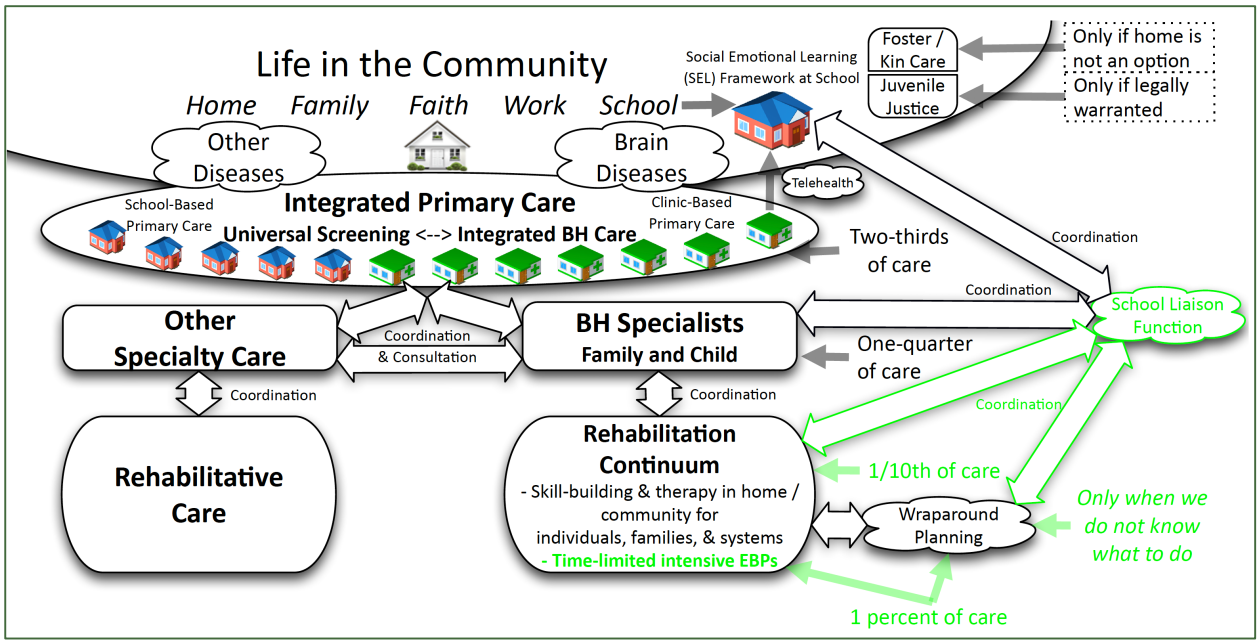
specialty behavioral health care settings to integrated primary care settings, allowing specialists to focus on children and youth with moderate to more severe conditions, re-allocating scarce resources to serve children and youth with more intensive needs.

There is also a need for schools to develop a liaison function to help link children and youth in need (and their families) to available care. The liaison function can take on different forms in different schools and school districts, but its focus is the same – linking children and youth in need and their families to available specialty behavioral health resources. As will be seen later in this report, Communities In Schools (CIS) can play that role for Harris County schools served by this program; in districts such as Pasadena Independent School District (ISD), where the district has invested in Positive Behavioral Interventions and Supports (PBIS), school personnel can play that role.

Providers of Specialty Behavioral Health Care include, for example, psychiatrists, psychologists, social workers, nurse practitioners, marriage and family therapists, professional counselors, and chemical dependency counselors in both private practice, outpatient clinics, counseling centers, and school-based clinics that offer mental health services. These settings should provide individual, family, and group therapies, including a range of evidence-based, office-based treatments, such as cognitive therapies, trauma-informed care, and Dialectical Behavior Therapy.

Perhaps most importantly, specialty behavioral health care in the ideal system focuses just as much on parents and caregivers as on children and youth. In addition, because psychiatric conditions complicate treatment of other illnesses (e.g., diabetes), coordination with primary care providers is essential.

Component 3: Rehabilitation and Intensive Services



Some conditions are so severe that they impair functioning across multiple life domains and require evidence-based rehabilitation in addition to specialized treatment of the underlying mental health disorder. In the same way that a catastrophic orthopedic injury can require a child to have to re-learn how to walk or carry out some other routine activity of life, a severe psychiatric condition such as a psychosis, or a less severe condition that goes untreated for years and impedes functioning at school or home, requires rehabilitative care to both treat the underlying condition and restore healthy functioning at home, in school, and around the community. All of these children, youth, and families require:

- A continuum of rehabilitative care that includes both skill-building and therapeutic interventions for the individual, their family, and the systems in which they function in order to help those systems accommodate the needs of the child;
- Extension of the school liaison function to link children, youth, and families in need to these providers and to link the school with the treatment team to help the school meet that student's needs given their level of psychiatric impairment.

A subset of these children, youth, and families require even more. We estimate that one in ten of these children and youth (one percent of all children and youth with mental health needs), require time-limited, intensive mental health services:

- For an older adolescent first experiencing a psychosis, the best evidence-based intervention (Coordinated Specialty Care) involves about two years of intensive, outpatient treatment that combines effective medication, education and skill-building for the youth and their family in how to stay in school and continue on (or regain) a healthy developmental track, and support to the school or work setting in accommodating the youth's symptoms.
- For a children and youth caught up in juvenile offending with severe externalizing symptoms (e.g., classroom disruption, angry outbursts, defiance) related to an untreated (or inadequately treated) depression or anxiety disorder (perhaps related to trauma), a three- to seven-month regimen of Functional Family Therapy (FFT) or Multisystemic Therapy (MST) may offer the best option.

Intensive In-Home and Community-Based Evidence-Based Practices

- ***Functional Family Therapy (FFT)***
- ***Intensive In-Home Child and Adolescent Psychiatric Services (IICAPS)***
- ***Treatment Foster Care Oregon (TFCO)***
- ***Multidimensional Family Therapy (MDFT)***
- ***Multisystemic Therapy (MST)***
- ***Wraparound Facilitation***
- ***Coordinated Specialty Care for First Episodes of Psychosis***

Sometimes the needs are so complex that treatment providers and potentially multiple child-serving agencies involved in the child or youth's life (child welfare, special education, or juvenile justice) are unable to identify the best treatment option for the child and his or her family. In these cases, Wraparound Service Coordination is a necessary option to help the family and involved parties sort through needs and determine the best path forward.[10]

Based on the best prevalence data available, we estimate that about one in 10 children and youth with mental health needs requires a combination of specialized intervention and functional rehabilitation, and one in 75 needs intensive interventions. Appendix B describes a full array of intensive, evidence-based rehabilitation treatments. The ideal service array would provide a continuum of rehabilitation options to match home and community-based skill-building and therapies to the specific needs of each child, youth, and family requiring such care. In general, intensive home and community-based services are provided in the child's home and community. More intensive services are provided to children and youth at higher risk for out-of-home placement because of behavioral health issues or who have returned or are returning home from residential treatment centers or psychiatric hospitals.

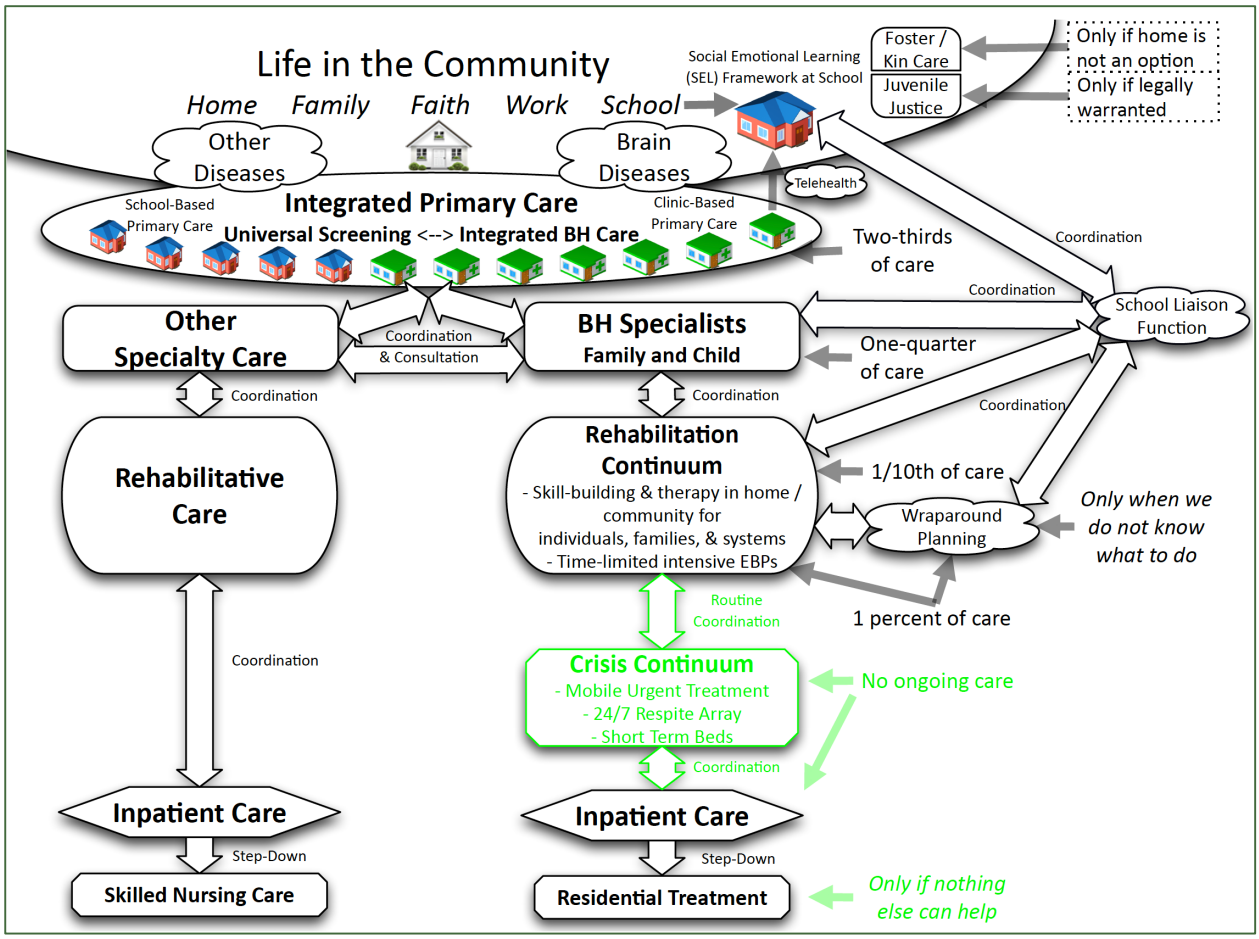
[10] Currently, the Texas Medicaid program requires Wraparound Service Coordination for all children and youth receiving intensive home and community-based services to receive Wraparound Service Coordination. While the principles of wraparound should inform all intensive treatment, the evidence base suggests that a Wraparound Facilitator and formal wraparound plan is only needed when the needs are so complex that a given type of care (e.g., CSC, FFT, or MST) is not sufficient.

The intent of these services is to provide the level, or dose, of clinical intervention and support necessary to successfully return each child or youth to a healthy developmental trajectory within his or her home or community. Treatment and support services are provided in a context that is child-centered, family-focused, strength-based, culturally competent, and responsive to each child's psychosocial, developmental, and treatment care needs. When services are provided in the home and family setting, the clinical team has the opportunity to observe the family home; identify what is important to the child or youth and family; understand the roles of language, culture, and religion; and consider whether extended family or friends are available to support the child. The team can also gain information about the family's general welfare and whether the family has enough food, clothing, and other resources to enable children to thrive.

As noted earlier in this section, rehabilitative services in Harris County currently are limited to the public sector and generally available only through The Harris Center for Mental Health and IDD (Harris Center), the local mental health authority, just as they are throughout Texas and much of the rest of the nation. They are also very limited or lacking in evidence-based options, particularly the intensive rehabilitation services like Coordinated Specialty Care (CSC), MST, and FFT that have been shown to offer effective alternatives to more restrictive settings such as hospitals and juvenile justice providers. The "ideal system of care" for the future in Harris County would broaden access to rehabilitative services beyond the public system; expand evidence-based, intensive service options in the community; and allow many children and youth who are currently relegated to intermittent episodes of inpatient psychiatric care and residential services to shift to more effective home and community-based services. These services would also occur early in the development of their mental health conditions. With early screening in integrated care settings, including schools, children and youth would be able to get connected to appropriate services, and those identified as having serious or complex conditions would receive the intensive services they need early on, rather than having to languish at less intensive levels of care.

Screening is particularly essential for the onset of severe mental illness, especially when a youth or young adult initially shows psychotic symptoms, such as hearing voices or experiencing other hallucinations or delusions. Referred to as "first episode psychosis" (FEP) in medical terms, these symptoms most frequently occur during the teenage years and in young adulthood. Many youth go untreated during these years. However, treatment and early identification for youth ages 15 and older has the potential to radically change the course of these individual's development and their illnesses, promoting recovery without multiple hospitalizations and loss of education and skills development.

Component 4: Crisis Care Continuum



As noted at the outset of this section, today, children and youth across Texas and the nation typically end up in inpatient care and residential treatment too often. It is important to understand that these levels of care are not places for ongoing treatment – they are specialized settings designed to address either acute needs (inpatient care) or an inability to reside at home (residential treatment). We also discussed in the last subsection how intensive, evidence-based treatment can reduce the need for residential care, so in our ideal system, we would only have to use residential treatment in cases where safety concerns, combined with a lack of effective alternatives, requires it (similar to the role that skilled nursing care plays for children and youth with other complex medical conditions).

But evidence-based, intensive treatment is not enough. The most effective systems of care for children and youth, such as the renowned system in Milwaukee, WI, recognize that crises routinely happen during the course of care – arguments escalate, over-taxed caregivers require respite, and threats to self or others require a medical response. An ideal system therefore requires a crisis care continuum that includes mobile teams that are able to respond not just to a range of urgent needs that occur outside of normal business hours and treatment

environments, but also when there is a risk of an inpatient hospital admission. This continuum also requires a range of placement options ranging from crisis respite to acute inpatient.

In 2016, MMHPI and St. David's Foundation collaborated to publish a report that defined the ideal continuum of crisis services[11] and outlined the essential values for crisis services as promoted by the Substance Abuse and Mental Health Services Administration (SAMHSA) practice guidelines.[12] These values and guidelines emphasize: 1) rapid response, 2) safety, 3) crisis triage, 4) active engagement of the individual in crisis, and 5) reliance on natural supports. A crisis continuum for children and youth within an Ideal System of Care goes beyond that to include the following service components:

- A mobile crisis team for children, youth, and families that has the capacity to provide limited ongoing in-home supports, case management, and direct access to out-of-home crisis supports (for a national example, see Wraparound Milwaukee's Mobile Urgent Treatment Team/MUTT);[13]
- Screening, assessment, triage, ongoing consultation, time-limited follow-up care, and linkages to transportation resources, supported by protocols and electronic systems to communicate results across professionals and systems to determine the appropriate level of services;
- Coordination with emergency medical services;
- Crisis telehealth and phone supports; and
- An array of crisis placements tailored to the needs and resources of the local system of care, including an array of options such as:
  - In-home respite options,
  - Crisis foster care (placements ranging from a few days up to 30 days),
  - Crisis respite (one to 14 days),
  - Crisis stabilization (15 to 90 days) with capacity for 1:1 supervision, and
  - Acute inpatient care, and
  - Linkages to a full continuum of empirically supported practices.

The crisis care continuum should be an adjunct to a robust array of outpatient and intensive community based services, not a substitute for these services.

While this array does not currently exist in any county in Texas, some components exist in Harris County across the mental health, child welfare, and juvenile justice systems, but they are

[11] Meadows Mental Health Policy Institute. (2016, December). *Behavioral health crisis services. A component of the continuum of care*. Commissioned by St. David's Foundation.

[12] Substance Abuse and Mental Health Services Administration. (2009). *Practice guidelines: Core elements in responding to mental health crises*. Rockville, MD: Office of Consumer Affairs, Center for Mental Health Services, Substance Abuse and Mental Health Services Administration. Retrieved on August 31, 2016 at https://store.samhsa.gov/shin/content/SMA09-4427/SMA09-4427.pdf

[13] For more information, see http://wraparoundmke.com/programs/mutt/.

not well coordinated or conceptualized as a single crisis system. In an Ideal System of Care for Harris County, the crisis care continuum would be more unified, with a broader array of crisis intervention services aimed at supporting families and caregivers, schools, children, and youth across the child-serving agencies. While there is evidence of collaboration among different partners of the current system, the various crisis programs currently available are designed to help individual target populations (e.g., mental health, juvenile justice, child welfare) within each specific system.

Even with a full continuum of crisis options, children and youth will still need inpatient care for acute and complex needs. While inpatient psychiatric care is not a substitute for ongoing, well-coordinated outpatient mental health care, inpatient psychiatric hospitalizations can be helpful for acute stabilization of a children and youth with complex needs, such as safety concerns or adjustments of medications that require close monitoring. These hospitalizations should be available when needed, but generally should be brief and supported by the broader crisis array. For example, short-term placement in crisis foster or residential care can divert children and youth with sub-acute needs from inpatient settings, as well as provide support as they transition home. The availability of intensive community-based services and supports for families and foster care providers can also assist children, youth, and their caregivers with the transition back to their homes post hospitalization. In an Ideal System of Care for Harris County, inpatient care access would be targeted to children and youth who need this level of care rather than to children and youth with serious mental health conditions who are in crisis and simply have no place to go.

Residential treatment represents a component of the continuum of care for children and youth whose behavior cannot be managed safely in a less restrictive setting. However, residential treatment is among the most restrictive mental health services provided to children and youth. As such, it should be reserved for situations where less restrictive placements are ruled out, including for children and youth with highly complex needs or dangerous behaviors (e.g., fire setting) who may not respond to intensive, nonresidential service approaches.[14] Across Texas and nationally, children and youth are too often placed in residential treatment because more appropriate community-based services are not available. When utilized, residential services should be brief, intensive, family-based, and as close to home as possible. In the Ideal System of Care, intensive in-home community-based services and other rehabilitation skills-building services in Harris County would be available earlier to prevent out-of-home placement, except when such services cannot be safely provided in the home or community.

[14] Stroul, B. (2007). Building bridges between residential and nonresidential services in systems of care: Summary of the special forum held at the 2006 Georgetown University Training Institutes. Washington, DC: Georgetown University Center for Child and Human Development, National Technical Assistance Center for Children's Mental Health.

We will return to these and other components of the ideal system throughout this report. In the final set of recommendations, we will present several "game-changers" to begin to shift current Harris County mental health systems for children, youth, and families toward this ideal.

How Many Children and Youth in Harris County Have Mental Health Needs?

This section provides an overview of the number of children and youth in Harris County with different types of mental health conditions. We also briefly summarize some of the factors, including trauma and poverty, that have an impact on the mental health of children and youth. Overall, one in three children and youth and two in five adolescents suffer each year from mental health and substance use disorders, based on the latest epidemiological research.[15] However, individual needs vary in intensity from very mild to extremely acute and severe. To revisit the analogy to orthopedic care used earlier in describing an ideal mental health system, while many children and youth sprain or break their arms and legs each year, only a much smaller number suffer catastrophic injuries and traumas that necessitate rehabilitation to regain functioning.

Harris County – Prevalence and Severity of MH Conditions among Children and Youth:

- ***250,000 mild to moderate needs***
- ***65,000 with severe needs (SED)***
- ***35,000 with SED in poverty***
- ***4,000 at high risk of out-of-home or out-of-school placement***

However, we believe that summing up the entire range of mental health needs in a statistic such as "one in three" or "two in five," or singling out a broad subgroup based simply on functional severity such as "children with serious emotional disturbance (SED)," can actually create barriers to better treatment of mental illness. Such simplistic groupings are not done for other severe medical conditions. For example, the most recent Texas Cancer Plan does not even note the total number of people in Texas with cancer (which is just under 740,000), nor does it break out the number of severe cases (e.g., "Stage Four" cases). [16, 17] Instead the plan focuses on specific cancer conditions (e.g., breast cancer, prostate cancer) and the number of new cases that emerge each year (otherwise known as incidence). Determining a discrete diagnosis can be challenging for a child as he or she matures through various stages of development. At the

[15] Kessler, R. C. et al. (2005). Prevalence, severity, and comorbidity of 12-month DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry, 62*, 617–709. Kessler, R. C. et al. (2012). Prevalence, persistence, and sociodemographic correlates of DSM-IV disorders in the National Comorbidity Survey Replication-Adolescent Supplement. *Archives of General Psychiatry, 69*, 372–380.

[16] Cancer Prevention and Research Institute of Texas. (2012, April). *Texas cancer plan.* (2012). Retrieved from http://www.cprit.state.tx.us/images/uploads/tcp2012_web_v2a.pdf

[17] Texas Department of State Health Services (DSHS). (2017). Texas prevalence counts, invasive cancers only, January 1, 2014 using different tumor inclusion criteria. Retrieved from http://www.dshs.texas.gov/tcr/data/prevalence.aspx

same time, it is important to assess whether a child has a routine anxiety disorder or depression, which can be treated in an integrated primary care setting, or a more severe condition that requires specialized or intensive treatment.

To ground this assessment, we used the best available epidemiological research to provide rounded estimates[18] of the number of children and youth up to age 18 with mental health needs in Harris County. We focused on those children and youth in Harris County with mild to moderate conditions, as well as those with serious emotional disturbances (SED). Across all needs – mild, moderate and severe – about 310,000 Harris County children and youth suffer from mental health disorders each year, including 160,000 living in poverty. In the table that follows, we break out for further analysis the numbers of children and youth for each condition who live in poverty (which we defined as the number living in a household with incomes at or below 200% of the federal poverty level), as well as the smaller subset of children and youth in poverty with mental health needs who are at highest risk for out-of-home or out-of-school placement. The table includes the most common mental illnesses using 2015 MMHPI prevalence estimates for overall need, SED, and intensive need for Harris County. While the numbers associated with all mental illnesses may seem high, up to two thirds of children and youth with mild to moderate needs can be addressed by the best-practice integrated behavioral health services discussed in the previous section, allowing communities and health systems to focus their specialty resources on more severe subsets of need.

[18] Numbers do not always add up due to rounding. All prevalence estimates are based on either Texas-specific algorithms (Holzer et al., 2016) or estimates from the literature then applied to population estimates from the American Community Survey, 2015. Unless otherwise noted, age of onset estimates come from Kessler, R.C., et al. (2005). Lifetime prevalence and age of onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry, 62*, 593–768. Overall prevalence estimates of all conditions combined are from the Federal Register and from Kessler, R.C., et al. (2012). Severity of 12-month DSM-IV disorders in the National Comorbidity Survey Replication Adolescent Supplement. *Archives of General Psychiatry, 6*9(4), 381–389.

Mental Health Conditions Among Children and Youth in Harris County, 2015[19]

Mental Health Condition	Age Range	Prevalence
Harris County Child / Youth Population		
Total Population – Children and Youth	6–17	810,000
Population in Poverty[20]	6–17	410,000
All Behavioral Health Needs (Mild, Moderate, and Severe)		310,000
Mild and Moderate Conditions	6–17	250,000
Severe Conditions: Serious Emotional Disturbance (SED)[21]	6–17	65,000
SED in Poverty	6–17	35,000
At Risk of Out-of-Home / Out-of-School Placement[17]	6–17	4,000
Specific Disorders – Youth (unless otherwise noted) [23]		
Depression	12–17	30,000
Bipolar Disorder	12–17	8,000

[19] All prevalence estimates are based on either specific algorithms applied to Texas (Holzer et al., 2015, cited below) or estimates from the research literature. These estimates are applied to population estimates from the American Community Survey, 2015. Unless where otherwise indicated, age of onset estimates come from Kessler, R.C., et al. (2005). Lifetime prevalence and age of onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry, 62*, 593–768. Overall prevalence estimates of mild, moderate, and serious conditions combined are drawn from the Federal Register and from Kessler et al. (2012). Severity of 12-month DSM-IV disorders in the National Comorbidity Survey Replication Adolescent Version. *Archives of General Psychiatry, 6*9(4), 381–389.

[20] "In poverty" refers to the number of individuals below 200% of the federal poverty level for the specified region.

[21] Holzer, C., Nguyen, H., & Holzer, J. (2016). *Texas county-level estimates of the prevalence of severe mental health need in 2015*. Dallas, TX: Meadows Mental Health Policy Institute. The overall prevalence (including mild, moderate, and severe conditions) are drawn from the national sources identified in the note above. The Kessler et al. (2012) breakouts yield slightly different numbers of youth with serious conditions than are estimated in the more Texas-specific SED estimates produced through the Holzer/MMHPI algorithms. For this reason, we use our SED estimates and subtract them from the nationally-based overall prevalence figures to produce the mild-moderate total.

[22] Meadows Mental Health Policy Institute (2015). *Estimating the percentage of lower-income youth with serious emotional disturbances who need time-limited, intensive home/family/community-based services*. Unpublished documents and data. Based on work in multiple states that have developed community-based service arrays in response to system assessments and Early and Periodic Screening, Diagnostic and Treatment (EPSDT) legal settlements (WA, MA, CT, NE, and PA), and based on the input of leading national experts on the need for wraparound services.

[23] Kessler, R.C., et al. (2012). Prevalence, persistence, and sociodemographic correlates of DSM-IV disorders in the National Comorbidity Survey Replication – Adolescent Supplement. *Archives of General Psychiatry, 69*, 372-380. Estimates for depression, post-traumatic stress disorder, and bipolar disorder were calculated by multiplying the estimate of the 12-17 population by the prevalence estimate for each respective disorder. Kessler and colleagues did not include some specific diagnoses, such as schizophrenia and obsessive-compulsive disorder; we used other sources for estimating prevalence of those and other conditions not reported in Kessler et al., 2012.

Mental Health Condition	Age Range	Prevalence
Harris County Child / Youth Population		
First Episode Psychosis (FEP) Incidence – New Cases Per Year[24]	12–17	200
Schizophrenia[25]	12–17	900
Posttraumatic Stress Disorder	12–17	15,000
Self-Injury/Harming Behaviors[26]	12–17	35,000
Obsessive-Compulsive Disorder – Children/Youth[27]	6–17	15,000
Eating Disorders[28]	12–17	3,000
Substance Use Disorders [29]	12–17	20,000

[24] Kirkbride, J. B., Jackson, D., Perez, J., Fowler, D., Winton, F., Coid, J. W., Murray, R. M., & Jones, P. B. (2013, February). A population-level prediction tool for the incidence of first-episode psychosis: Translational epidemiology based on cross-sectional data. *BMJ Open, 3*(2), 1–12. Note that, while approximately 200 youth each year will manifest a first episode of psychosis, not all develop schizophrenia. However, the total number of youth with schizophrenia is much larger at any one time because many, if not most, youth with psychosis fail to receive timely and effective treatment and thus suffer from the disorder for long periods of time.

[25] Androutsos, C. (2012). Schizophrenia in children and youth: Relevance and differentiation from adult schizophrenia. *Psychiatriki, 23*(Supl), 82-93. (Original article in Greek). The estimate is that among youth ages 13–18, 0.23% meet criteria for the diagnosis of schizophrenia. Another study from Sweden reported that 0.54% of youth were treated for psychotic disorders at least once during the ages of 13–19: Gillberg, C, et al. (2006). Teenage psychoses-epidemiology, classification, and reduced optimality in the pre-, per-, and neonatal periods. *Journal of Child Psychology and Psychiatry, 27*(1), 87–98.

[26] Muehlenkamp, J. J., et al. (2012). International prevalence of adolescent non-suicidal self-injury and deliberate self-harm. *Child and Adolescent Psychiatry and Mental Health,* doi: 10.1186/1753-2000-6-10

[27] There is no definitive study of obsessive-compulsive disorder (OCD) prevalence among children and adolescents. On the weight of the epidemiological evidence, we have chosen a 12-month estimate of 2% among children and youth ages 6-17. See: Boileau, B. (2011). A review of obsessive-compulsive disorder in children and adolescents. *Dialogues in Clinical Neuroscience, 13*(4), 401-411; Peterson, B. et al. (2001). Prospective, longitudinal study of tic, obsessive-compulsive, and attention-deficit/hyperactivity disorders in an epidemiological study. *Journal of the American Academy of Child & Adolescent Psychiatry, 40*(6), 685-695; and Douglas, H.M., et al. (1995). Obsessive-compulsive disorder in a birth cohort of 18-year-olds: Prevalence and predictors. *Journal of the American Academy of Child & Adolescent Psychiatry, 34*(11), 1424-1431.

[28] Swanson, et al. (2011). Prevalence and correlates of eating disorders in adolescents. Results from the National Comorbidity Survey Replication Adolescent Supplement. *Archives of General Psychiatry, 68*(7), 714–723. The prevalence estimate for eating disorders encompasses only Anorexia Nervosa and Bulimia Nervosa.

[29] Center for Behavioral Health Statistics and Quality. (2015). *Behavioral health trends in the United States: Results from the 2014 National Survey on Drug Use and Health* (HHS Publication No. SMA 15-4927, NSDUH Series H-50). Retrieved from http://www.samhsa.gov/data/

Mental Health Condition	Age Range	Prevalence
Specific Disorders – Children Only[30]		
All Anxiety Disorders – Children	6–11	45,000
Depression/All Mood Disorders – Children	6–11	4,000
Schizophrenia – Childhood Onset (before age 13)[31]	6–11	Approximately 10

However, data on the prevalence of specific disorders do not paint the entire picture of need:

- **We also know that poverty has a negative impact on the social determinants of health.** Economic stability, education, health, access to health care, and the social and community context in which children and youth live and grow all affect health, development, and morbidity.[32] Poverty, coupled with adverse childhood experiences (ACEs), can have a lasting, negative effect on a child or youth's physical and emotional well-being, and those who have experienced multiple ACEs are at highest risk for negative outcomes, including health and behavioral problems.[33] National prevalence estimates and state-level data suggest that approximately 10% of Texas children and youth have experienced three or more ACEs in their lifetime.[34] In addition, children and youth involved in the child welfare and juvenile justice systems are much more likely to have experienced ACEs.
- **While race and ethnicity are not correlated with substantial differences in the prevalence of mental health conditions, children and youth of color in Harris County are at much higher risk of poverty and its negative effects on mental health**. Two-thirds of Harris County residents identify with a race/ethnicity other than white. Among those living in extreme poverty, 87% represent a race/ethnicity category other than

[30] Data on disorders in children are not as robust as they are for youth. These estimates for children are based on adult data from Kessler et al. (2005) regarding the ages at which mood and anxiety disorders have their first onset. On average, anxiety disorders have a much earlier onset than mood disorders, with half of all anxiety disorders, but only 5% of all mood disorders, appearing in childhood (by age 11). The figures here show the number of children estimated to have ever had a mood disorder or an anxiety disorder; they are not 12-month prevalence estimates.

[31] Childhood onset schizophrenia is estimated to have a prevalence of one in 40,000 children under age 13. See Gochman, P., et al. (2011). Childhood-onset schizophrenia: The challenge of diagnosis. *Current Psychiatry Reports*, *13*(5), 321–322.

[32] Office of Disease Prevention and Health Promotion. (n.d.). *Healthy People 2020*. Retrieved from https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-health/interventions-resources

[33] Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., & Koss, M. P. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: Adverse Childhood Experiences (ACE) Study. *American journal of Preventive Medicine* 14(4), 245–258.

[34] Sacks, V., Murphy, D., Moore., K. (2014). *Adverse childhood experiences: National and state-level prevalence. Publication #2014-2*8. Bethesda, MD: Child Trends.

White. Latinos and Hispanics represent a majority of the county population living in poverty.[35]

- **Most children and youth in foster care have experienced ACEs or trauma as a result of disruptions in their family life such as abuse and neglect, separation from home and siblings, school changes, and multiple foster placements**. Children and youth in foster care experience an elevated incidence of developmental delays (25% in some age groups) and high rates of posttraumatic stress disorder (up to 25%). Over 80% of youth aging out of foster care have received a psychiatric diagnosis.[36]
- **Exclusionary school discipline (suspension and expulsion) is among the strongest correlates of future involvement in the juvenile justice system**. This "school-to-prison pipeline" first manifests in the classroom. When combined with zero-tolerance policies, a decision to refer students for discipline rather than treatment can perpetuate a sequence through which students are pushed out of the classroom and placed at higher risk for entry into the justice system. Research clearly shows that a student suspended from 9th grade is at three times the risk of future incarceration and two times the risk of dropping out, compared to other students.[37] This is not because suspensions increase the risk, but because the underlying factors (including untreated or inadequately treated mental illness) that lead to the suspension increase the odds of future incarceration or drop-out if left unaddressed. Students are also far more likely to be arrested at school than they were 10 years ago. This is in part related to the increased police presence in schools over that period. According to the U.S. Department of Justice, the number of school resource officers increased about 40% in the past 10 years. School resources officers are sworn law enforcement officers responsible for security and crime

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[35] Data were provided by the Harris Center in 2015 and verified by MMHPI. The Harris Center obtained data from the county-level race/ethnicity data from the 2012 American Community Survey. In identifying the population in poverty, the Harris Center used 100% of the federal poverty level (FPL) as the reference point.

[36] American Academy of Pediatrics. (2015). *Helping foster and adoptive families cope with trauma*. Retrieved June 22, 2017 from https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/healthy-foster-care-america/Documents/Guide.pdf. As cited in Salisbury A. L., Ponder, K. L., Padbury, J. F., Lester, B. M. (2009). Fetal effects of psychoactive drugs. *Clinics in Perinatology*, 36(3), 595–619.
Greeson, J. K., et al. (2011). Complex trauma and mental health in children and youth placed in foster care: findings from the National Child Traumatic Stress Network. *Child Welfare*, 90(6), 91–108.
Salazar A. M., Keller, T. E., Gowen, L. K., & Courtney, M.E. (2012). Trauma exposure and PTSD among older youth in foster care [published online ahead of print August 17, 2012]. *Social Psychiatry and Psychiatric Epidemiology*. doi:10.1007/s00127-012-0563-0

[37] Balfanz, R., Byrnes, V., & Fox, J. (2013). Sent home and put off-track: The antecedents, disproportionalities, and consequences of being suspended in the ninth grade. Paper presented at the Closing the School Discipline Gap: Research to Practice, Washington, DC. As cited in Losen, D.J. & Martinez. T. (2013). *Out of school and off track: The overuse of suspensions in American middle and high schools*. Center for Civil Rights Remedies at UCLA's Civil Rights Project. Retrieved from http://civilrightsproject.ucla.edu/resources/projects/center-for-civil-rights-remedies/school-to-prison-folder/federal-reports/out-of-school-and-off-track-the-overuse-of-suspensions-in-american-middle-and-high-schools/OutofSchool-OffTrack_UCLA_4-8.pdf

prevention in schools. While the increase has been driven in part by safety concerns, the vast majority of these arrests are for nonviolent offenses such as classroom disruption.[38] Being disruptive must be addressed, but so-called "zero-tolerance" policies, which set one-size-fits-all punishments for a wide range of behaviors, underlie these trends.[39] In response to state level policy changes, Harris County has dramatically reduced the number of students arrested at school, but there has not been a corresponding level of increase in access to the services needed to address the behaviors that put these children and youth at risk. The Council on State Government's (CSG) landmark study[40] in Texas that focused on the school-to-prison pipeline definitively showed the following:

- Ten percent (10%) of Texas students who receive disciplinary action drop out of school, and 31% of those who receive disciplinary action are held back at least once. Ninth-grade African-American students in Texas have a 31% higher likelihood of a discretionary school disciplinary action compared to the rate for white students.
- Hispanic students in Texas have a 16% higher likelihood of receiving a mandatory action compared to otherwise identical white students.

The table below provides estimates for the prevalence of severe mental health conditions among various demographic groups of children and youth in Harris County. Breakouts include age, gender, and race/ethnicity. For each group, the prevalence estimate for children and youth below 200% of the federal poverty level is also provided. Out of the total population of 810,000 children and youth ages six to 17, the prevalence estimates suggest there are 65,000 children and youth with SED in Harris County and that 35,000 of those live below the federal poverty level. Of children and youth with SED below the poverty level, about 20,000 are between the ages of six and 11 and about 15,000 are between the ages of 12 and 17.

[38] Petteruti, A. (2011, November). *Education under arrest: The case against police in schools.* Retrieved from https://www.ncjrs.gov/App/Publications/abstract.aspx?ID=264688

[39] Petteruti, A. (2011, November).

[40] Fabelo, T., Thompson, M.D., Plotkin, M., Carmichael, D., Marchbanks, M.P., & Booth, E.A. (2011, July). Breaking schools' rules: A statewide study of how school discipline relates to students' success and juvenile justice involvement. Council of State Governments Justice Center and the Public Policy Research Institute at Texas A&M University. Grant from the Atlantic Philanthropies and Open Society Foundations. Retrieved from https://csgjusticecenter.org/wp-content/uploads/2012/08/Breaking_Schools_Rules_Report_Final.pdf

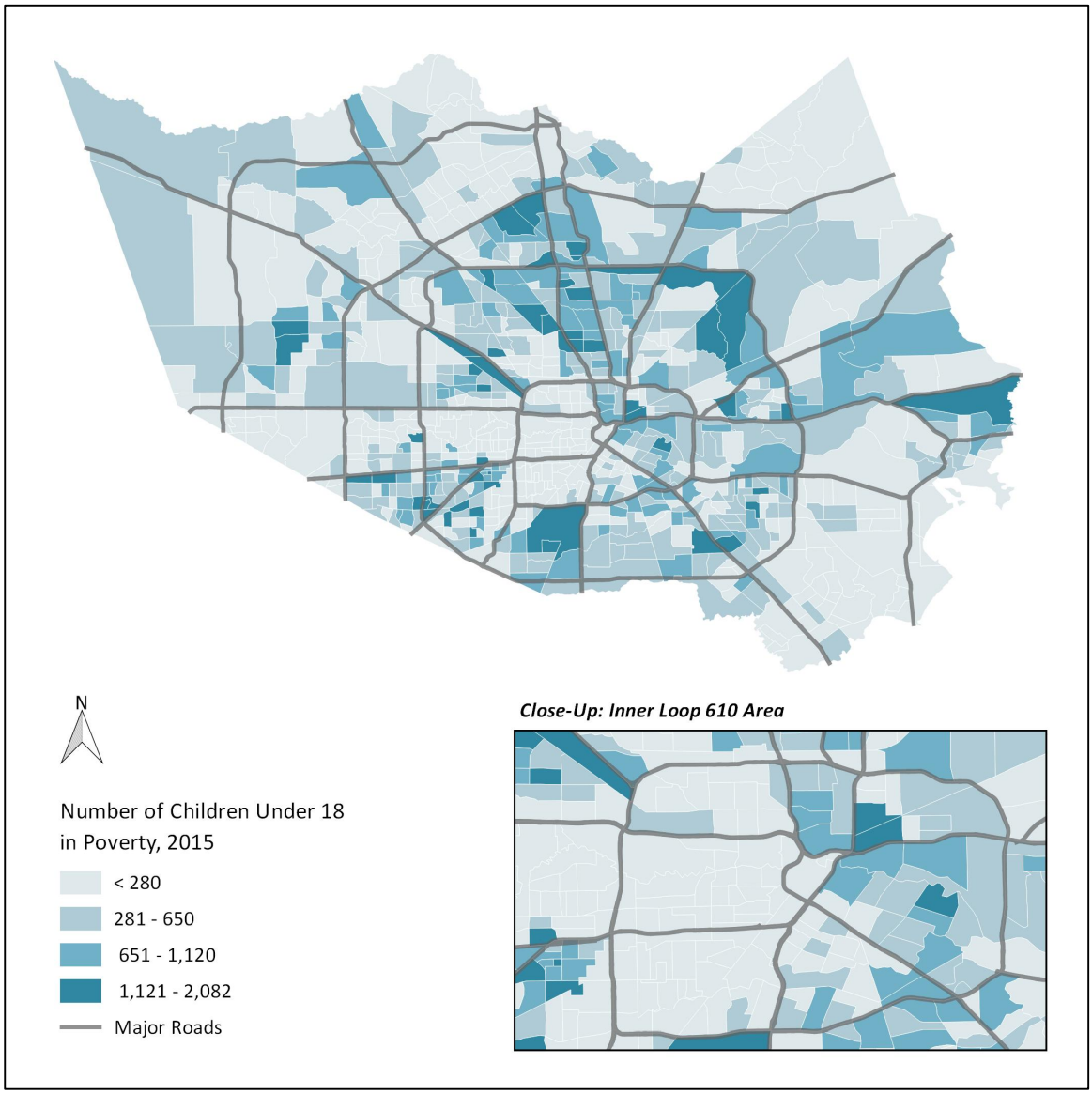
Demographics of Children and Youth in Harris County, 2015[41]

Population	Total SED Population	Total Population	Total with SED Below 200% FPL	Total Below 200% FPL
Children and Youth (6–17)	65,000	810,000	35,000	410,000
Age				
Ages 6–11	35,000	420,000	20,000	220,000
Ages 12–17	30,000	390,000	15,000	190,000
Gender				
Male	30,000	410,000	20,000	210,000
Female	30,000	400,000	20,000	200,000
Race / Ethnicity				
Non-Hispanic White	10,000	180,000	3,000	35,000
African American	10,000	150,000	8,000	90,000
Asian American / Pacific Islander	3,000	40,000	1,000	15,000
Native American	90	1,000	50	500
Multiple Races	1,000	15,000	400	5,000
Hispanic / Latino	35,000	420,000	25,000	270,000

[41] Holzer, C., Nguyen, H., & Holzer, J. (2016). *Texas county-level estimates of the prevalence of severe mental health need in 2015*. Dallas, TX: Meadows Mental Health Policy Institute. All population and prevalence estimates are rounded to reflect uncertainty in the estimation process. Because of rounding, the sum of rounded estimates may not equal the rounded sum of the exact estimates.

Mapping Poverty. Across these various risk factors, poverty is the one most comprehensively tracked, so we mapped poverty levels by geography in Harris County to help us understand needs across the county, by school district, and in reference to provider locations. The first map shows the number of children and youth in poverty per census tract in Harris County in 2015.

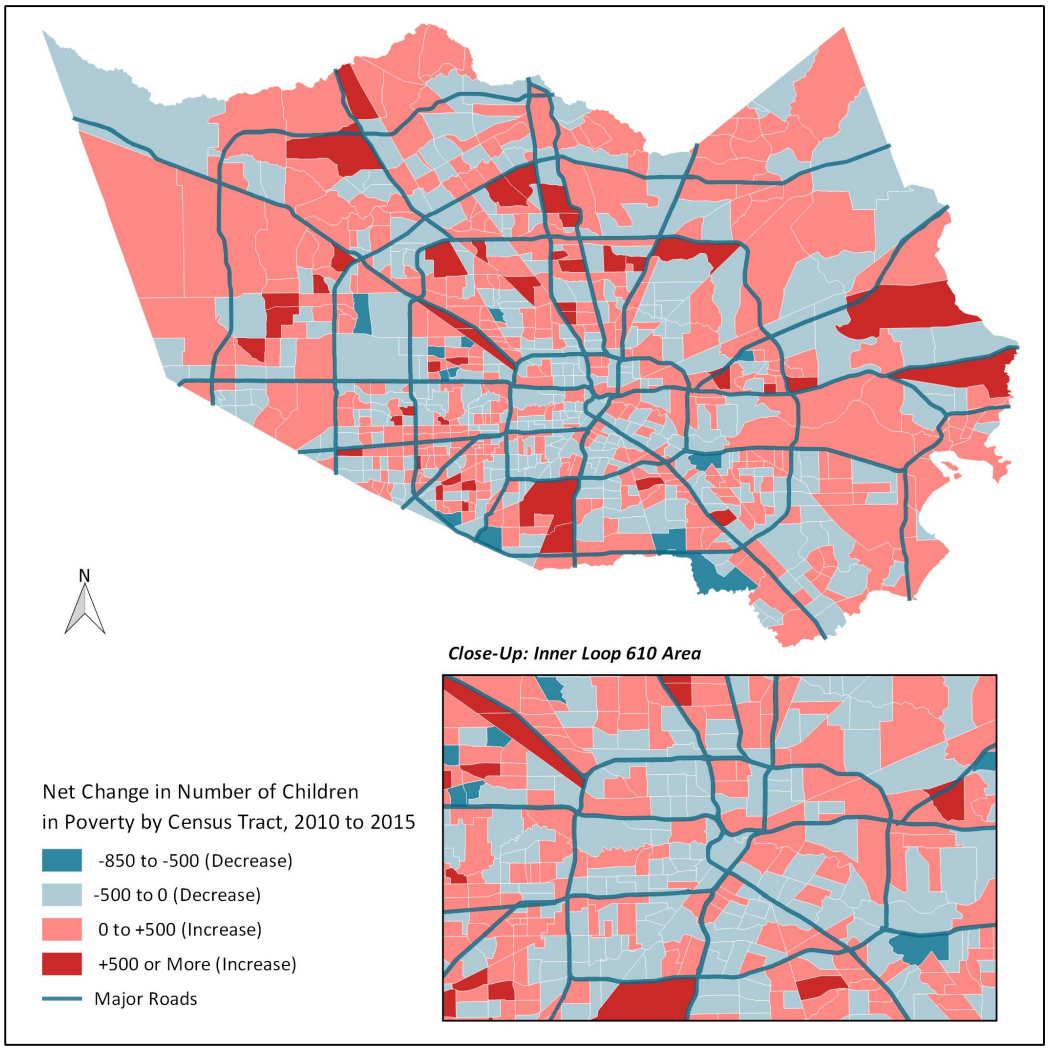
Number of Individual Children and Youth Under Age 18 in Poverty, Harris County, 2015[42]



[42] Poverty data obtained from The United States Census Bureau, American Community Survey 2015 Five-Year Estimates and 2010 Five-Year Estimates. The United States Census Bureau. (n.d.). *Table B17001: Poverty status in the past 12 months by sex by age*. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk
Major Roads shapefile obtained from the Houston Data Portal: Shapefile of Harris County Highways, available at http://data.ohouston.org

The map reveals that the areas with the highest number of children and youth in poverty are just outside the Inner Loop 610 area. There are also areas of high poverty in north and east Harris County. The next map shows the net change (increase or decrease) in the number of children and youth in poverty by census tract from 2010 to 2015. The comparison shows that areas with the highest growth in poverty are north, northwest, northeast, and directly south of the Inner Loop 610 area. Additionally, there is a sizeable area with high growth just south of the Inner Loop 610 area.

Net Change in Number of Individual Children / Youth in Poverty, Harris County, 2010–2015[43]



[43] Poverty data obtained from The United States Census Bureau, American Community Survey 2015 Five-Year Estimates and 2010 Five-Year Estimates. The United States Census Bureau. (n.d.). *Table B17001: Poverty status in the past 12 months by sex by age*. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk
Major Roads shapefile obtained from the Houston Data Portal: Shapefile of Harris County Highways, available at http://data.ohouston.org

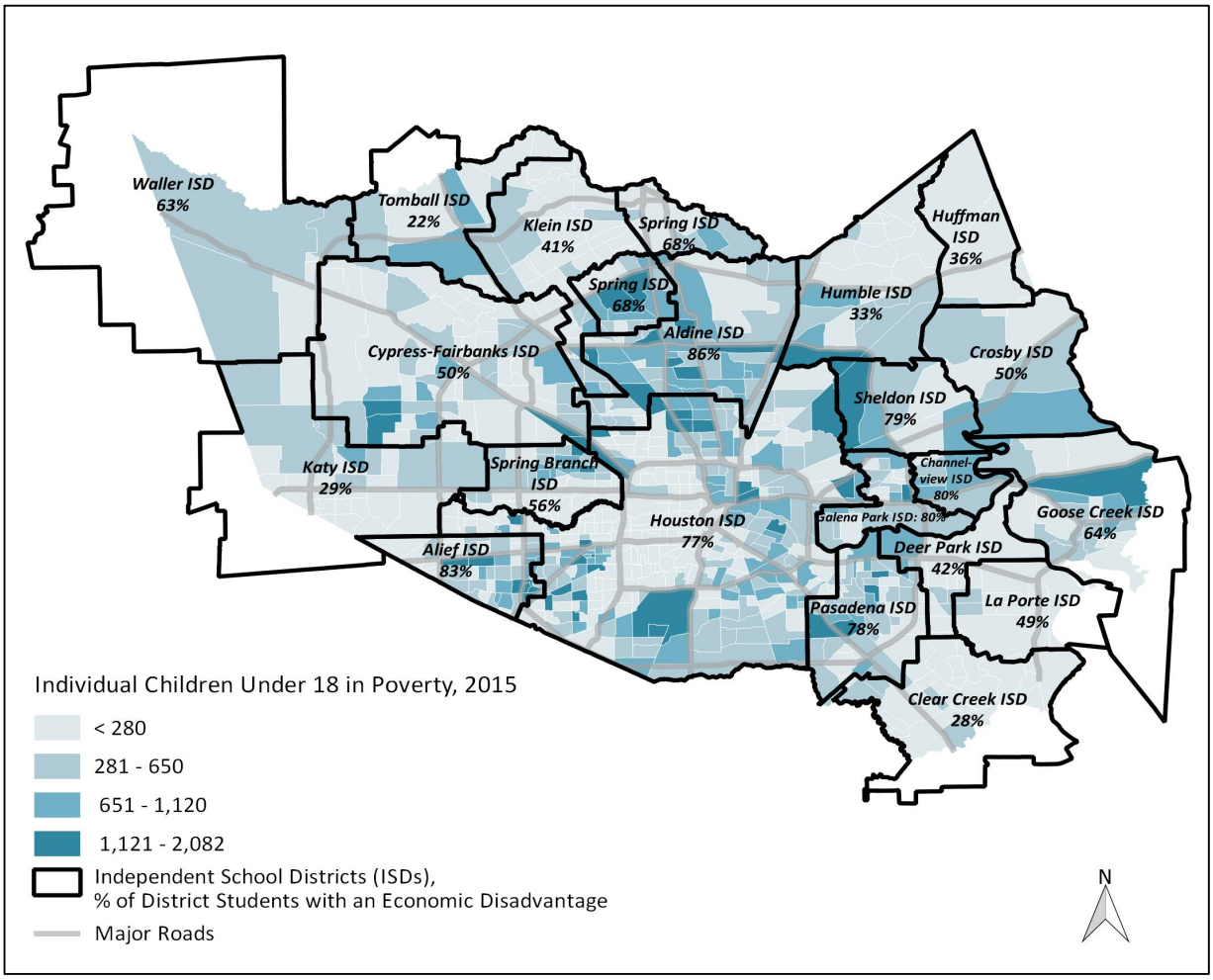
How Do Risk Factors Vary Across School Districts?

There are 21 independent school districts (ISDs) in Harris County, with 1,070 public schools serving 877,593 students.[44] Schools are natural settings to provide access to health and mental health services, but each ISD and school system has a set of local rules and policies that must be navigated to successfully implement school-based or school-linked services. Maps of individual ISDs with greater detail are provided in Appendix C of this report.

Poverty by ISD. The map on the following page includes the base layer of poverty by census tract in 2015, but adds an overlay of the independent school districts (ISDs) in Harris County. Additionally, each school district is labeled with the percentage of students with an economic disadvantage, which is calculated by school district and includes the children and youth who receive free or reduced lunches.

[44] Public School Review. (n.d.) *Harris County public schools*. Retrieved on June 24, 2017, from https://www.publicschoolreview.com/texas/harris-county

Harris County ISDs with Economic Disadvantage[45]

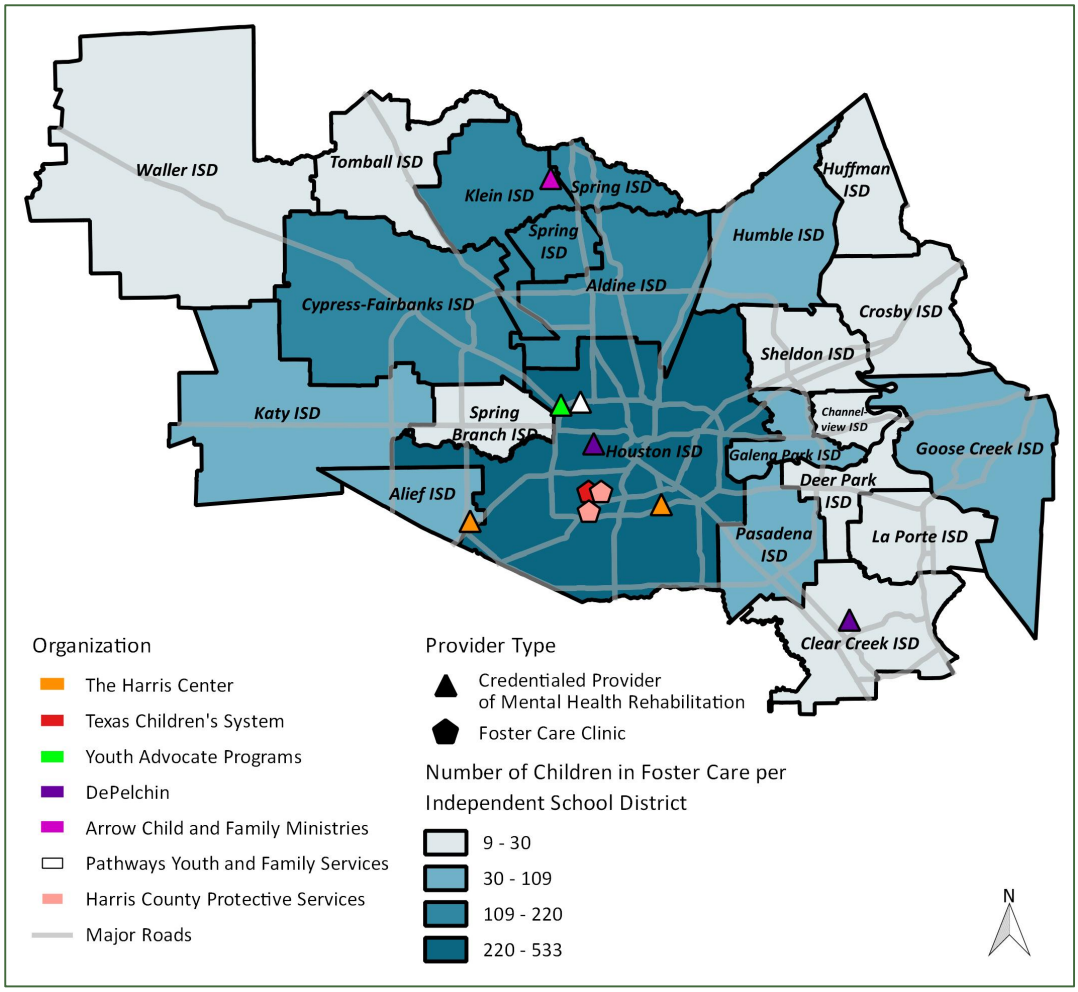


The percentage of students with an economic disadvantage generally matches with the census tract layer showing the number of children and youth in poverty. For example, Aldine and Alief ISDs both have high rates of children and youth with an economic disadvantage (both above 80%), and both encompass census tracts with a high number of children and youth living in poverty. Likewise, Clear Creek ISD has a low percentage of students with an economic disadvantage and no areas with high poverty counts by census tract. In contrast, Tomball ISD has some areas with high numbers of children and youth living in poverty; however, because it also includes areas with lower poverty, the district as a whole has a low percentage of students with an economic disadvantage.

[45] Independent school district boundaries obtained from The Texas Education Agency. (n.d.) *Texas Education Agency public open data site, current 2014-2015 statewide school districts for Texas*. Retrieved from http://schoolsdata2-tea-texas.opendata.arcgis.com/datasets/e115fed14c0f4ca5b942dc3323626b1c_0
The number of students with an economic disadvantage was obtained from The Texas Education Agency. (n.d.). *2016-2017 economically disadvantaged students, statewide totals*. Retrieved from https://rptsvr1.tea.texas.gov/cgi/sas/broker

We also looked at a daily snapshot of the number of children and youth in foster care per ISD. The next map shows a base layer of this population per school district. These data were obtained from the Texas Department of Family and Protective Services for a single day in early 2017; daily rates are approximately half of the annual number of children and youth in foster care. The map also includes the locations of mental health rehabilitation providers and foster care-specific clinics that will be discussed in more detail later. Several of the school districts in north Harris County, including Cypress-Fairbanks, Klein, Spring, and Aldine ISDs, have high counts of children and youth in foster care but do not have a mental health rehabilitation provider or a foster care clinic.

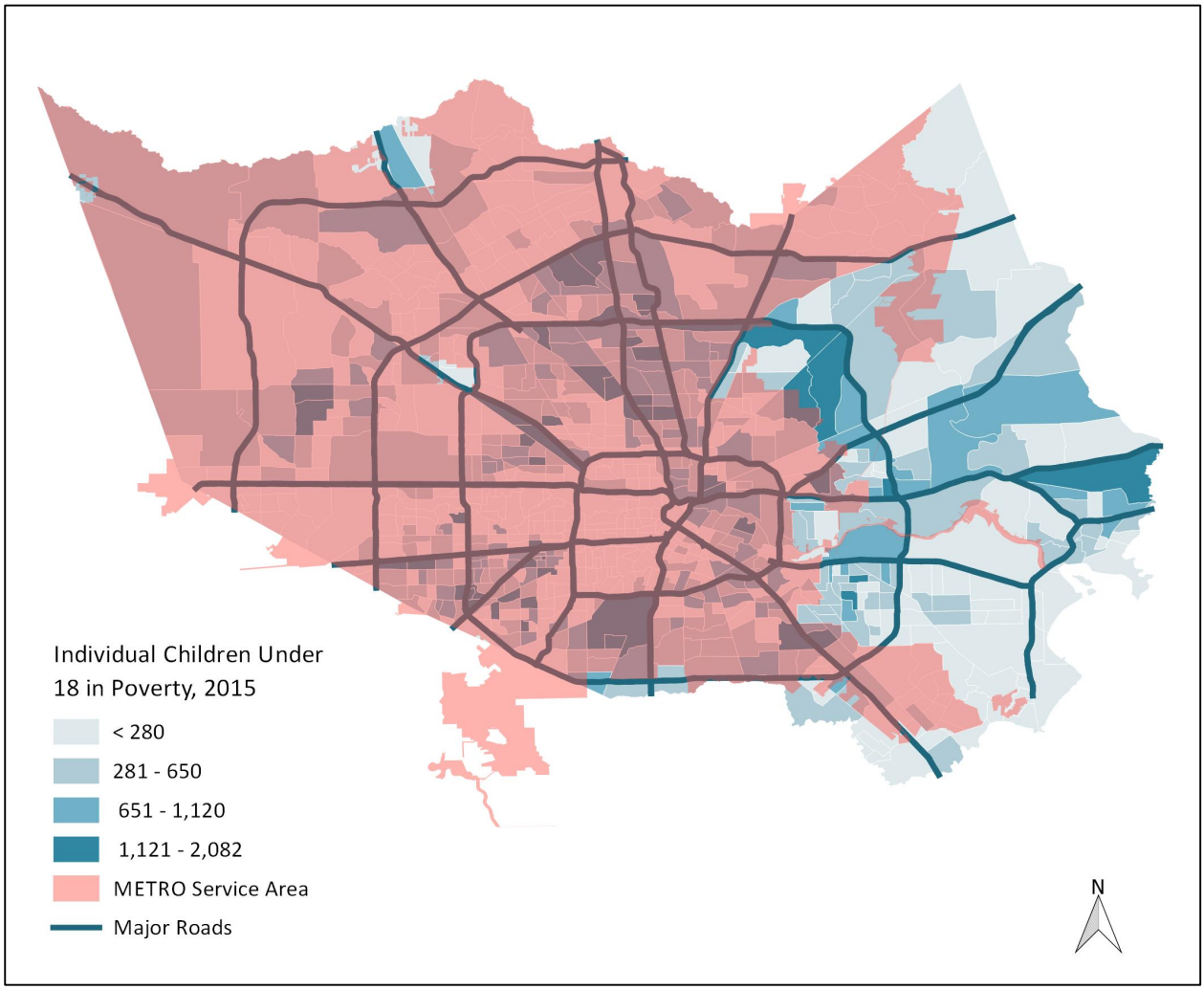
Children and Youth in Foster Care Per School District and Mental Health Rehabilitation Clinics[46]



[46] Major Roads shapefile obtained from the Houston Data Portal: Shapefile of Harris County Highways, available at http://data.ohouston.org. Independent school district boundaries obtained from The Texas Education Agency. (n.d.)

Public Transportation. The map that follows shows the service area for the Metropolitan Transit Authority of Harris County (METRO). There is no public transportation for people living in east Harris County. Considering the few providers available in east Harris County and the lack of public transportation, it may be difficult for some individuals to access needed services.

METRO Service Area[47]



Texas Education Agency public open data site, current 2014-2015 statewide school districts for Texas. Retrieved from http://schoolsdata2-tea-texas.opendata.arcgis.com/datasets/e115fed14c0f4ca5b942dc3323626b1c_0.
The number of children in foster care per district was obtained from the TDFPS IMPACT system and is current, 2017 data. Foster Care Clinics obtained via personal communication with Joel Levine.

[47] Poverty data obtained from The United States Census Bureau, American Community Survey 2015 Five-Year Estimates and 2010 Five-Year Estimates. The United States Census Bureau. (n.d.). *Table B17001: Poverty status in the past 12 months by sex by age*. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk

How Geographically Accessible Are Mental Health Services?

Using poverty as a proxy for highest need, given that rates of mental illness and barriers to care are highest for children and youth in poverty, we then looked at the geographic accessibility of major providers with current and potential capacity to address mental health needs. The maps in this section show the geographical accessibility to various health and mental health systems throughout Harris County. There is limited geographical access for almost every service type in the areas with the highest growth in poverty: north, northwest, and northeast of the city center within the Inner Loop 610 area. Additionally, a sizeable area just south of the city center shows high growth in poverty and limited access to providers.

We first looked at three of the largest health networks serving Harris County children and youth, all of which have the potential to serve as a base of integrated behavioral health capacity over time – Texas Children's Health System (Texas Children's), Memorial Hermann Health System (Memorial Hermann), and Harris Health. As will be discussed in more detail later in the report, Texas Children's is just beginning to roll out integrated behavioral health, whereas Memorial Hermann has been delivering integrated behavioral health in its school-based clinics for many years. Neither system offers psychiatric inpatient capacity in its hospitals.

Harris Health System (Harris Health) operates 24 general primary care clinics, three of which ae dedicated pediatric and adolescent primary care clinics. It also operates five additional school-based clinics. Behavioral health services for children and youth are provided at one of the pediatric and adolescent clinics, one of the school-based clinics, and three of the general clinics. Harris Health also operates one of the anchor psychiatric hospitals in the region, Ben Taub Hospital. Its psychiatric units typically accept only adult patients, but in times of high need it will serve some adolescents. While some of its behavioral health care is integrated depending on the site, most of the behavioral health care is provided as specialty care.

Regarding the maps:

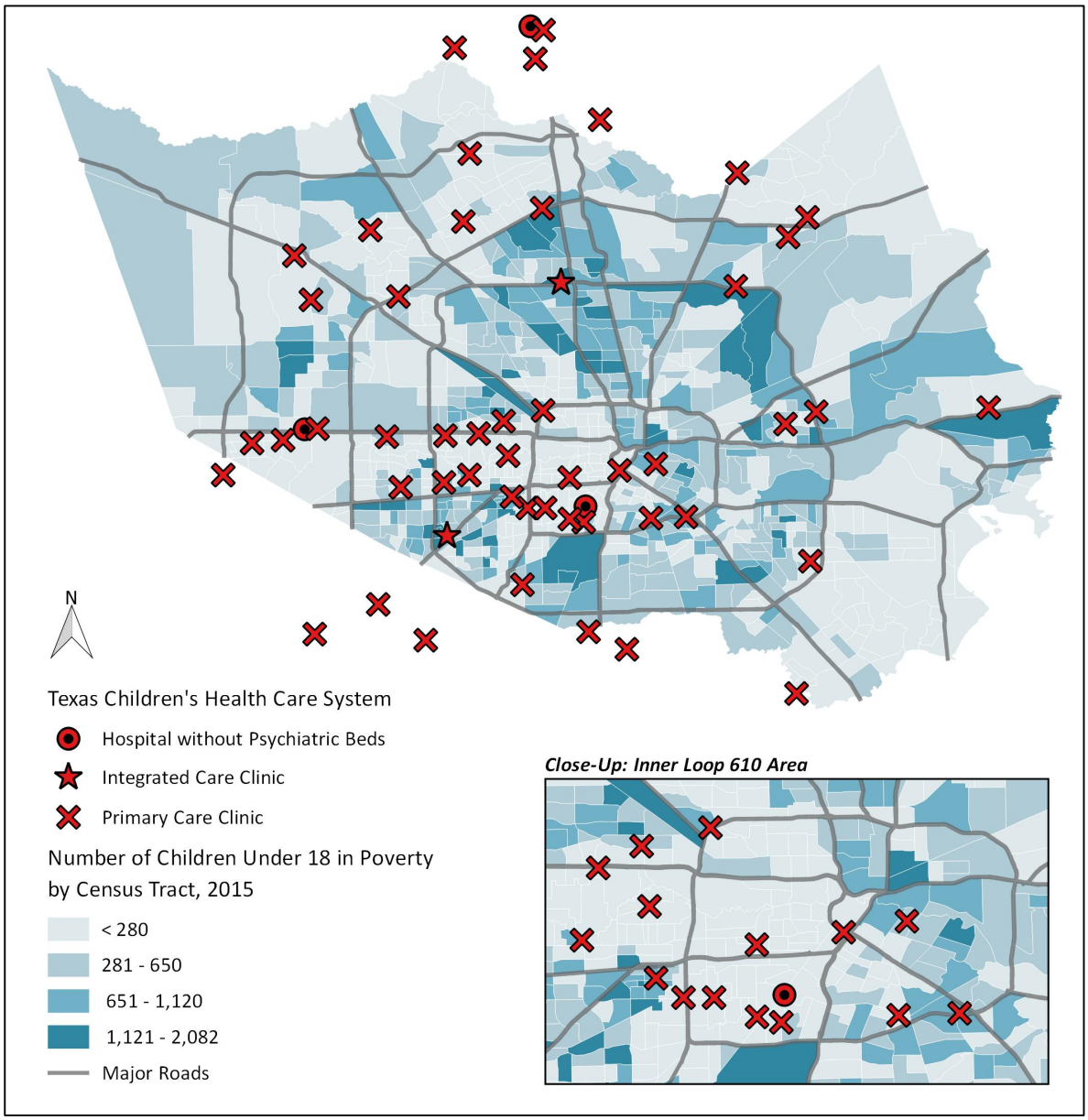
- The first map shows the Texas Children's Health System with the locations of the Texas Children's hospitals, its children's clinics, and Health Plan Integrated Care clinics.
- The second map shows the Memorial Hermann Health System (Memorial Hermann) with the locations of the Memorial Hermann hospitals and the Memorial Hermann school-based clinics. The school-based clinics are generally located in south Harris County. Further, none of the hospitals indicated having inpatient psychiatric beds for children or adolescents. Therefore, children in west and east Harris County with

Major Roads shapefile obtained from the Houston Data Portal: Shapefile of Harris County Highways, available at http://data.ohouston.org. METRO service area obtained from the Metropolitan Transit Authority of Harris County ("METRO"), GIS Data Layers at http://www.ridemetro.org/pages/newsdownloads.aspx.

psychiatric needs have limited access to Memorial Hermann services. This trend is especially true for children in east Harris County, where public transportation is very limited.

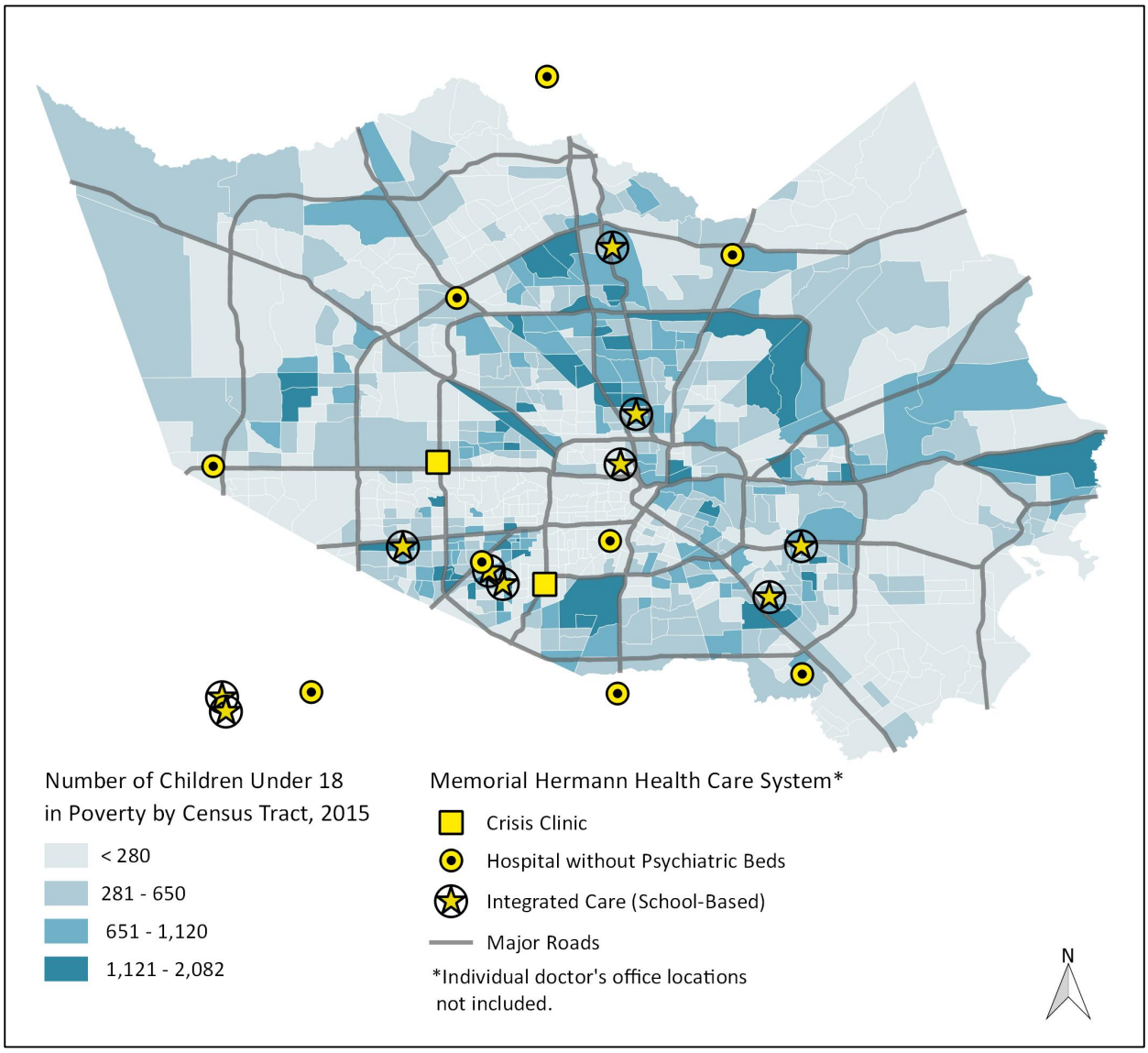
- The third map depicts the Harris Health System, showing locations for all of its clinics and highlighting the three pediatric and adolescent primary care clinics, the five school-based primary care clinics, and three general clinics that offer specialty behavioral health care.

Texas Children's Health System[48]



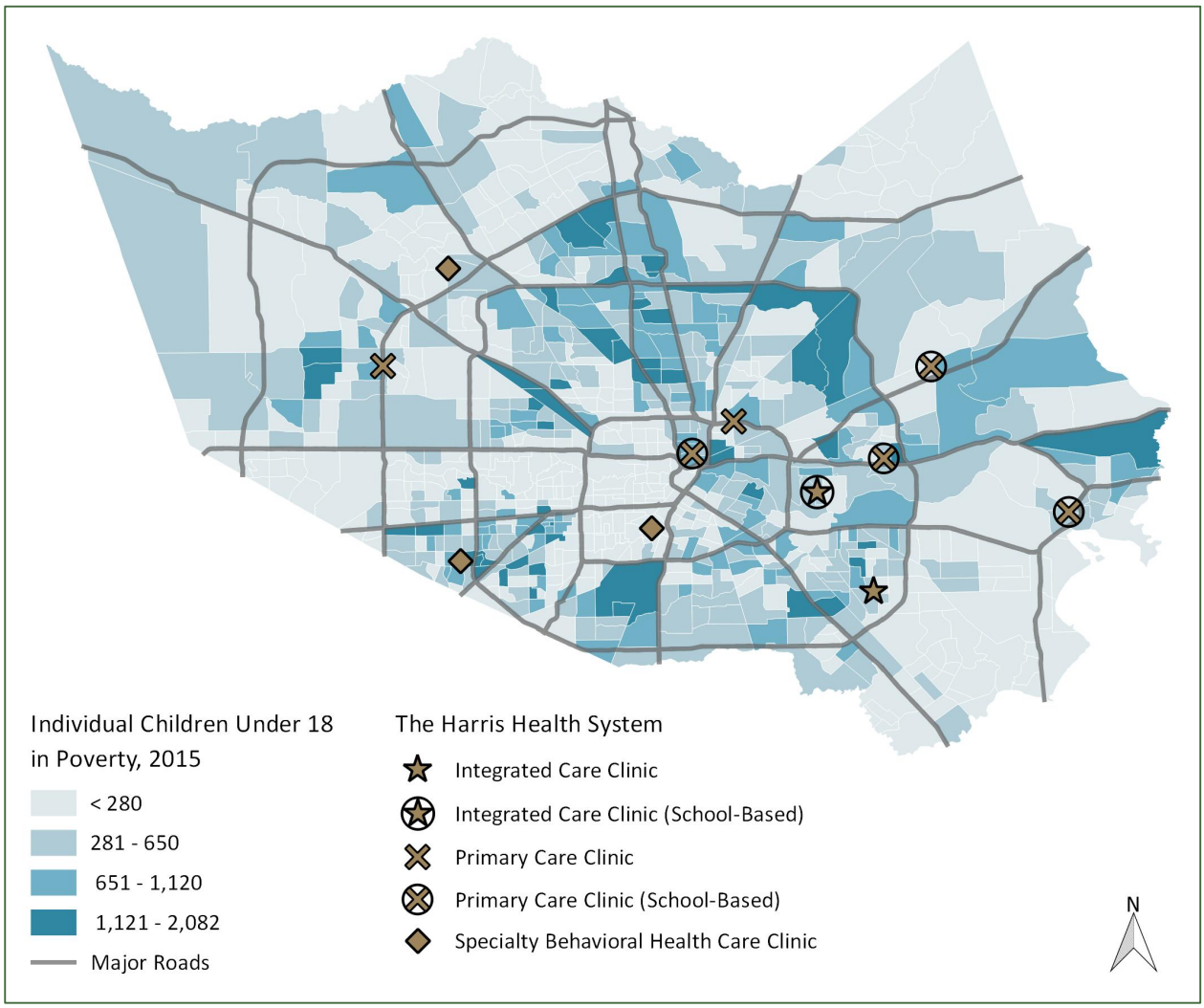
[48] Poverty data obtained from The United States Census Bureau, American Community Survey 2015 Five-Year Estimates and 2010 Five-Year Estimates. The United States Census Bureau. (n.d.). *Table B17001: Poverty status in the past 12 months by sex by age*. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk
Major Roads shapefile obtained from the Houston Data Portal: Shapefile of Harris County Highways, available at http://data.ohouston.org. Texas Children's locations obtained from the Texas Children's Hospital website, available at http://www.texaschildrens.org.

Memorial Hermann Health System[49]



[49] Poverty data obtained from The United States Census Bureau, American Community Survey 2015 Five-Year Estimates and 2010 Five-Year Estimates. The United States Census Bureau. (n.d.). *Table B17001: Poverty status in the past 12 months by sex by age*. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk
Major Roads shapefile obtained from the Houston Data Portal: Shapefile of Harris County Highways, available at http://data.ohouston.org. Memorial Hermann hospital locations obtained from the American Survey of Hospitals 2013 Annual Survey. School-based clinics obtained from the Memorial Hermann website, http://www.memorialhermann.org.

Harris Health System[50]

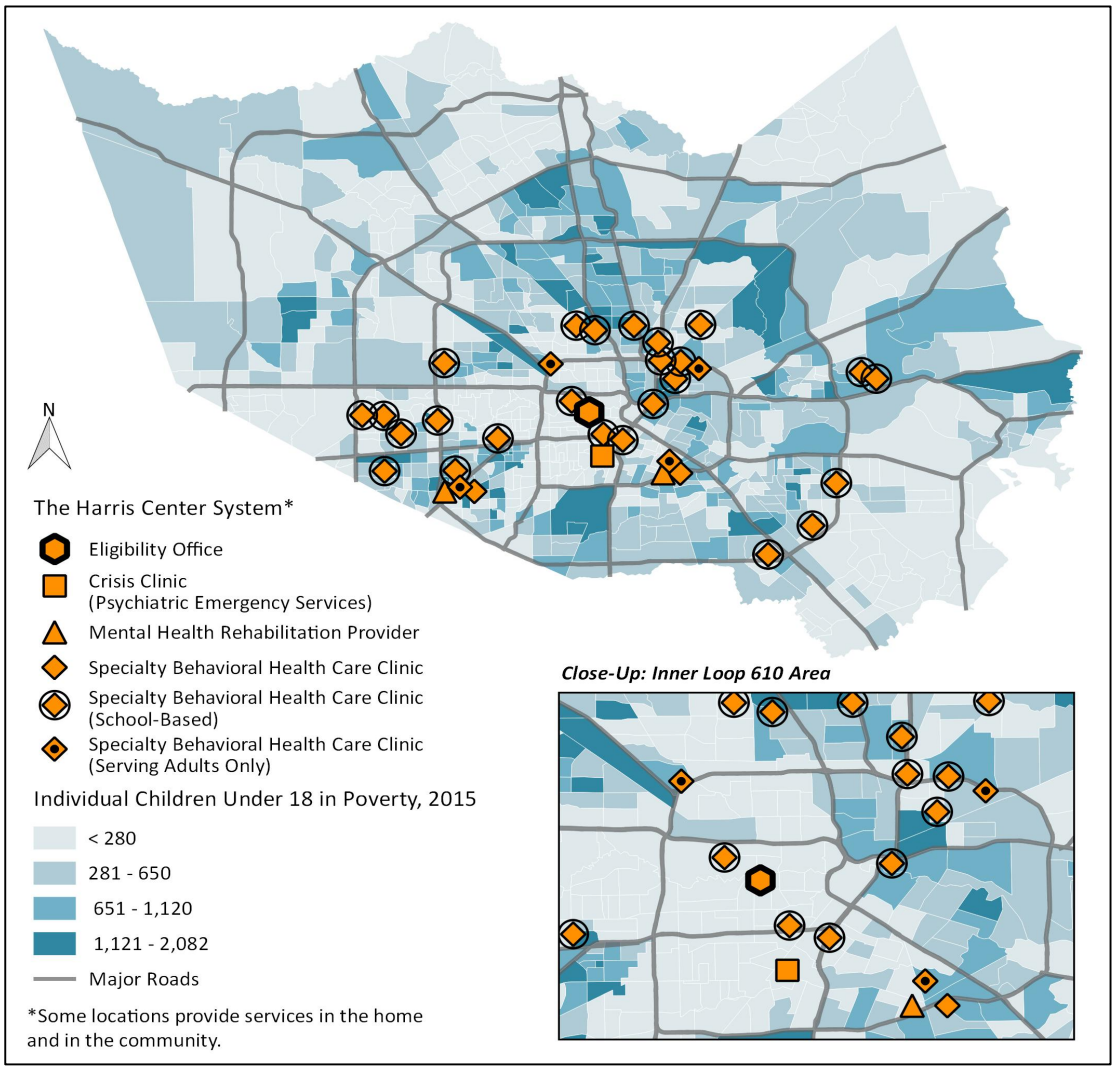


We also mapped clinic and school-based sites for The Harris Center for Mental Health and IDD (Harris Center), which is also the local mental health authority (LMHA) for Harris County. The Harris Center is the primary public mental health provider for Harris County, and until 2013 it was the only provider eligible to offer a continuum of rehabilitation services for children, youth, and families with higher needs. The following map of the Harris Center System combines the

[50] Poverty data obtained from The United States Census Bureau, American Community Survey 2015 Five-Year Estimates and 2010 Five-Year Estimates. The United States Census Bureau. (n.d.). *Table B17001: Poverty status in the past 12 months by sex by age*. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk
Major Roads shapefile obtained from the Houston Data Portal: Shapefile of Harris County Highways, available at http://data.ohouston.org. Harris Health outpatient clinics obtained from the Harris Health website, www.harrishealth.org, and via personal communication with Dr. Shah at Harris Health.

Harris Center child-serving clinics (not clinics that only serve adults) with the Harris Center school-based clinics. There are no clinics of either type in the northern, western, or eastern parts of Harris County. South central Harris County also lacks a clinic despite having an area of higher poverty. The Harris Center's intake center is not easily accessible to high poverty areas.

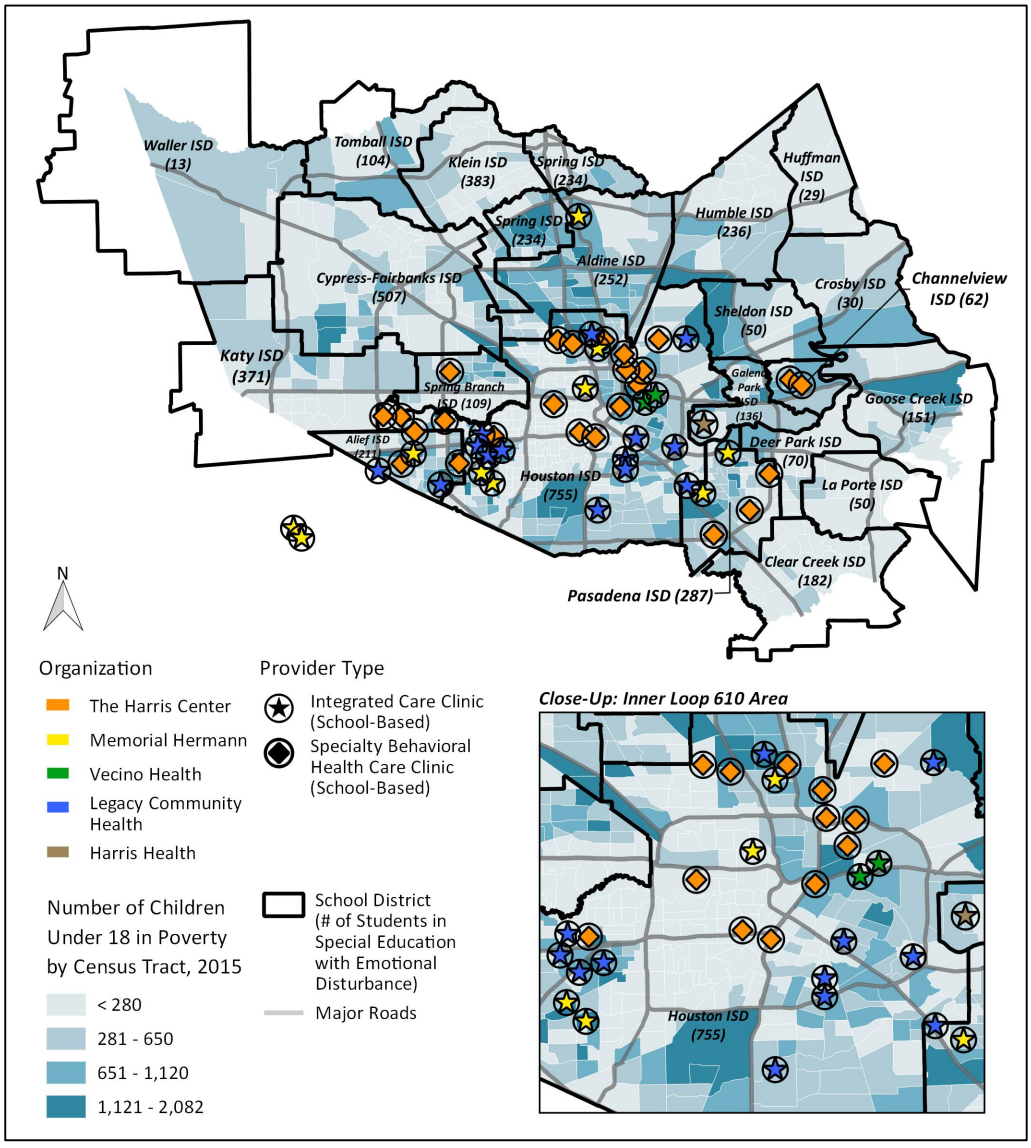
The Harris Center System[51]



[51] Poverty data obtained from The United States Census Bureau, American Community Survey 2015 Five-Year Estimates and 2010 Five-Year Estimates. The United States Census Bureau. (n.d.). *Table B17001: Poverty status in the past 12 months by sex by age*. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk
Major Roads shapefile obtained from the Houston Data Portal: Shapefile of Harris County Highways, available at http://data.ohouston.org. The Harris Center Child-Serving Clinic locations obtained from the Harris Center for Mental Health and IDD website, available at http://www.mhmraharris.org. School-based clinic locations obtained via personal communication from the Harris Center.

The next map combines the school-based resources from the Memorial Hermann and Harris Center systems, plus additional resources from two leading federally-qualified health center systems with school-based integrated behavioral health capacity: Legacy Health System and Vecino Health. The map overlays the locations of the school-based clinics onto a map showing both the number of children and youth in poverty by census tract and the number of students with special education for emotional needs per ISD.

School-Based Clinics Compared to Indicators of Need by ISD[52]



[52] Poverty data obtained from The United States Census Bureau, American Community Survey 2015 Five-Year Estimates and 2010 Five-Year Estimates. The United States Census Bureau. (n.d.). *Table B17001: Poverty status in the past 12 months by sex by age*. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk

Larger school districts, such as those in Harris County, have higher than average numbers of students in special education. The map also shows concentrations of school-based clinics in the city center within the Inner Loop 610 area as well as in the southwest area of the county.

Comparing Harris County to the Ideal System of Care

This section of the report combines the geographic and needs analyses described above with data on service capacity and quality from archival sources and the stakeholder interviews, and compares that to the capacity and distribution of the main types of services available for each of the four components of the "Ideal System of Care" described in the first section of this report.

Component 1: Harris County's Integrated Primary Care Capacity

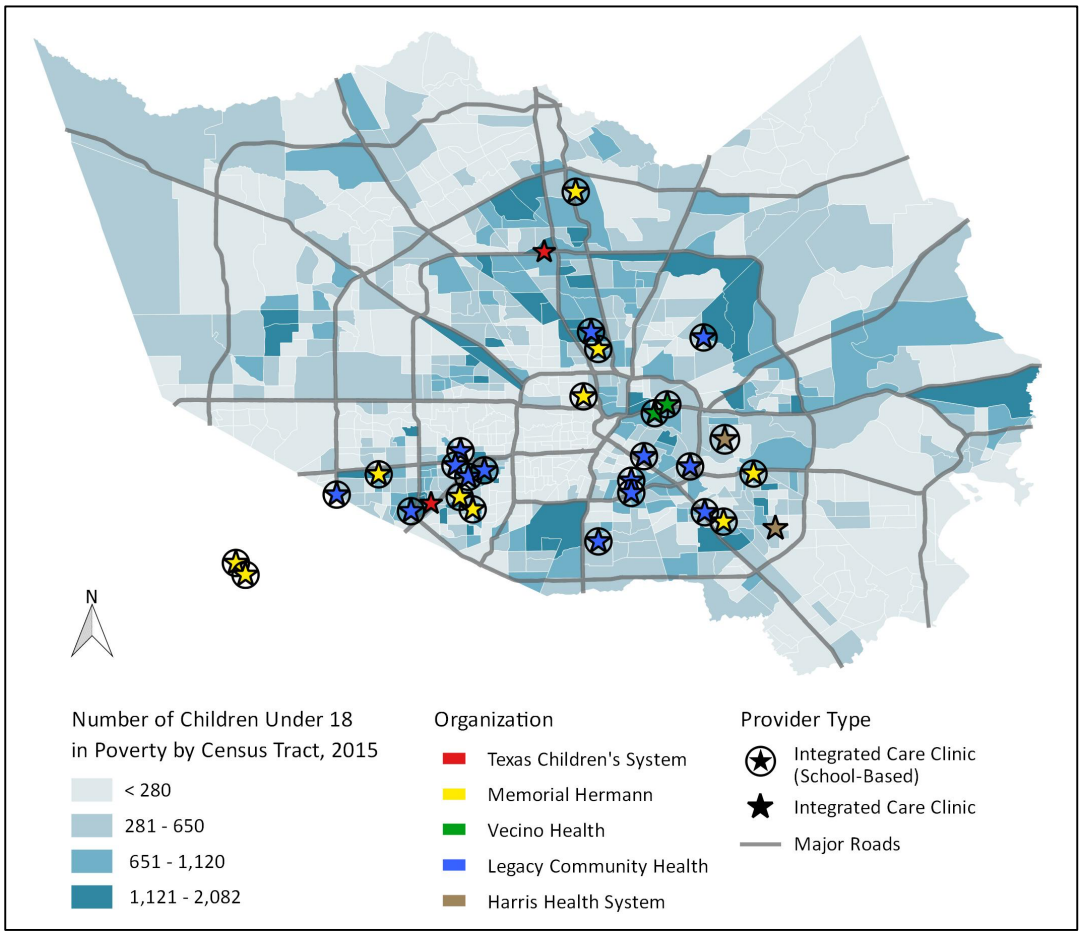
How Accessible Are Integrated Primary Care Services?

Few communities in the nation and no community in Texas has a substantial base of integrated primary care services. For Harris County, while there are multiple systems with at least some fully functional or new integrated care capacity in which behavioral health and primary care are co-located, access is very limited, especially in high poverty areas. We identified six integrated care programs in Harris County, including hospital-based services and school-based clinics. The map that follows shows that most integrated care providers are in central Harris County with few providers serving the children and youth in other areas.

Major Roads shapefile obtained from the Houston Data Portal: Shapefile of Harris County Highways, available at http://data.ohouston.org. The number of students receiving special education because of emotional disturbance was obtained from the Texas Education Agency. (2017). *PEIMS standard reports, special education reports, 2016-2017*. Retrieved from https://rptsvr1.tea.texas.gov/adhocrpt/adser.html

School clinic data obtained via personal communication with the Harris Center and Legacy Community Health, and through the Memorial Hermann website, http://www.memorialhermann.org, and the Vecino Health website, http://www.vecinohealthcenters.org.

Integrated Primary Care Service Sites[53]



How Many Children and Youth Receive Integrated Primary Care?

Based on the prevalence estimates, just over 200,000 children and youth have mild to moderate conditions that could be served in integrated pediatric primary care settings with the right supports. We obtained some estimates from providers about the numbers of children and youth served in integrated settings. While data sources are insufficient to determine an unduplicated count, the number served falls far below the 200,000 we estimate could be served in these settings.

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[53] Poverty data obtained from The United States Census Bureau, American Community Survey 2015 Five-Year Estimates and 2010 Five-Year Estimates. The United States Census Bureau. (n.d.). *Table B17001: Poverty status in the past 12 months by sex by age*. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk
Major Roads shapefile obtained from the Houston Data Portal: Shapefile of Harris County Highways, available at http://data.ohouston.org. School-based integrated care clinic data obtained via personal communication from Legacy Community Health, and from the Memorial Hermann website, http://www.memorialhermann.org, and the Vecino Health website, http://www.vecinohealthcenters.org. Texas Children's integrated care clinic locations obtained from the Texas Children's Hospital website, available at http://www.texaschildrens.org.

Who Are the Integrated Primary Care Providers?

We focused this review on the three of the largest health systems serving children and youth in Harris County –Memorial Hermann, Texas Children's Health, and Harris Health – as well as two leading federally-qualified health center (FQHC) providers: Legacy Community Health and Vecino Health. While this is not an exhaustive assessment of integrated primary care capacity in Harris County, it does cover many of the largest systems and all of the systems identified by key informants that provide some level of integrated behavioral health in primary care settings. These four systems also offer a base to build upon for expanding access to integrated primary care in Harris County.

Memorial Hermann School-Based Health Centers

Memorial Hermann Health System (Memorial Hermann) is the largest not-for-profit health system in Southeast Texas and has 16 hospitals and numerous specialty programs and services located throughout the Greater Houston area. Memorial Hermann, through its Community Benefit Corporation, partners with five school districts: Houston, Pasadena, Aldine, Alief, and Lamar Consolidated. Operating 10 school-based clinics in which over half of the children and youth are uninsured and about are third on Medicaid, Memorial Hermann provides a school health program designed to offer a "medical home" encompassing primary medical care, dental care, mental health counseling, social service referral, and nutrition counseling. Each clinic has a nurse practitioner/physician assistant, licensed clinical social worker, licensed vocational nurse, and receptionist with dietitian support and physician oversight provided. The social workers provide therapy for a wide variety of mental health conditions, including adjustment disorders, depression, stress, anxiety, and behavioral problems. The goals of the centers include reducing school absences and providing access to health care for children and youth who may not otherwise obtain it.[54]

The following clinics are funded by Memorial Hermann in partnership with school districts, local foundations, and state and federal grants:

- Sharpstown Health Center (Sharpstown High School, Houston ISD – formerly Jane Long Health Center)
- Burbank Health Center (Burbank Middle School, Houston ISD)
- Hogg Health Center (Hogg Middle School, Houston ISD)

School Centers' 2016 Outcomes

- ***Reduced emergency room usage for primary care***
- ***Reduced morbidity***
- ***Reduced asthma-related exacerbations, ER visits, and hospitalizations***
- ***Increased time in the classroom***
- ***Improved school performance (grades, absenteeism, suspensions/detentions, and self-reported well-being)***

[54] Memorial Hermann Health System. (n.d.). *Memorial Hermann Health Centers for Schools 2016 annual report*. Houston, TX: Author.

- Elrod Health Center (Elrod Elementary School, Houston ISD)
- Lamar Health Center (Lamar High School, Lamar Consolidated ISD/Fort Bend)
- Terry Health Center (Terry High School, Lamar Consolidated ISD/Fort Bend)
- Alief Health Center (West of Crossroads, Alief ISD)
- Nimitz Health Center (Dunn Elementary School, Aldine ISD)
- Kruse Health Center (Kruse Elementary School, Pasadena ISD)
- WAVE Health Center (Matthys Elementary School, Pasadena ISD)

These centers are open year-round, five days a week, and they serve students across elementary, middle, and high schools. In Fiscal Year (FY) 2016, 1,122 students received 7,587 therapy visits. More than 93% of the students participating in the centers were on the free/reduced cost lunch program, and about 34% of students had limited English proficiency. The data reflect the low income and diversity of the children and youth using these school centers, with 52% of children and youth served at the clinics not having any type of health care coverage and only 32% of the population served having some form of Medicaid. Two of the challenges facing these clinics are a significant gap in referral options for children and youth with more severe needs and long waiting lists to access services. Outcome data for the children and youth served show positive improvements in academic performance and functional status, and underscore the potential value in replicating these centers in other school districts for children and youth with mild to moderate conditions.

Texas Children's Hospital

While Texas Children's Hospital (TCH) offers few behavioral health services overall and no integrated care in the majority of its clinics, Texas Children's Health Plan does have an emerging integrated behavioral health capacity in two clinics and TCH is in the process of rolling out additional integrated capacity for children and youth in foster care.

At TCH, two integrated care clinics for children and women provided services to about 2,680 unique children and youth.

The Center for Children and Women (Center) is an innovative medical facility for Texas Children's Health Plan members that includes multiple service providers such as pediatrics, obstetrics and gynecology, pharmacy, optometry, dental services, behavioral health, nutrition, and speech therapy. It has two facilities, established in 2013 and 2014, that are both open seven days a week, evenings, and weekends. As of May 2017, the Center's current behavioral health team included one board-certified child and adolescent psychiatrist, two psychologists, and seven social workers. The behavioral health team's purpose is to provide counseling services within primary care as well as psychiatric consultation for medication management.

In 2016, approximately 2,680 unique children and youth were served. A strength of the model is the common electronic health record (EHR) that is shared between primary care and behavioral health providers. In addition, because behavioral health providers are integrated within primary care, a behavioral health evaluation can frequently occur the same day as the appointment with the primary care provider. The Pediatric Symptom Checklist (PSC-17) and the Edinburgh Postnatal Depression Scale are some of the behavioral health screening tools administered in the facilities. A positive screen is immediately followed up with direct contact from behavioral health services staff in the pediatric examination room. The Center is currently tracking patient completion of internal therapy appointments and hosts group educational sessions on weight management and anxiety. One key informant indicated that many patients have provided positive feedback on this collaborative model. Patients have reported they appreciate receiving accessible behavioral health services in an efficient manner and experienced less stigma with obtaining care in a primary care setting.

TCH also reported that approximately one third to one half of the children and youth in foster care in Harris County receive their medical care from one of the providers within its Texas Children's Pediatrics (TCP) provider network. To assist providers serving children and youth involved with the foster care system, TCH is developing a clinical service in which children and youth in foster care could remain within their pediatric medical home and also obtain a medical, educational, and psychosocial evaluation at a specialized, integrated clinic. Child protective services (CPS) or the primary care provider (PCP) could refer a child or youth in foster care to the foster care integrated care clinic for an evaluation during which data from medical, educational, and psychosocial records would be combined. The evaluation would also include administration of behavioral health screening tool(s) and a (Texas Health Steps) medical examination. A report would be generated from this comprehensive evaluation and sent back to the PCP, where the child would resume care.

TCH provides physical health care for one third to one half of the foster children and youth in Harris County. There is an emerging foster care integrated care clinic at TCH that will offer medical, educational, and psychosocial evaluations to help pediatric medical homes understand needed care.

TCH is also currently investigating capacity to offer trauma-focused cognitive behavioral therapy (TF-CBT), additional psychological supports, and the formation of partnerships with behavioral health service providers in the community. To this end, TCH has recruited a robust team of psychologists with particular expertise in TF-CBT to join its clinical services. In addition, the leadership of the emerging foster care integrated care clinic has a Texas Medical Center policy grant that will help inform its development.

Harris Health System

The Harris Health System (Harris Health) is a fully integrated health care system serving all residents of Harris County, with a primary focus on adults in poverty. Harris Health has close affiliations with both academic medical centers in Harris County, the Baylor College of Medicine and the University of Texas Health Center at Houston (UTHealth). The Harris Health System operates three hospitals, including Ben Taub, one of the anchor psychiatric hospitals in the region for adults (which in times of high need also serves some children and youth, as explained in more detail in the crisis continuum section of this report). In addition, it provides primary care through 19 community health centers (most focused on adults), six same-day clinics, and one school-based clinic, as well as several other specialty clinics and outreach and community-based programs. The majority of Harris Health's patients are Hispanic or African American and uninsured.

Harris Health System operates three pediatric and adolescent primary care clinics and five additional school-based clinics offering primary care services. Behavioral health services for children and adolescents are provided at one of the pediatric and adolescent clinics, one of the school-based clinics, and three of the general clinics. While some of the behavioral health care is integrated, depending on the site, most of the behavioral health care is provided as specialty care. Across these clinics, Harris Health employs one full-time child psychiatrist and 20 behavioral health specialists to provide psychiatric services, medication monitoring, short-term therapy, and psychological testing. Therapists utilize evidence-based approaches, including cognitive behavioral therapy (CBT) and Dialectical Behavior Therapy (DBT). In 2016, the Harris Health System provided outpatient therapy for 8,221 children and youth with behavioral health needs (including many with severe needs, including SED and suicidality) in ongoing outpatient therapy and medication monitoring through its outpatient clinics, according to data provided by HHSC.

Legacy Community Health

Legacy Community Health (Legacy) currently operates more integrated primary care clinics for children and youth than any other Harris County provider. Legacy is a federally-qualified health center (FQHC) system that provides adult primary care, pediatrics, obstetrics and gynecology, dental care, vision services, behavioral health services, nutrition, and comprehensive HIV/AIDS care. Legacy has locations across Houston, Baytown, and Beaumont, and it operates 11 integrated primary care clinics with on-site behavioral health specialists and 17 school-based integrated care clinics. They are a recognized leader in the community for placing a high priority on addressing social determinants of health and are actively expanding their capacity to deliver integrated primary and behavioral health services in clinic and school settings. Legacy served 7,386 children and youth from birth to 17 years of age and 5,436 patients 18 years and older.

In FY 2016, 61% of Legacy's patients lived at or below 200% of the federal poverty level, and Legacy served more than 125,000 patients (all patients, not just those with behavioral health needs), providing specialty behavioral health care to nearly 7,400 children and youth, and integrated care interventions to many more. Their Behavioral Health Services program offers assessments, medication management, therapy, and psychological testing. Legacy currently has 11 locations in which behavioral health services are offered, and data on these services are integrated within a common electronic record with its primary care providers. Its behavioral health team consists of adult and child and adolescent specialists, including psychiatrists, psychologists, licensed social workers, and other therapists.

Legacy Community Health provides school-based services at 10 Knowledge is Power Program (KIPP) schools, eight (8) YES Prep public charter schools, and one (1) new school, Cristo Rey. Through these programs, Legacy offers primary care and behavioral health services on-site for participating schools. The school-based clinics are staffed with a pediatric nurse practitioner, medical assistant, and a licensed therapist. One KIPP school has a psychiatrist available one day a week. Legacy Community Health has also partnered with KIPP and YES Prep schools to provide affordable health care services to students during school hours. In addition, Legacy has posted website information such as "How to Talk to Your Child About Bullying" as an additional resource for families.

The clinical social work team also provides families with information on school advocacy, community behavioral resources that are in the provider network of the families' insurance, and legal and other resources that address the social determinants of health. Therapies offered include evidence-based specialty behavioral health services in addition to the integrated primary care capacity, including: cognitive behavioral therapy (CBT), Dialectical Behavior Therapy (DBT), trauma-focused therapy, and individual and group therapy. The Legacy Community Health website also offers information to families on topics such as "Early Diagnosis and Intervention of Autism," providing families with a list of early warning signs that may prompt evaluations by pediatricians. Another article is "How to Recognize Anxiety in Children," which lists symptoms for families to monitor.

Key informants identified that in addition to a shortage of direct behavioral health service providers, there continues to be a lack of resources for children and youth who need more specialized behavioral health services, such as assessments for children and youth who are suspected to have autism, referrals to treatments such as Applied Behavior Analysis (ABA), and services for the transgender population.

Vecino Health Centers

Vecino Health Centers (Vecino) is a federally-qualified health center (FQHC) with multiple sites that provides access to medical, dental, and behavioral health services for children, youth, and adults. They have two main clinics in the Houston area (Airline Children's Clinic and Denver Harbor Family Clinic). Their behavioral health staff includes licensed professional counselors (LPCs) who provide individual, group, and family/couples' therapy in both English and Spanish. Last year, all of the counselors became certified in Dialectical Behavior Therapy (DBT) to help meet the higher needs of the children and youth they treat. Vecino Health Centers help individuals and families with the following behavioral health issues: depression, anxiety, substance use and abuse, trauma, domestic violence, and grief/loss. They use an integrated electronic health records for coordinating care.

In addition to their two main clinics in the Houston area, Vecino Health Centers partners with three middle and elementary schools to provide behavioral health services.

A key informant indicated that 95% to 98% of Vecino's pediatric patients have Medicaid or CHIP insurance, and Vecino serves a small percentage of uninsured people, who are offered a sliding scale for payment. Vecino counselors completed 2,023 encounters (not unique patients) last year. Schools can make behavioral health referrals to the counselors using electronic health records. Vecino also reports significant gaps in services for children and youth with more serious conditions. Currently, Vecino makes treatment referrals to the Harris Center or the Mobile Crisis Outreach Team (MCOT) for youth identified with a serious mental health condition or in response to a crisis.

Integrated Primary Care Findings

Integrated Care Finding (ICF)-1: While there are some very effective integrated care clinics, the need far outstrips the capacity, just as it does in nearly every other community across Texas and the nation. Each of the integrated care providers described above has models that can be replicated. The ideal integrated care program includes seven core components identified by MMHPI in a report for the St. David's Foundation in 2016, *Best Practices for Integrated Behavioral Health: Identifying and Implementing Core Components*.[55] These include 1) Integrated Organizational Culture, 2) Population Health Management, 3) Structured Use of a Team Approach, 4) Integrated Behavioral Health Staff Competencies, 5) Universal Screening for the Most Prevalent Physical Health and Behavioral Health Conditions, 6) Integrated, Person-Centered Treatment Planning, and 7) Systematic Use of Evidence-Based Clinical Models. Assessment of these core components of behavioral health (BH) integration can be helpful to

[55] Meadows Mental Health Policy Institute. (2016) *Best practices for integrated behavioral health. Identifying and implementing core components.* Retrieved from http://texasstateofmind.org/wp-content/uploads/2016/09/Meadows_IBHreport_FINAL_9.8.16.pdf

new providers that want to develop integrated care models and to current providers that want to improve their operations.

ICF-2: Payment models contribute to barriers in communications and consultations between and among physicians and other practitioners. Some of the barriers to collaborative models include limitations in reimbursement that do not support consultative services and coordination of care that involves multiple systems. For example, a major strength of collaborative models includes consultations between primary care providers and child and adolescent psychiatrists. However, Medicaid does not allow reimbursement for this consultative service via traditional payments, and negotiations with MCOs are necessary to obtain alternative payment methods, which can involve long processes for disbursement.

ICF-3: Pediatric primary health care providers require the support of behavioral health clinicians and prescribers to consult on behavioral health care if they are going to address screening, identification, and treatment, and ongoing support of their pediatric patients and families. Implementing integrated care without the best-practice integrated care models described in Appendix B will place more administrative and treatment burden on pediatricians and their staff.

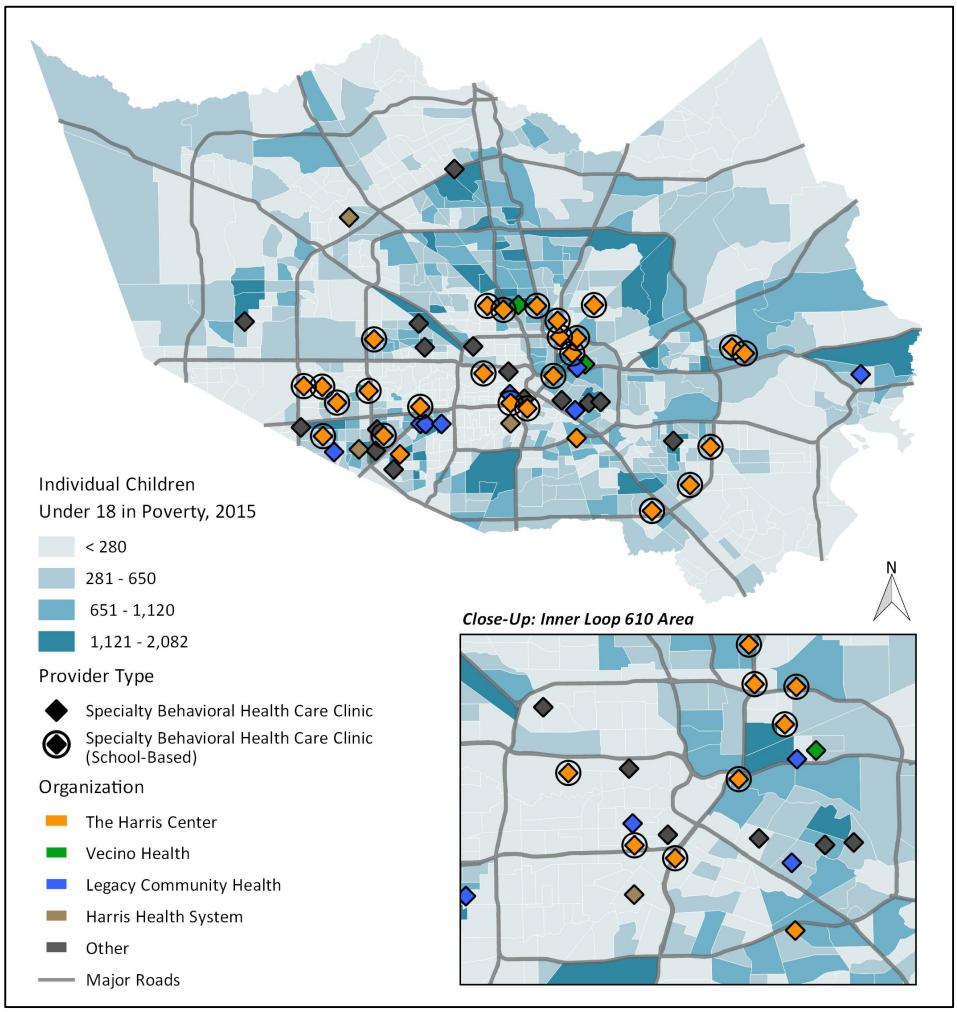
Component 2: Harris County's Specialty Behavioral Health Care Capacity

Examples of specialty behavioral health care include outpatient clinics, counseling centers, and school-based clinics that offer only mental health services (not primary care). These settings typically provide individual, family, and group therapies, including a range of evidence-based treatments for children, youth and families such as cognitive therapies and dialectical behavioral therapy. Clinics may also provide some Medicaid rehabilitation services (i.e., skills building) when certified by HHSC to offer these services (further described in the section on Component 3, Rehabilitation and Intensive Services). This section of the report describes how Harris County's Specialty Behavioral Health Programs compare with the Ideal System of Care.

How Accessible Are Specialty Behavioral Health Care Services?

The following map shows all Specialty Behavioral Health Care clinics identified through this assessment, FQHCs and community health centers (CHCs), The Harris Center for Mental Health and IDD clinic locations, Harris Health outpatient locations with specialty mental health resources, and other providers identified through our contacts with key informants. School-based locations are designated with a special symbol.

Specialty Care Clinics and Mental Health School Clinics[56]

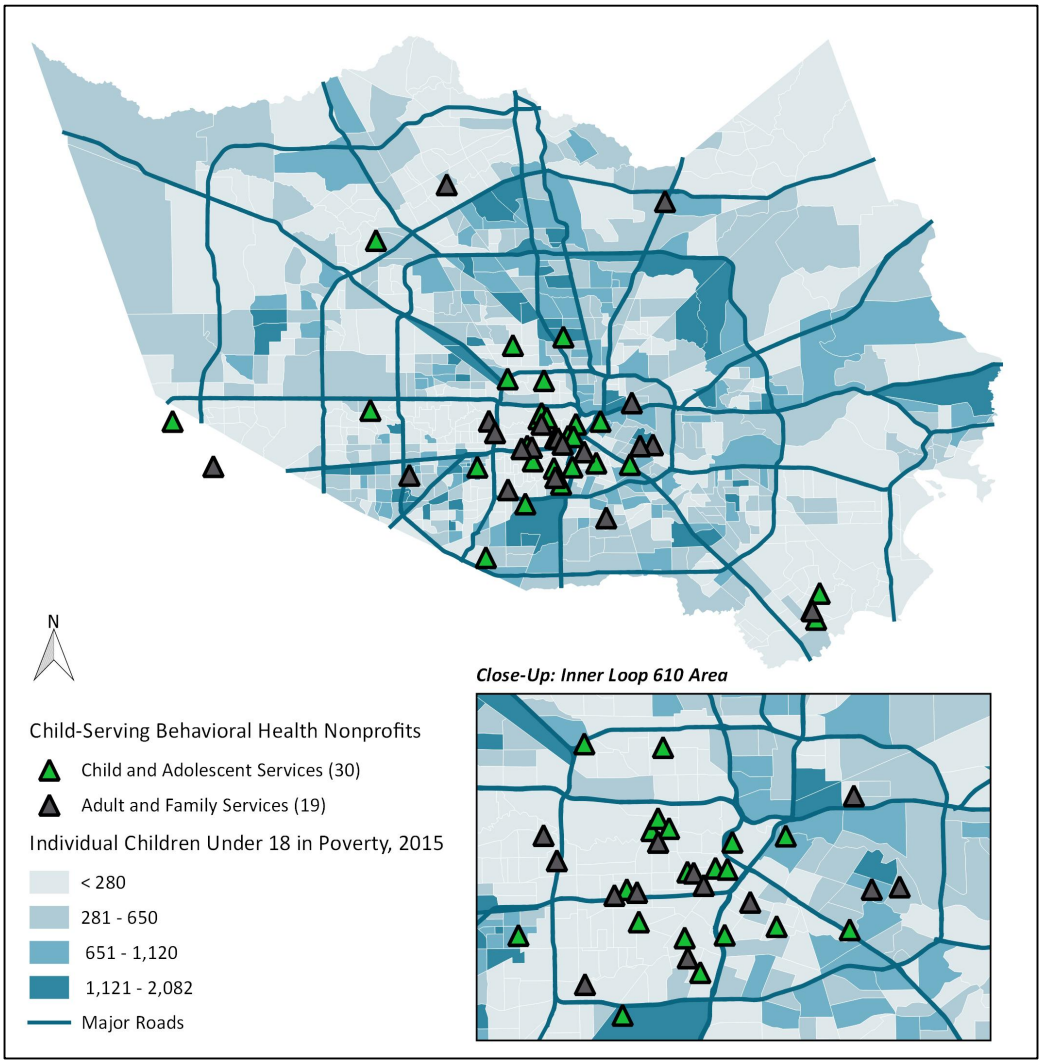


Although these providers serve a large area of Harris County, there are still some notable areas with few to no providers; these include northwest and northeast Harris County and some areas in south Harris County. The following map shows additional child- and family-serving non-profit organizations that provide specialty mental health services in Harris County. Most of these

[56] Poverty data obtained from The United States Census Bureau, American Community Survey 2015 Five-Year Estimates and 2010 Five-Year Estimates. The United States Census Bureau. (n.d.). *Table B17001: Poverty status in the past 12 months by sex by age*. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk
Major Roads shapefile obtained from the Houston Data Portal: Shapefile of Harris County Highways, available at http://data.ohouston.org. The Harris Center Child-Serving Clinic locations obtained from the Harris Center for Mental Health and IDD website, available at http://www.mhmraharris.org. FQHC/CHC locations obtained from the Texas Association of Community Health Centers, and from the individual websites of Central Care, El Centro de Corazon, Eastwood Health Center, Good Neighbor Clinic, Hope Clinic, Pasadena Health Center, and Vecino Health Centers. Harris Health outpatient locations obtained via personal communication with Dr. Shah at Harris Health.

clinics are located within the city center in the Inner Loop 610 area, with relatively no organizations identified in northwest, north, northeast, and southeast Harris County.

Child-Serving Behavioral Health Nonprofit Organizations[57]



How Many Children and Youth Receive Specialty Behavioral Health Care?

Based on the best current prevalence estimates, about 75,000 children and youth with moderate to more severe conditions would benefit from specialty behavioral health care services provided through clinics, counseling centers, and behavioral health school clinics or school-based services provided via outreach by mental health professionals.

[57] Nonprofit providers of behavioral health services obtained from Mental Health America of Greater Houston. (n.d.). *The guide: A listing of nonprofit mental health services in Harris County.* Retrieved from http://www.mhahouston.org/media/files/files/ce74590c/The_Guide__2015-17_FINAL_PDF_Rotated.pdf MMHPI removed the providers that did not serve children/adolescents.

As with most states and counties, Texas and Harris County do not maintain an unduplicated count of children and youth served in behavioral health care specialty settings because of the multiple funding streams such as Medicaid, private insurance, grant funding, and private payers. It is easier to obtain information for publicly funded providers, but it is difficult to quantify the number of children, youth, and families who receive services. While it is tempting to sum all the numbers of children and youth served in this section of the report, the truth is that nobody has comprehensive data for all outpatient specialty providers in Harris County, and it is not known how children and youth obtained such care.

Many variables impact access to care for outpatient mental health services, especially in a large metropolitan area like Harris County. Factors including insurance type, location and transportation options, levels of outreach, waitlists and capacity gaps, and the adequacy and effectiveness of the available service array are all relevant for families trying to connect to appropriate office-based mental health services. As shown in the maps of specialty behavioral health providers, finding potential providers in central Houston and west central Harris County is much easier than locating providers in southeast or southwest Harris County.

With over 1,000 public schools in 22 school districts, obtaining a sense of how many campuses provide school-based or school-linked mental health services is also challenging. Programs such as ProUnitas and Houston: reVision are unique as they focus on serving some of the most complex students in schools; however, those programs are limited to a small number of schools. Communities In Schools (CIS) Houston provides a robust service array but currently lacks the resources to expand beyond its 126 current locations. The Youth Services Division at Harris County Protective Services (HCPS) operates the Community Youth Services (CYS) program, which includes 58 staff members in 423 schools. Harris Center co-located school-based clinics serve 26 locations. However, with over 1,000 schools, demand exceeds availability.

Who Are the Specialty Outpatient Clinic and Counseling Center Providers?

The providers described below comprise a set of leading outpatient specialty mental health providers identified by our key informants, but there are hundreds more independent small group and individual practitioners within Harris County. Some of these providers have very individual areas of focus, and most are supported through specific funding streams with targeted populations, pointing to the difficulty in establishing and sustaining broader, multi-faceted, outpatient mental health programs.

Children's Assessment Center

The Children's Assessment Center's (CAC) primary focus is on the prevention, assessment, care coordination, and treatment of children and youth who have been sexually abused – a particularly serious adverse childhood experience that, if left untreated, can lead to increasingly serious mental health and health conditions. The CAC serves over 5,000 individuals each year at its single location in central Houston. The mental health workforce includes 25 master's- or doctoral-level mental health practitioners and an onsite psychiatrist, which CAC hired after identifying a scarcity of child psychiatrists in the community. Staff provide services in English and Spanish.

The mental health team uses a trauma-focused approach for the delivery of all services and serves the child and any affected family member. Services will span any length of time needed by the child, ranging from six months to six years. CAC does not charge clients or bill Medicaid or other insurance. Mental health services offered through the CAC include medication management, Trauma Focused-Cognitive Behavioral Therapy, Eye Movement Desensitization and Reprocessing Therapy, art therapy, and directive and non-directive play therapy.

Council on Recovery

The Council on Recovery's (Council) mission is to help all individuals affected by substance abuse and related disorders, including mental health and high-risk compulsive disorders. For children and youth, the Council's focus is on the early stages of substance use, offering prevention services to address substance abuse, internet addiction, gambling, and other related challenges. The Council provides therapeutic services for children, with child therapists working with children ages 12 and younger who are affected by family member addictions, addressing issues such as self-esteem, shame, and communication.

The adolescent services team offers a 12-week program for youth who engage in any of 15 high-risk behaviors (e.g., substance abuse, gambling, engaging in unsafe sexual behaviors). The program includes a parallel parent course to coach parents on how to address these issues. Through the Council, youth are also offered individual and family therapy. Council staff coordinate referrals to other services based on a youth's needs.

Family Houston

Family Houston has provided counseling for adults and children and youth for over 80 years. Counseling services for children and youth between the ages of three and 18 years include play therapy, evidence-based Parent-Child Interactive Therapy (PCIT), and Trauma-Focused Cognitive Behavioral Therapy (TFCBT). Spanish-language counseling services are also available. Other services provided by Family Houston include benefits navigation, financial coaching,

employment services, parent education, school-based substance abuse awareness, and basic needs support.

Family Houston has about 15 licensed professional counselors who are located at the central Houston office, the Woodlands, Fort Bend, and Clear Lake areas. Over the past year, Family Houston has expanded its children's mental health services by hiring an additional four new staff members.

Family Houston serves anyone with need, regardless of their ability to pay, and estimates that about 70% to 80% of the children and youth that they serve have Medicaid. Counselor caseloads range between75 and 80 individuals, and counselors aim to meet with clients every other week. Counseling services generally last 6 to 10 sessions, but additional sessions are available if needed.

Family Houston is adequately able to manage about 85% of the mental health needs of children and youth referred without a wait time. If staff members determine a client has more complex needs than they can address, they will refer them to other local providers with psychologists and psychiatrists on staff. In these cases, clients are commonly referred to Legacy Community Health, private psychiatrists, or inpatient psychiatric facilities.

The Harris Center

In addition to its more intensive rehabilitation array and crisis programs (described in more detail in the following section), the Harris Center provides outpatient services staffed by licensed clinicians for therapy, rehabilitation clinicians for skills training, certified family partners, and psychiatrists. Of the nearly 5,000 children and youth with SED served by the Harris Center in FY 2016, about 634 received outpatient therapies and medication management as distinct from more intensive interventions. The primary description of the role of the Harris Center can be found below in the section on Rehabilitative Services.

Harris Health System

As noted in the primary care section above, the Harris Health System provided outpatient therapy for 8,221 children and youth with behavioral health needs (including many with severe needs such as SED and suicidality) in ongoing outpatient therapy and medication monitoring through its outpatient clinics in 2016. This care was sometimes provided in addition to the emergency department services at Ben Taub Hospital, an adult facility which at times becomes a fallback resource for youth when other inpatient psychiatric facilities are not available. While some behavioral health care is integrated depending on the site, most of the behavioral health care is provided as specialty care.

Texas Children's Hospital Child and Adolescent Bipolar Disorders Program

The Texas Children's Hospital (TCH) Child and Adolescent Bipolar Disorders Program provides a comprehensive, family-based approach to treatment of bipolar disorders. Each child or youth has an evaluation and a treatment plan that includes medication management and relevant therapies, including evidence-based family therapy, individual cognitive behavioral therapy (CBT), and group therapy. Led by an associate professor of psychiatry and behavioral health sciences at Baylor College of Medicine, the TCH team focuses on providing psychoeducation, skill-building, communication training, and problem-solving techniques. Family and caregiver participation in therapy is important for the overall treatment of youth with bipolar disorder. Relaxation skills are a core component of the approach, and the family is encouraged to practice the technique together at home. The program is exploring how mindfulness, meditation, and yoga may enhance resilience for children and youth with bipolar disorder.

When necessary, the TCH Child and Adolescent Bipolar Disorders Program also attempts to collaborate with other systems that are involved in a child or youth's care. After obtaining consent from the guardian, the program may attempt to collaborate with the school for optimal treatment planning. In addition, telephonic communication with other medical providers serving the child or youth assists with coordinating comprehensive care.

Trauma and Grief Center for Youth

The Trauma and Grief (TAG) Center for Youth, housed within Texas Children's Hospital, provides assessment and treatment services and conducts research with children, youth, and families who have experienced trauma or loss. The TAG Center also offers training in trauma- and bereavement-informed best practices. The TAG Center's primary mission is to increase the standard of care and access to best-practice care for traumatized and bereaved children, youth, and their families. Evidence-based assessment and treatment are provided at the TAG Center, which is one of 25 national SAMHSA-funded, Category II Treatment and Service Adaptation Centers of the National Child Traumatic Stress Network (NCTSN), and is the only Category II Center to specialize in child and adolescent bereavement. The TAG Center serves children and youth between the ages of seven (7) and 17.

As of summer 2017, the TAG Center is seeing approximately 40 new children and youth each month for evaluations, and approximately 300 ongoing cases each year. Since beginning its work in Houston in 2014, the TAG Center has increased the number of families it serves, reaching the current level of about 300 children, youth, and their families and caregivers in ongoing care in 2016. The service process begins with a two-hour assessment session with the child or youth and caregivers. The assessment process employs a standardized assessment battery to evaluate specific psychological and behavioral issues associated with trauma and bereavement, including posttraumatic stress, adaptive and maladaptive grief reactions,

depression, suicide risk, and coping strategies. During the second appointment, TAG Center staff engage families and discuss assessment findings and treatment options. All of the TAG Center's interventions are assessment-driven, meaning that the assessment tools help to determine the most appropriate and beneficial intervention for each individual child or youth.

Through its work in Houston, the TAG Center has identified a lack of services to address child and youth bereavement and grief, even though the TAG Center reports that its research studies demonstrate that bereavement is one of the strongest predictors of problems with school retention, academic performance, and school connectedness, above and beyond other forms of trauma. With these concerns in mind, the TAG Center has partnered with several Harris County school districts to provide training to help schools identify students suffering from the effects of both childhood trauma and bereavement.

In addition to its work with schools, the TAG Center has initiated the Houston Child Trauma Consortium to promote networking related to trauma and to conduct a community-wide trauma needs assessment. The group has met four times over the past year. Finally, as a NCTSN Category II Center, the TAG Center is currently preparing to facilitate a learning community comprised of 10 different organizations across the United States.

Who Are the School-Linked and School-Based Services Providers?

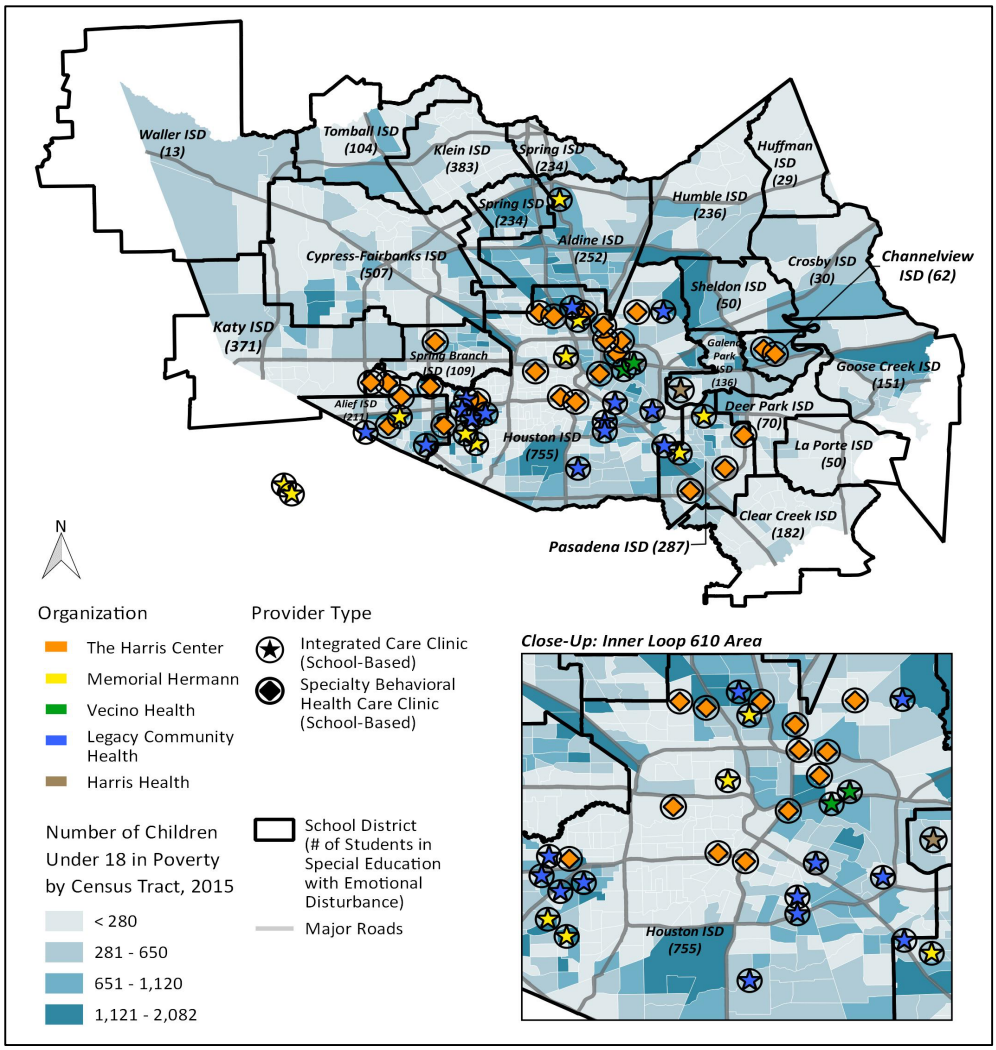
Many Harris County school districts offer school-based or school-linked programs to support student behavioral health. School-based programs include services and supports that are offered on the school campus, whereas school-linked programs have formal coordination and referral protocols for schools, and children and youth, to access outside referrals or telehealth services.[58] These programs range from school-based initiatives that address social and emotional learning to campus-based mental health clinics that provide therapy, family support, and skills training.

Key informants indicate that mental health programming in many school systems was initiated in response to specific incidents such as suicide or neighborhood violence. In other cases, school leaders reported that proactive efforts to address student behavioral health were motivated by recognition of disparities in disciplinary actions or the link between behavioral health and academic outcomes. For example, in advance of the 2016/2017 school year, Houston Independent School District (HISD) established new policies and restructured several

[58] Harvard Family Research Project. (1995). Evaluating school-linked services. Education. *Evaluation Exchange*, *1*(2). Retrieved on June 25, 2017 from http://www.hfrp.org/evaluation/the-evaluation-exchange/issue-archive/evaluating-school-linked-services/mixed-methods-practical-possibilities-for-evaluation

departments with a primary goal of reducing exclusionary disciplinary practices. HISD's focus on reducing exclusionary discipline through alternative behavior management tactics is supported by research indicating negative long-term outcomes for students who are suspended or expelled.[59] Some of the larger partnerships provide the most capacity. As described below, these programs exclusively focus on support for student behavioral health, while others such as Communities In Schools (CIS) address a range of student needs, including appropriate links and referrals to behavioral health services. The following map shows school clinics with a behavioral health program by school district.

School Clinics with a Behavioral Health Program[60]



[59] Texas Appleseed. (2015). Suspended childhood: An analysis of exclusionary discipline of Texas' pre-k and elementary school students. Retrieved from: https://spark.adobe.com/page/6dvQB/

[60] Poverty data obtained from The United States Census Bureau, American Community Survey 2015 Five-Year Estimates and 2010 Five-Year Estimates. The United States Census Bureau. (n.d.). *Table B17001: Poverty status in*

Community Youth Services

The Youth Services Division of Harris County Protective Services (HCPS) operates the Community Youth Services (CYS) program, which includes 58 staff members who work in 423 Harris County schools in 13 independent school districts (ISDs). The CYS program offers consultation and case management for students ranging from kindergarten to 12th grade. The program is designed to provide crisis intervention, supportive counseling, case management, and linkages to resources to address basic needs and complex individual and family challenges such as truancy, running away, pregnancy, substance abuse, and school problems.

Funding for the CYS staff is shared equally between participating school districts and Harris County. CYS services are voluntary and provided at no cost to the student or family. Services and resources are also available for students experiencing or at risk of running away or becoming homeless.

Communities In Schools of Houston

Communities In Schools (CIS) of Houston provides integrated student supports that empower students to succeed in school and achieve in life. For the 2016–2017 school year, CIS of Houston operated at 126 sites, serving students from pre-kindergarten to community college in five ISDs, two charter schools, two community centers, and four community college campuses. During the 2015–2016 school year, CIS of Houston served 111,285 students and their families across all of its services, 7,345 of whom received individual case management services related to mental health. CIS of Houston reports that 96% of those served showed "marked improvement" in academics, attendance, and behavior.

Case management and other services offered by CIS partners, such as individual and group counseling, are provided at no cost to students and families. Because the growing demand for CIS services exceeds organizational funding, new schools wishing to add CIS must cover 100% of the cost. Schools historically served through the program share the costs with CIS.

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the past 12 months by sex by age. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk
Major Roads shapefile obtained from the Houston Data Portal: Shapefile of Harris County Highways, available at http://data.ohouston.org. The number of students receiving special education because of emotional disturbance obtained from the Texas Education Agency PEIMS Standard reports, Special Education Reports, 2016-2017, available at tea.texas.gov. School Clinics obtained via personal communication with the Harris Center and Legacy Community Health, and through the Memorial Hermann website, http://www.memorialhermann.org, and the Vecino Health website, http://www.vecinohealthcenters.org.

The Harris Center School-Based and School-Linked Mental Health Programs

The Harris Center (Harris Center) operates the largest specialty mental health school-based initiative in Harris County. The program is available to all eligible students, regardless of payer source, but students who do not qualify for services through the Harris Center are referred to other community providers. During the 2015–2016 school year, the program offered school-based mental health services at 26 schools in five districts and served 857 students with moderate to severe needs.

Students who were involved with several service systems and presented with either more severe needs or who needed only medication services are referred to the Harris Center's Child and Adolescent Services' Southwest Children's Clinic for services. This clinic provides clinic-based and community-based mental health services to about 1,500 children and youth in 50 schools.

By way of example, Pasadena ISD includes both school-based clinics and school services on its campuses. It has a Memorandum of Understanding with both the Harris Center (mental health clinic) and Memorial Hermann (integrated care clinic) for school-based clinics and has provided SEL programming using the well-regarded Positive Behavioral Interventions and Supports (PBIS) model for over a decade and has enhanced its programming substantially in the last few years. Harris County Protective Services (HCPS) also has a Community Youth Services (CYS) worker engaged within the schools. The school district is located outside the Inner Loop 610, and staff describe their families and students as "working poor" and relatively few qualifying for Medicaid. Due to its geographic location and limited transportation, accessing services outside the school district is challenging for many families.

During the past three years, the school board renewed focus on implementing Positive Behavior Interventions and Supports (PBIS) through Safe and Civil Schools and Conscious Discipline (a social emotional learning program) in every school, especially within middle and elementary schools (with a combined student population of 38,500). Pasadena ISD staff include counselors trained by the National Institute for Trauma and Loss for Children, teachers trained to recognize early behavioral warning signs in students who may need more support or services, six district behavior support specialists, a district level licensed social worker, and paraprofessionals who support classroom teachers in addressing difficult behaviors in general education students. They also offer Youth Mental Health First Aid training and provide teachers with an overview of trauma-informed care. This work has had a positive impact on the use of zero-tolerance policies for discipline, as teachers and administrators now tend to refer students to counselors for intervention instead of only taking disciplinary action that would be more punitive and isolating, as well as less educational. The Pasadena ISD promotes early universal screening in elementary school for trauma and other mental health issues, noting that middle school is "too late" to begin screening and intervention.

Houston: reVision

Houston: reVision provides a school-based juvenile justice prevention program for middle school students in Spring Branch and Katy ISDs that also links youth to mental health services. Through a partnership with school administrators, Houston: reVision connects mentors with students who have the highest rates of disciplinary referrals. The mentors' goals are to provide students with healthy activities and positive relationships and to help avoid disciplinary experiences and referrals to alternative schools. Houston: reVision mentors will continue to work with a student if both parties see a benefit. In four years, the program has served 65 students, 64 of whom have remained in school and on track to graduate.

Mental Health America (MHA) of Greater Houston – Center for School Behavioral Health

While MHA of Greater Houston (MHA) does not offer any direct school-based services, it does provide an important array of supports to schools to help them address behavioral health issues. As such, MHA partnered with administrators from local school districts, behavioral health providers, school administrators, and other child-serving agencies and organizations to collectively identify 37 recommendations to promote school behavioral health through prevention, early identification/intervention, and treatment practices and policies. Because educators, administrators, and child serving organizations demonstrated a need for ongoing support to implement the recommendations, MHA of Greater Houston created a platform to increase support, collaboration, and coordination: the Center for School Behavioral Health (Center).

Through the Center, a variety of education and advocacy opportunities are offered to the 25 school districts and 80 organizations currently affiliated with the initiative. The Center works to fulfill its mandate for collective impact and systemic change by providing training in children's mental health, youth suicide prevention, trauma-informed classroom practice, advocacy consortiums, stigma reduction initiatives, best practices demonstration grants, and a regional conference.

Active and growing participation with the Center's collaborative network is an indication that school and community leaders across Harris County are dedicated to addressing behavioral health and speaks to the value of creating opportunities for peer learning. Participating schools and organizations expressed great excitement about the Center. They reported that their participation has been valuable in implementing practices and policies to better address student behavioral health. Schools also noted that MHA of Greater Houston's grant opportunities have been extremely helpful in bringing additional resources to students in need.

ProUnitas

ProUnitas facilitates an infrastructure of support that systematically assists students when they leave elementary school to go to middle school and then again when they transition to high school, facilitating connections to mental health and other supportive services. The ProUnitas system builds and maintains an infrastructure within school feeder patterns[61] and school districts that helps establish coordination of social, mental health, and educational services from kindergarten through the 12th grade. The resulting system connects each participating child or youth to services matched to his or her needs and strengths. One of the innovative approaches of ProUnitas is its newly developed and recently launched Student Assistance and Support Software (SASS). This software consists of an electronic student assistance form and a flagging mechanism that tracks every student on a school campus each week using a color coding system based on indicators related to their targeted outcomes. This system allows ProUnitas to access and facilitate interventions that correlate with school outcomes.

ProUnitas uses a three-pronged approach to providing services that involves schools, contracted service providers, and a community board developed by and composed of interested community members and school principals. The community board provides ProUnitas with additional context regarding how to work effectively within a community, and it advocates for providing the types of services and supports that best meet the needs of students at each school. Participating service providers sign an Agreement for Collaborative Services with ProUnitas that outlines clear expectations for their work with schools, including an agreement to adjust the approach based on outcomes.

ProUnitas' approach is data-driven, using data to improve system and service quality. Participating schools' data syncs directly with the ProUnitas SASS system, creating administrative efficiencies. The SASS system facilitates analysis of the data using an algorithm that considers risk factors such as attendance, behavior, homelessness, juvenile justice, foster care involvement, and other elements selected to anticipate the severity and urgency of a student's need. The system then generates a color based on the most complex or heightened needs. ProUnitas reports that, at the schools where it operates, between 15% and 19% of students have the most intense needs, and the system invests heavily in supporting those students. The system also serves the whole student population. ProUnitas' goal is to reduce the number of students recognized as having the most intense needs to about 3% of the student population.

[61] Feeder patterns are the flow of students through schools as they progress in their education. The patterns are determined by the location of the student's residence within the school boundary. For example, elementary schools feed middle schools, which feed high schools.

Specialty Behavioral Health Care Findings

Specialty Behavioral Health Care Finding (SBHF)-1: Office-based specialty providers are numerous, but there are gaps in access to care in the outlying geographic areas and in areas with growing rates of poverty. However, while there are capacity gaps, they are less severe than the gaps for Integrated Behavioral Health in primary care settings (Component 1) and more intensive services (Components 3 and 4).

SBHF-2: As in the rest of Texas and the nation, there is a significant gap in the availability of child psychiatrists and other prescribers for children and youth with moderate to severe behavioral health conditions who cannot be served in integrated primary care settings. By integrating psychiatrists and other licensed professionals into pediatric primary care settings, the Ideal System of Care of the future would allow many children and youth with mild to moderate mental health conditions to shift from specialty behavioral health settings to the integrated care system. This shift would allow behavioral health specialists to extend their reach in focusing on children and youth with moderate to severe conditions, re-allocating resources to serve children and youth with higher intensity needs.

SBHF-3: Harris County has a well-established platform for mobilizing efforts to address school behavioral health through MHA of Greater Houston's Center for School Behavioral Health.

SBHF-4: Harris County has some outstanding programs that provide school-linked and school-based behavioral health initiatives; however, their reach is limited given the size of Harris County. With over 1,000 public schools across Harris County, the school-based and school-linked behavioral health programs cannot meet current demand. However, there are multiple, well-functioning efforts to build on.

SBHF-5: Addressing the full continuum of students need requires support from partners outside the school. This continuum includes how to address basic needs and support for parents and caregiver mental health needs. When basic needs are not met, students are more likely to experience crisis. School-based providers report that managing crises is time consuming and resource intensive. Time spent in crisis also inhibits learning and positive mental health outcomes for children and youth. School mental health services are most successful when paired or coordinated with other efforts and community resources that address the child's and family's broader needs. A robust school mental health plan or program will include information and resources to help parents and caregivers who require their own mental health support. The Family Partner Program through the Harris Center helps parents and caregivers navigate the school system and provides emotional support from people who have had similar experiences that can be difficult for many to find elsewhere. Continuity of care outside of school hours is critical. Schools have limited hours and days of operation; however, student needs persist. Community-based organizations can enhance school-based efforts by providing

support and resources to students after school hours and during school breaks. Even if a school does not have a school-based or school-linked behavioral health program, simply providing positive activities outside of the school day can keep students out of trouble and support them in times of need.

Component 3: Harris County's Rehabilitation and Intensive Services Capacity

In an Ideal System of Care, the rehabilitation continuum provides care for children and youth suffering from conditions that are so severe that they impair functioning across multiple life domains and require evidence-based rehabilitation in addition to specialized treatment of the underlying mental health disorder. The continuum also includes intensive, evidence-based home and community-based practices, described further in Appendix B. With a few exceptions (most notably, the Multisystemic Therapy program offered by the Harris County Juvenile Probation Department (HCJPD), wraparound facilitation through the YES Waiver, and some treatment foster care), the recommended practices are largely absent in Harris County. While several providers have or are obtaining training in trauma-based care and have training in office-based, evidence-based practices, such as the cognitive behavioral therapies, the broader range of community-based and skill-building services for children, youth, and families (including intensive services when needed) that are necessary to address more complex conditions are not available to most in need. Rather, there is an over-reliance on crisis services, inpatient psychiatric hospitals, and the more restrictive and costly residential treatment programs. All the recommended evidence-based practices focus on providing intensive in-home family or caregiver services as well as interventions that help children and youth learn skills that enhance their well-being and allow them to achieve success with their families and caregivers, in schools, and in their communities and social lives. Overall, those in poverty face glaring gaps in access and those with insurance have essentially no options if they do not access care through the public system.

Intensive In-Home and Community- Based Evidence-Based Practices

- ***Functional Family Therapy (FFT)***
- ***Intensive In-Home Child and Adolescent Psychiatric Services (IICAPS)***
- ***Treatment Foster Care Oregon(TFCO)***
- ***Multidimensional Family Therapy (MDFT)***
- ***Multisystemic Therapy (MST)***
- ***Wraparound Facilitation***

Recognizing these needs, since 2013 the Texas Medicaid program and its contracted managed care organizations (MCOs) – STAR, STAR Kids, STAR Health – have begun to expand (albeit slowly) the number of providers credentialed to provide Medicaid Mental Health Rehabilitative Services (Medicaid Rehabilitative Services) benefits and Targeted Case Management (TCM). Medicaid Rehabilitative Services focus on skill-building, while Targeted Case Management (TCM) is a care coordination function. Today there are three providers able to provide such services: the Harris Center for Mental Health and IDD (the largest and longest-standing provider

of such care), DePelchin Children's Center, and Pathways Youth and Family Services (Pathways). Only two of those providers (the Harris Center and Pathways) were currently providing such care during the spring of 2017. Two additional providers could potentially add capacity: one is in the process of becoming either credentialed (Arrow Child and Family Ministries) and the other provides services through the juvenile justice system in Harris County and Medicaid Rehabilitative and TCM services in other regions of Texas, but not in Harris County (Youth Advocate Program or YAP). However, YAP is a Comprehensive YES Waiver Services Provider for Harris County (along with the Harris Center), and is responsible for providing YES Waiver services and developing the provider network for the waiver. In addition, Arrow provides foster care services and YAP provides juvenile justice services, as described in more detail in those sections later in the report.

The primary MCOs serving children and youth in Harris County are the Medicaid STAR plans (Amerigroup, Community Health Choice, Molina Healthcare of Texas, Texas Children's Health Plan, and United Healthcare Community Plan) that manage networks of multiple hospitals and outpatient providers for children and youth who are not in foster care and who do not have a disability. They also include services to children and youth in foster care through the STAR Health system, which is the Medicaid managed care system operated by Superior Health Plan. As with the adult plans, these MCO networks have generally only been building intermediary levels of care since they began managing the rehabilitative services that, prior to September 2014, had been only available through the Harris Center in its role as the LMHA. While MCOs report efforts to develop more intensive service capacity, much of it is outside of the Harris Center system; expansion has taken time. Also, the Medicaid STAR Kids plans for children and youth with disabilities are further broadening the range of available supports. While Harris County MCOs are developing additional treatment options, the Harris Center still provides much of the capacity for children and youth with intensive needs at risk of out-of-home placement, similar to other communities across Texas. But the intensity of the services does not match the need, particularly when considering the best practices identified for an Ideal System.

There are two levels of capacity gaps. The first is simply capacity to serve all 30,000 or so children and youth each year in need of such care. The second is access to sufficiently intensive services for the 4,000 or so who require such care. Today, Medicaid funding through TCM and Medicaid Rehabilitative services, the Youth Empowerment Services (YES) Waiver,[62] and other Medicaid benefits, can be combined to fund some components of evidence-based practices. There are also state, federal, and foundation grants that support intensive home and community-based services, but the proportion of the services available is limited and does not

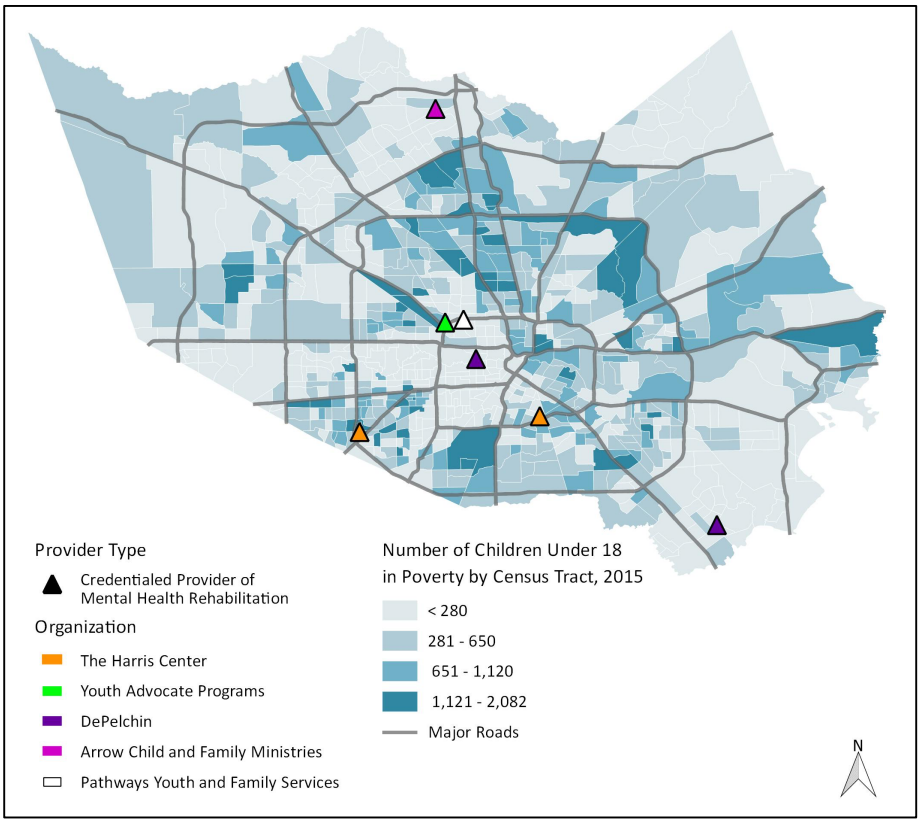
[62] The YES Waiver, developed by the Health and Human Services Commission (HHSC) and the Department of State Health Services (DSHS), provides comprehensive home and community-based mental health services to children and youth between 3 and 18 who have a serious emotional disturbance. For more information, see https://www.dshs.texas.gov/mhsa/yes/.

begin to match the needs. For example, the most intensive level of home and community-based care available through Medicaid provides under 20 hours of treatment on average per month for an indeterminate amount of time, whereas an evidence-based model such as Multisystemic Therapy (MST) would provide approximately 100 hours of care in the first month, tapering down and finishing the treatment episode in three to seven months. Given its time-limited duration, MST is not necessarily more expensive per episode, but it is much more intensive than current Medicaid funding models allow.

How Accessible Are Rehabilitation and Intensive Services?

The map below shows current and potential future credentialed providers of rehabilitation services: The Harris Center, DePelchin, and Pathways (current providers); and Arrow Child and Family Ministries and Youth Advocate Program (potential future rehabilitation providers).

Rehabilitation Services Providers[63]



[63] Poverty data obtained from The United States Census Bureau, American Community Survey 2015 Five-Year Estimates and 2010 Five-Year Estimates. The United States Census Bureau. (n.d.). *Table B17001: Poverty status in the past 12 months by sex by age*. Retrieved from https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk
Major Roads shapefile obtained from the Houston Data Portal: Shapefile of Harris County Highways. Retrieved from http://data.ohouston.org. Providers of mental health rehabilitation services obtained via personal communication with the providers.

How Many Children and Youth Receive Rehabilitation and Intensive Services?

Of the 65,000 children and youth with SED (35,000 in poverty) each year, we estimate that about 30,000 (20,000 living in poverty) will experience impaired functioning across multiple life domains and require evidence-based rehabilitation in addition to specialized treatment of the underlying mental health disorder. About 4,000 of these children and youth will require intensive, evidence-based interventions in their homes and communities.

We know from Texas Health and Human Services Commission (HHSC) data that about 42,000 children and youth received public mental health services at any level (see table below), but only the data for children and youth served through the Harris Center are disaggregated by severity of need. HHSC also provided aggregate data for the largest providers and Medicaid MCOs. These data are the basis of the estimates below.[64] Overall, there appears to be capacity to treat most children and youth with severe needs in poverty, but it is not clear if services are going to the right children and youth, nor is it clear if services are being delivered at the right level of care. Gaps for those at the highest risk of out-of-school or out-of-home placement are explored after the table.

Children and Youth Served	Number Served	Comment
Children and Youth in Poverty with Severe Needs (SED Under 200% FPL)	**35,000**	This includes both those in need of Specialized BH Services (Component 2) and Rehabilitation Services (Component 3)
Mental Health Systems		
Served by the Harris Center	3,935	Total served in ongoing levels of care. See below for breakouts by severity level.
Percent Medicaid	77%	
Harris Health – Outpatient	8,221	Only children and youth with severe needs (SED diagnoses, suicidal) in ongoing care (outpatient therapy and medication).
Percent Medicaid / Commercial	90%	
Medicaid FFS and HMO	29,578	This is an estimate of children and youth with SED served in 2013 (on medication); level of care received is not clear.
DSRIP: The Harris Center	1,350	Not included in total above.
DSRIP: Other Providers	1,260	

[64] HCCPS and HCJPD contract or directly provide other services that are likely not included in the table below. MMHPI will be releasing a report later in 2017 focused on those services, in partnership with the Council of State Governments Justice Center. Many of these are residential placements, but there is an array of crisis services, some wraparound facilitation, and MST.

Children and Youth Served	Number Served	Comment
Juvenile Justice System		
Juvenile Detention	1,164	These are provided by the Harris Center.
TCOOMI Contract	194	These are provided by the Harris Center.
Child Welfare System		
Children and Youth with SED in Foster Care	863	These services are included in the Medicaid totals above.

It is important to reiterate that numbers served do not tell the entire story. For example, Harris Health serves about twice as many children and youth with SED as does the Harris Center, but Harris Health generally provides either routine outpatient care or emergency crisis or hospital care. Medicaid MCOs and FQHCs also provide routine outpatient care to children and youth and, through the MCOs, higher levels of care such as inpatient care and medication management, but they generally do not provide more intensive home and community-based services outside of those served by the Harris Center.

To try to differentiate levels of need, HHSC has implemented utilization guidelines for Medicaid and indigent care known as the Texas Resiliency and Recovery (TRR) levels of care (LOCs). The LOCs are broken into graduated levels of intensity to meet the various levels of service needs of children, youth, and adults entering the public mental health system. There are four primary child LOCs for ongoing mental health services. The first two (LOCs 1 and 2) would be considered Specialty Behavioral Health Care (Component 2) in the Ideal System of Care, though it is likely that some of these children and youth could be served in a well-functioning primary care setting. The last two (LOCs 3 and 4) would be considered Rehabilitation Services (Component 3) in the Ideal System of Care:

- **Medication Management** (LOC1): This is the lowest level of service, typically involving less than an hour of care per month, generally for children and youth who are stable and in a maintenance phase needing only medication or low levels of psychosocial or case management supports. A child or youth with SED would need to be relatively stable to receive this LOC.
- **Targeted** (LOC2): This adds two to three hours of family/individual counseling or skills training to treatment or services. Targeted LOC is for children and youth primarily in need of treatment with low levels of functional impairment. As with Medication Management, a child with SED would need to be relatively stable functionally to receive this LOC.
- **Complex** (LOC3): This is a more intense level of care for children and youth with functional impairments in need of active treatment and psychosocial skills interventions aimed at preventing juvenile justice involvement, expulsion from school, displacement

from home, or worsening of symptoms or behaviors. Most children and youth with SED who are not stable would need this level of care.

- **Intensive Family Services** (LOC4): This is the highest level of service intensity for children, generally for children and youth with significant involvement with multiple child-serving systems. It involves intensive family-focused treatment (target of two or more hours per week on average), generally delivered in the home or community. The level of functional impairment must be high, resulting in (or at least likely to result in) juvenile justice involvement, expulsion from school, out-of-home placement, hospitalization, residential treatment, serious injury to self or others, or death.

Children, youth, and families also have access to the following two specialized levels of care:

- **Young Child Services** (YC): These are services for children between the ages of three to five years offering a focus on the relationship between the parent and child.
- **Youth Empowerment Services (YES) Waiver** (YES): In a subset of larger Texas counties, including Harris County, YES Waiver services are available. LMHAs coordinate the care and provide high-fidelity wraparound planning and service coordination, but the additional supports are provided by non-LMHA providers. YES Waiver home and community-based supports are only available for Medicaid recipients. In addition to regular Medicaid services, waiver participants are eligible for other services as needed, including respite care, adaptive aids and supports, community living supports, family supports, minor home modifications, non-medical transportation, paraprofessional services, professional services, supportive employment services, supportive family-based alternatives, and transitional services. These are part of the Rehabilitative Services array (Component 3) of the Ideal System of Care.

In addition to these ongoing treatment levels, the Harris Center as an LMHA can also provide the following crisis services (which are part of Component 4 of the Ideal System of Care and discussed at more length in the next section):

- **Crisis Response**: This is the initial response to a crisis, either through mobile crisis or services at a facility, and can involve up to six days of follow up.
- **Transitional**: This involves up to 90 days of additional transition services until the situation is resolved.

As part of each of these levels of care, the Harris Center can provide family partner services, a subset of peer support provided to and delivered by family members of children and youth with SED. Increasingly, collaboration and partnership between children's families, youth, and service providers have been recognized as the threads that link successful programs, policies, and practices. We obtained data for FY 2014 from the University of Texas on the number of certified

family partners (CFPs) and data from DSHS on CFP Service Units. The Harris Center employed nine (9) CFPs at that time and provided the service to 1,376 children and youth that year.

The following table summarizes the distribution of care provided by the Harris Center at different levels of care. Approximately 90% of children and youth served by the Harris Center are served at the lower levels of care (Medication Management, Targeted). As noted above, these two levels would be considered a Specialty Behavioral Health Care (Component 2) in the Ideal System of Care, and it is likely that some of these children and youth could be served in a well-functioning primary care setting (Component 1). That means that the primary provider of Rehabilitation Services (Component 3) in Harris County is serving approximately 600 of the 30,000 children and youth in need of such care and approximately 200 of the 4,000 in need of the most intensive services.

The Harris Center Levels of Care Analysis FY 2016

LMHA	Crisis Continuum (Component 4)		Ongoing TRR Treatment Levels Component 1 / 2		Component 3		Specialized Comp 3	n/a
Level of Care	**Crisis**	**Transition**	**Medication Management**	**Targeted Services**	**Complex Services**	**Intensive Family**	**YES Waiver**	**Young Child**
Harris	537	87	395	3,163	377	<6	220	217
% of LOCs	n/a	n/a	10%	80%	10%	<1%	n/a	n/a

The Harris Center has reported moving most children and youth in intensive LOC 4 to the YES Waiver to allow the provision of waiver services to augment the care of those cases. For this reason, very few children and youth were reported as receiving intensive family services (LOC 4) under the ongoing TRR levels in the table. This is problematic for analysis purposes, as it is not clear under the YES Waiver how many of these children and youth received intensive mental health services and how many received only the supplemental supports such as respite available under the waiver. To date in 2017, utilization rates of more intensive services under the YES Waiver appear to have increased. Of the 245 children and youth enrolled in the YES Waiver, 130 received comprehensive Medicaid services from the Harris Center. The remaining 115 children and youth received services through Pathways.

One area of both concern and opportunity is the delivery of fidelity-based Wraparound Service Coordination (based on the standards of the National Wraparound Initiative) as part of the YES Waiver array. The Harris Center is beginning to build this capacity, but current Medicaid requirements do not adequately differentiate which cases are truly in need of the support. Instead, every child and family with needs for intensive services is receiving the support currently. As noted in the discussion of the Ideal Service Array, the Texas Medicaid program requires all children and youth receiving intensive home and community-based services to

receive Wraparound Service Coordination. While the principles of wraparound should inform all intensive treatment, the evidence base suggests that a wraparound facilitator and formal wraparound plan is only needed when the needs are so complex that a given type of intensive evidence-based care (e.g., Coordinated Specialty Care, Functional Family Therapy, or Multisystemic Therapy) is not sufficient. Since few of these modalities are currently available in Texas or Harris County, this strategy makes sense for now, but it would need to be revisited as intensive, evidence-based capacity is expanded.

Challenges Implementing Evidence-Based, Intensive Home and Community-Based Services

While many children and youth with intensive needs have Medicaid coverage, the capacity for intensive home and community-based services is significantly lacking. The Texas Medicaid Program does not explicitly fund the best practices highlighted in the Ideal System of Care (and discussed further in Appendix B). While some current Medicaid services can be combined to provide more service intensity, restrictions in the current utilization guidelines restrict care.

Fortunately, under managed care, the Medicaid MCOs have more flexibility to negotiate contracts with providers to offer services (including evidence-based practices) as cost-effective alternatives to residential care and inpatient care. Unfortunately, startup funds for evidence-based practices have not been available and there are provider costs for training, certification, and ongoing supervision to ensure fidelity to the practice. Phasing in services also takes time, a process that results in providers not obtaining payments for the full capacity of the program while services are "ramping up."

Background Issues Impacting Rehabilitative and TCM Providers. Before 2013, only LMHAs (and their subcontractors, if applicable) could bill Medicaid for Mental Health Rehabilitative Services and TCM. In 2013, Senate Bill (SB) 58[65] integrated these services into the state's Medicaid managed care program – reimbursing them through capitated (or fixed, predetermined) rates – and enabled provider entities other than LMHAs to become credentialed and obtain reimbursement for providing these services. This option had been available in the NorthSTAR service area for over a decade, but SB 58 expanded managed care statewide.

This was an important first step in expanding the capacity to provide these services statewide. However, despite this initial act to expand the provider base and increase access to these services, in nearly four years, the only private credentialed providers of these services in Houston to join the Harris Center are Pathways Youth and Family Services and DePelchin. Two additional providers could soon become eligible: Arrow Child and Family Ministries is in the process of becoming credentialed and Youth Advocate Program (YAP) currently provides

[65] 83rd Legislature, Regular Session. See http://www.legis.state.tx.us/tlodocs/83R/billtext/html/SB00058F.HTM

services in Harris County under the YES Waiver and through the juvenile justice system, but it is credentialed and provides Medicaid Rehabilitative and TCM services in other regions of Texas.

Current Barriers to Increasing Capacity. In our interviews, we discovered that many non-LMHA providers found it difficult to become credentialed by the MCOs for Medicaid TCM and Rehabilitative Services. One stumbling block was confusion regarding the extent of provider requirements. For example, some providers perceived they would need to provide crisis services 24 hours a day, seven days a week to offer the care. However, the biggest barrier was the initial financial investment needed for staff training and credentialing, with the costs of this credentialing process reaching well into the hundreds of thousands of dollars per provider.

In addition, ramping up capacity also incurs costs, as providers must hire, train, and certify individual staff prior to earning any Medicaid income (because they must complete the training and individual staff credentialing process prior to offering services and obtaining Medicaid reimbursement). One organization we contacted estimated that 300 training hours were required for each staff member directly providing these services. Providers also incur additional costs for updating their billing system when they add a new service. Based on our experience and meetings with providers who have developed such capacity, we estimate the costs are about $5,000 per child capacity slot created.

Another factor in addition to these start-up costs is that the ongoing costs of delivering effective, evidence-based intensive home and community-based services generally exceed the Medicaid payments. The costs associated with higher-credentialed providers and the ongoing supervision and training required to maintain fidelity to the standards of evidence-based practice, plus the low baseline Medicaid reimbursements for intensive home and community-based services (based on more generic, non-evidence-based approaches), form significant barriers. Our interviews with providers outside of Harris County also found that some providers prefer to rely on foundation funds and other grants rather than billing Medicaid because of the more robust funding and the intimidating costs of becoming a credentialed provider.

Additionally (as noted above), all Mental Health Rehabilitative Services and TCM providers enrolled in Medicaid must utilize the Texas Health and Human Services Commission's (HHSC) Texas Resilience and Recovery Utilization Management Guidelines (RRUMG), which were originally designed for LMHAs and not for Medicaid MCOs. The rigidity of this system, which prescribes a specific number of units of services, is often not in line with the delivery of evidence-based practices.

New Opportunities to Increase Capacity. During the 85th Legislature, Regular Session, additional efforts were made to help increase the state's capacity to increase access to Medicaid Managed Care Mental Health Rehabilitative Services and Targeted Case Management

(TCM) for children and youth with severe mental health needs who are involved in foster care. Senate Bill (SB) 74, which streamlined the Medicaid managed care credentialing process, thus potentially increasing the state's capacity to engage more providers, overwhelmingly passed both legislative houses and was signed by Governor Abbott on June 9, 2017. Key provisions of the bill include clarifying that non-LMHA providers can contract with an MCO to provide Mental Health Rehabilitative Services and TCM to children, youth, and their families. The bill also clarifies that non-LMHA providers are not required to provide certain crisis services, such as crisis hotlines or mobile crisis teams. It also requires HHSC to update and clarify Medicaid managed care contracts and related manuals and guidelines.

SB 74 is also associated with a budget rider that makes $2 million available statewide to establish a grant program by November 1, 2017, to cover provider start-up costs in order to increase access to intensive Mental Health Rehabilitative Services and TCM for underserved children and youth in the child welfare system. This one-time grant program will provide funds to providers making investments to either become providers of TCM and Mental Health Rehabilitative Services or to expand their existing capacity to provide these services for children and youth in foster care. To receive grant funds, an entity must provide local matching funds in an amount defined by HHSC, based on the entity's geographical location. Funds may only be used to pay for costs directly related to developing, implementing, and training teams to provide intensive TCM and Mental Health Rehabilitative Services to children and youth with high needs in foster care. This legislation should assist other providers in Harris County with becoming credentialed to provide rehabilitative and TCM services and YES Waiver services.

Who Are the Rehabilitation and Intensive Services Providers?

Current Rehabilitation Provider: The Harris Center

As noted above, the Harris Center is the primary historical and current provider of intensive rehabilitation services. Detail on its entire rehabilitation services array was provided above, but only LOC 4 and YES Waiver services come even close to the needed level of intensity for this care, and the Harris Center has focused its efforts exclusively on the YES Waiver.

For YES Waiver services, which allow the most intensive services, introductory enrollment begins with the child's family or a youth contacting the state's inquiry line. Interested families are assessed for eligibility at the Harris Center, which is the only comprehensive provider in Harris County (comprehensive providers can provide or subcontract for YES Waiver services, including specialized therapies). Once it is determined that a youth qualifies for the YES Waiver (based on the RRUMG utilization guidelines), a Harris Center YES Waiver coordinator works with child's family (and youth, as applicable) to identify a child and family team to help develop a wraparound service plan and Individual Plan of Service, which must be approved by HHSC.

LOC YES services include medication management, rehabilitation skills training, counseling, and targeted case management (wraparound facilitation) according to the UM Guidelines. Youth may also qualify for additional services and supports within the YES Waiver (e.g., respite, art and music therapy, equine therapy, employment assistance, paraprofessional community living support, animal assisted therapy, recreational therapy, family support, and camps).

As of May 2017, the Harris Center had 22 wraparound coordinators and two vacant positions: 18 of these facilitators were fully trained, four were partway through the training process, and two were newly hired. Each wraparound coordinator maintains a caseload of between 10 and 13 program participants. Additional child and family team participants may include Community Living Supports (CLS) staff, therapists, doctors, Certified Family Partners, and other individuals able to provide needed services to the child or youth and family. Harris Center caseloads are overseen by two wraparound leads and two clinical team leaders.

Current dynamics in the functioning of the team include the following, as reported by the Harris Center:

- The Harris Center does not receive many referrals from juvenile justice agencies.
- Harris Center staff are working with hospitals to increase access for children and youth who need services on the rehabilitation continuum, including intensive home and community-based services.
- Harris Center staff are working with DFPS to increase awareness of YES Waiver services as a resources for children and youth in custody.
- Most of the children and youth served are age 10 or over.
- Many program participants struggle to access adequate natural supports, such as extended family members, neighbors who can offer transportation, friends who can help with homework, social clubs (e.g., the Boys and Girls Clubs), or sports teams and coaches.
- Another program challenge is educating all participants on the wraparound philosophy, the planning process, how it fits into a family's life, and the roles of the team members.
- Highly skilled and invested Community Living Skills workers increase the likelihood of success for the families, but there is significant turnover in these positions.
- The YES Waiver has served children and youth who previously received Mental Health Rehabilitative Services, but were perceived as not improving because of the limited number of service units available in lower levels of care.

One particularly promising rehabilitation service available through the Harris Center, in partnership with The University of Texas Health Science Center at Houston (UTHealth) Harris County Psychiatric Center (HCPC), is its operation of one of the initial state pilots of Coordinated Specialty Care for first episodes of psychosis, an evidence-based approach

described in more detail in Appendix B. The Harris Center's Coordinated Specialty Care Program addresses the needs of youth and young adults with initial onset psychotic disorders. The program is limited to people without insurance, and it can provide services and supports to 65 youth and young adults at any given time. Because of the insurance limitation, the program had previously been limited to adults statewide, and youth with Medicaid were not eligible. Going forward, qualified individuals must be between the ages of 15 and 30, have been diagnosed with a psychotic disorder within the last two years, and agree to receive intensive services (i.e., seven hours a week of services). When enrolled, they receive medication management, individual therapy, case management, peer counseling, and substance abuse counseling provided by a team of seven full-time staff (including three licensed therapists) and a part-time psychiatrist. The program reports that, while no youth have been served to date, of the 114 young adults who have been served to date, 11 are enrolled in college or high school and 40 have become employed.

Current Rehabilitation Provider: DePelchin Children's Center

DePelchin Children's Center (DePelchin) is a private child and family services agency with 125 years of experience providing child welfare services in the Houston area and beyond. DePelchin delivers foster care and adoption services as well as behavioral health services, including a residential treatment center. It provides services to prevent abuse and neglect, is a licensed foster care and adoption agency, and delivers mental health and other support services for children and youth with foster care involvement. In 2017, it was credentialed to begin offering Medicaid Mental Health Rehabilitative and TCM services.

DePelchin's current mental health service array is the result of a thorough strategic planning process completed in 2016, which resulted in closing their outpatient mental health child and family services clinics. These clinics were providing specialty mental health services to more than 2,200 children and youth in the community. DePelchin is now providing outpatient services through Prevention and Early Intervention dollars through the Department of Family and Protective Services (DFPS). These services include a parenting programming through a Prevention and Early Intervention (PEI) HOPES grant. Any outpatient counseling and community-based services are connected to preventing child abuse and neglect.

DePelchin focuses on serving children, youth, and their foster and adoptive families. The organization is committed to bringing more of its services to the family home and within the community. The agency also has a telemedicine program at its residential treatment facility (RTF) and at its Woodlands and Central offices.

DePelchin is actively expanding the services it provides in the home and community to families with complex needs. Through the STAR Health MCO (the MCO for children and youth in foster care), DePelchin has completed the process to become a certified provider of Targeted Case

Management (TCM) and Mental Health Rehabilitative Services through the Medicaid program. As discussed above, the process to become certified to provide TCM and Rehabilitative services requires significant investments, both financially and in staff training. DePelchin estimates that completing all required training models required about 300 hours per staff member trained.

In the greater Houston area, DePelchin serves about 500 children and youth per year through the FIRST (Family Integrated Relational Service Team) Program, which has 17 clinical case managers and a specialized team that contains two licensed practitioners of the healing arts, a crisis responder, and a wraparound coordinator. This team focuses on serving children and youth with complex mental health needs and estimates that about 20% of the children and youth it serves require comprehensive services, including intensive in-home family-based services and crisis support, and that about 5% of these children, youth, and their families will need wraparound facilitation. Staff who work with the families with the most complexity have or will obtain training in wraparound.

With the underlying view that all children and youth who enter the child welfare system require some level of mental health support, DePelchin has incorporated Trust Based Relational Intervention (TBRI) as a foundation for interacting with the children, youth, and families they serve. TBRI is designed specifically to meet the needs of children and youth who have complex needs through attachment-based and trauma-informed interventions.[66] Over half of the staff at DePelchin have undergone extensive TBRI training, and all staff who work with families have some training on trauma. The team also passes along insights on coping with trauma and TBRI concepts to the families it serves. Despite the challenges associated with ongoing training for new staff, DePelchin has found that incorporating TBRI into its work has many benefits, including a decrease in the use of restraints in its residential treatment center.

In addition to the services already described, DePelchin also provides post-adoptive services, serves thousands of families through its prevention and early intervention programming, and operates a 20-bed residential treatment center as well as a program for 18 to 22-year-olds who are transitioning out of the foster care system.

Current Rehabilitation Provider: Pathways Youth and Family Services

Pathways Youth and Family Services (Pathways) provides child placement agency services to children and youth in foster care and Medicaid Mental Health Rehabilitative and TCM services more broadly across Texas. It also operates the Mosaic program in Harris County.

[66] Karyn Purvis Institute of Child Development. (n.d.). *Trust-based relational intervention: What is it?* Retrieved from https://child.tcu.edu/about-us/tbri/#sthash.HU52K7Bx.dpbs

Pathways' Mosaic program, through a contract with the Star Health Medicaid MCO, is authorized to deliver six units/hours a month of rehabilitative skills training to children and youth enrolled in this program. While not an intensive service, this is an important low level rehabilitative support to work with families directly to teach skills on how to manage challenging behaviors. Currently, the program has a case load of 25 children and youth who have moderate to severe mental health conditions with an overall current capacity to serve 50 to 75 and expected expansion to serve up to 300, contingent on staff recruitment. The Mosaic program has seen a nearly 100% increase in demand for its services and is in the process of hiring up to 10 new skills trainers (the program currently has two skills trainers and is about to hire a third). Most of the program's population consists of children and youth referred through CPS.

There is also a small intensive services capacity of approximately 20 children and youth receiving LOC 4 services / YES Waiver wraparound services within the Mosaic program. This program currently has two wraparound facilitators and wants to add five additional Houston-based facilitators, which would allow it to expand to serve about 70 children and youth at any one time with intensive services and wraparound service coordination. This program was not operating in fidelity to the national wraparound model in the past, but it is in the process of changing various roles of the facilitators to achieve fidelity. One challenge has been maintaining children and youth in wraparound if an adoption occurs prior to completing services as there may be a change in health plan and no additional coverage for this service. The same issue occurs if a child is transferred out of the catchment area.

Pathways relies on non-traditional funding and donations for services and supports identified in the wraparound plan that are not covered by Medicaid. It does not have access to additional pooled or flexible funds for this purpose. Most referrals come through child protective services.

Potential Future Rehabilitation Provider: Arrow Child and Family Ministries

Arrow Child and Family Ministries (Arrow) provides services and supports to children and youth in the child welfare systems in Maryland and Texas and is located in seven regions scattered across Texas, including Houston. Arrow provides foster/adoption and child sex trafficking recovery services; it also partners with DePelchin through a PEI HOPES II grant to provide Family Connections services. In its Maryland operations, Arrow provides traditional foster/adoption services, as well as treatment foster care, psychiatric rehabilitation services, transitional living services, and special education services.

Arrow serves approximately 250 to 300 children and youth per year in the Houston area. Arrow's administrative staff indicate that most of these children and youth have been identified as having higher level needs (specialized or intensive) by the Texas Department of Family and Protective Services (DFPS). They report success in supporting children, youth, and foster

families in achieving stable and successful placements because they have implemented portions of their Maryland treatment foster care model: recruiting foster families who are willing to work with children or youth with complex needs, targeting foster family recruitment to the faith-based communities, and understanding how trauma affects children and youth. In addition, most Arrow staff are trained in and utilizing Trust-Based Relational Interventions (TBRI) to address trauma and provide foster/adoptive parents with the tools to support ongoing success.

Arrow monitors placement stability through its continuous quality improvement process and reports ongoing program improvement and success. An initial review indicated that children and youth in DFPS care for up to 12 months had upwards of 90% stability when placed with Arrow. This stability rate dropped to 60% in the group of children and youth who were in care for two or more years. Through attention to this metric, Arrow has increased stability with these children and youth to 94%. This rate compares very favorably to the reported state average of 34%. Arrow's success in using a treatment foster care model is strongly in line with the Treatment Foster Care Oregon services described in Appendix B.

Potential Future Rehabilitation Provider: Youth Advocate Program (YAP)

The Youth Advocate Program (YAP) is a nationally recognized non-profit organization that serves youth and their families in the behavioral health, child welfare, juvenile justice, and education systems. They offer programs in 17 states, including Texas. YAP's work is guided by a set of service delivery principles that include hiring staff who reside in the communities they serve, deploying staff able to work non-traditional and flexible work hours, and providing 24 hours a day/seven days a week accessibility. The organization developed and employs the "YAPWrap model," an evidence-informed model blending the evidence-based models of High Fidelity Wraparound (Vroom Vandenberg's approach), mentoring, Positive Youth Development, and Positive Youth Justice. YAP also employs a variety of other evidence-based interventions, including Aggression Replacement Therapy, cognitive behavioral therapy, Nurturing Parent, Preparing Adolescents for Young Adulthood, Seeking Safety, and Skills Streaming. YAP is certified by the Council On Accreditation (COA).

YAP services and supports available in Texas vary by location. Behavioral health services are provided in Austin, Dallas County, Tarrant County, Harris County, the Gulf Coast, and Texarkana. YAP is a Comprehensive YES Waiver Services Provider in Harris County, Tarrant County, and Travis County, and a Specialty Network Provider (SNP) offering rehabilitation services and Targeted Case Management (TCM) in the Dallas region through the North Texas Behavioral Health Authority (NTBHA). In addition, YAP has juvenile justice alternative contracts with the Texas Juvenile Justice Department (TJJD) as well as the Dallas County and Harris County Juvenile Probation Departments (see the juvenile justice section below for more on the services

provided under the HCJPD contract). YAP is credentialed with STAR, STAR Kids, STAR Health, Molina, and NTBHA.

YAP is the Comprehensive YES Waiver Services Provider for Harris County and is responsible for providing YES Waiver services and developing the provider network for the waiver, though it does not provide Mental Health Rehabilitative Services or TCM in this region. YAP is currently providing rehabilitation services in the Dallas region – specialty mental health (Level of Care [LOC] 2) and low intensity skills training (LOC 3 services), including therapy, rehabilitative skills training, and medication monitoring – to children, youth, and their families through NTBHA and STAR Health. YAP in the process of hiring and training wraparound facilitators to deliver more intensive rehabilitation, including TCM/wraparound. Once these services and supports are fully in place, YAP will consider rolling them out in Harris County and their other Texas locations.

Rehabilitation and Intensive Services Findings

On the positive side, thousands of children and youth receive rehabilitation services every year; however, that care is only available in the public mental health system and most of those served receive far less intensive or evidence-based care than what they and their families need. Just as critically, there are essentially no evidence-based, intensive home and community-based services in the current mental health system, other than a small program for first episode psychosis that primarily serves young adults and a larger set of programs centered on wraparound facilitation, which is not actually a treatment service but instead a coordination intervention, and fewer than 250 children and youth of the approximately 4,000 in need of intensive services each year receive it. The sole example of an evidence-based, intensive home and community-based service identified in the Ideal System of Care and discussed more fully in Appendix B is only available in the juvenile justice system (Multisystemic Therapy, described below in the juvenile justice section of the report).

This finding is consistent with our prior work in Harris County and in other areas of Texas, and it reflects a substantial, statewide gap in the availability of intensive, home and community-based services for children and youth with complex needs who are involved in the foster care and the juvenile justice system, as well as those at risk more broadly for out-of-home or out-of-school placement. Based on the Stephen Group's 2015 report (*Meeting the Needs of High Needs Children in the Texas Child Welfare System*), intensive community services for children in foster care are dramatically lacking.[67] Those findings tracked directly with the findings of our in-depth child and family system assessment in North Texas, as well as with less in-depth findings from

[67] The Stephen Group. (2015). *Meeting the needs of high needs children in the Texas child welfare system*. Manchester, NH: The Stephen Group. Retrieved from https://www.dfps.state.tx.us/About_DFPS/Reports_and_Presentations/CPS/documents/2015/2015-12-03_Stephen_Group_High_Needs_Assessment.pdf

other MMHPI local assessments carried out across Texas, calling attention to the fact that this is part of a broader, systemic gap: that Texas communities, including Harris County, have little to offer children, youth, and families who need mental health services that are more intensive than routine outpatient visits but that do not require the restrictiveness of residential or inpatient care.

Rehabilitation and Intensive Services Finding (RISF)-1: There are no evidence-based, intensive home and community-based services available through the two currently operating rehabilitation providers (Harris Center and Pathways) other than a small first episode psychosis (FEP) program (focused on adults, but not allowed to serve youth) and wraparound facilitation, which is a best-practice service coordination function, not a treatment service. While the Harris Center operates a small Coordinated Specialty Care program for first episode psychosis (FEP), and up until now the program has only served adults, this program should provide a base for beginning to serve the 200 youth under age 18 who first experience a psychosis each year in Harris County. And while the wraparound-focused programs use the intervention to knit together an array of less intensive rehabilitation supports and treatment, none of the approximately 4,000 children and youth in need of intensive services each year receive care in the child welfare system that is sufficiently intense or evidence-based. That is not to say that children and youth receiving care in those systems today are not receiving effective or high-quality services; many at lower levels of need are, and these systems work diligently every day to help those with the highest needs recover functioning. Nevertheless, our overall finding is that even the best services are not funded by the public mental health system and are not available at all in the private system at the best practice level of intensity or evidence that should be the standard of care based on the current state of industry research and practice nationally.

RISF-2: There are limited rehabilitation skill-building and TCM services available through three providers, and two additional providers are in the process of becoming credentialed to offer TCM and rehabilitative services under Medicaid. This is promising and will position Harris County to have more providers of such care than any other region of the state, and offers a base of committed, high quality providers to build on.

RISF-3: Services on the rehabilitation continuum, especially the evidence-based, intensive home and community-based services, require more training and supervision on an initial and ongoing basis to achieve the best outcomes for children, youth, and their families. The start-up costs, and funds to phase-in these services are not covered through the current Medicaid programs. While the rider associated with Senate Bill (SB) 74 may provide start-up funds to expand offerings for children and youth in the foster care system, Medicaid funding for ongoing care is not sufficient to fund evidence-based, intensive treatment (other than wraparound

service coordination, which is an intensive and effective service coordination intervention, but not an intensive treatment).

RISF-4: There are significant opportunities provided through SB 74 and its associated budget rider, making $2 million in grants available to assist providers with the cost of training and credentialing for provision of Mental Health Rehabilitative Services and TCM to underserved children and youth in the child welfare system. Organizations bidding on these grants will need to access local matching funds, which will also be needed to supplement Medicaid funding if evidence-based, intensive services are to be made available. Such care (specifically, Multisystemic Therapy) is currently only available in the juvenile justice system. Because of its expanding provider base, Harris County does offer the opportunity to braid local funds with core state funding to demonstrate the potential benefit of these services. If successful and well documented, as demonstrated by these services in other parts of the nation, this could serve as a basis to inform state-level policy changes that could make these services more widely available.

RISF-5: The Texas Health and Human Services Commission's (HHSC) Texas Resilience and Recovery Utilization Management Guidelines (RRUMG), originally designed for LMHAs operating outside of a managed care system, are too rigid for the delivery of many intensive, evidence-based, home and community-based practices for children and youth. Most of these practices have their own internal guidelines and time frames for achieving the best outcomes and should not be constrained by rigid utilization management requirement such as the RRUMG. Furthermore, the RRUMG was developed for LMHAs before Medicaid managed care was established and needs to be updated to support optimal care in a Medicaid managed care environment that has a utilization management function.

RISF-6: Rehabilitation services are not currently available to children and youth outside of the public system, and evidence-based care is widely lacking in both the private and public sectors. This is a statewide and, in many ways, a national problem, as these services have only been developed in the public sector across Texas in general and the country as a whole, typically without attention to the requirements of evidence-based models with demonstrated efficacy. As their quality and evidence base improves, it will be important to widen access beyond children and youth in poverty, as thousands of families with incomes too high to quality for public benefits also experience mental health conditions so debilitating – either a severe psychiatric condition such as a psychosis or a less severe condition that goes untreated for years – that they impair functioning across multiple life domains and require evidence-based rehabilitation in addition to specialized treatment of the underlying mental health disorder. The 85th Legislature passed House Bill (HB) 10, and Governor Abbot signed it into law in June 2017, which provides additional resources at the state level to document barriers to effective care related to a lack of compliance with Texas parity laws. This may serve as a means of bring

attention to the relative lack of access to evidence-based care options – that are often more available for other health conditions – in order to address this gap in care for children, youth, and families in both the public and private sectors suffering from severe mental health needs.

Component 4: Harris County's Crisis Care Continuum

The mental health crisis care continuum in the Ideal System of Care described in the initial section of this report includes three distinct levels: 1) a range of **crisis intervention options**, including mobile crisis teams capable of immediate and ongoing crisis intervention and supported by a range of crisis respite and short-term out-of-home supports, most of which do not exist in any community in Texas or the nation, including Harris County; 2) **acute psychiatric inpatient facilities** for needs that are too dangerous or complex to address in less intensive treatment settings; and 3) **residential treatment facilities** for children and youth with subacute needs that cannot be safely treated in any other setting. This section of the report addresses the capacity and utilization of each of these levels of crisis care in Harris County and compares them to the Ideal System of Care.

Ideal Crisis Intervention Options

- ***Mobile crisis teams***
- ***Screening, assessment, triage, ongoing consultation, and time-limited follow-up***
- ***Crisis telehealth and phone supports***
- ***Coordination with emergency medical services***
- ***An array of crisis placements:***
  - ***In-home respite***
  - ***Crisis foster care***
  - ***Crisis respite***
  - ***Crisis stabilization***
- ***Linkages to a full continuum of empirically supported practices***
- ***Linkages to transportation***

How Accessible Are Crisis Intervention Options?

There are several agencies that provide some of the ideal crisis intervention options. Mobile crisis teams are available through the Harris Center, serving the county at large; Memorial Hermann Health System (and other private health systems), focused on diverting patients from the emergency department and general hospital beds to more appropriate resources; Turning Point, which provides crisis supports for children and youth living in foster care; and the TRIAD Prevention Program for children and youth with or at risk of justice system involvement, jointly run by Harris County Juvenile Probation Department, Harris County Protective Services for Children and Adults, and the Harris Center. There is capacity for screening, assessment, and triage through multiple providers. Crisis telehealth is also offered by at least one provider. In addition, an emergency shelter is available for children and youth, including those in foster care. A variety of providers offer crisis consultation.

Yet, these discrete services each target a specific subpopulation of children and youth, without an overarching system framework, and significant gaps remain in general. Crisis intervention options within an Ideal System of Care emphasize rapid response, safety, crisis triage, active engagement of the individual and family in crisis, and reliance on natural supports. Crisis

systems must have effective communication across multiple resources located in different parts of the county as well as access to transportation and the range of services to stabilize crises. All these components need protocols to link communication across individuals and systems, regardless of the specific child/youth's funding source or agency affiliation.

Who Are the Crisis Intervention Providers?

The Harris Center Mobile Crisis Outreach Teams (MCOT)

The Harris Center Mobile Crisis Outreach Teams (MCOT) has 54 dedicated staff members, including a medical director, a program director, clinical team leads, a psychiatrist, licensed master-level clinicians, bachelor-level case managers, registered nurses, and paraprofessional staff. MCOT operates as a multi-disciplinary team that responds to crises in homes and in the community. Individual clinical team members carry an active case load with an average of eight to nine people – both adults and youth – at any time, maintaining the goal of promoting stability while arranging ongoing treatment services, if needed. The teams employ many best practices. MCOT services may be provided for up to 90 days to offer follow-up and link individuals to other services. The average length of services is between 60 and 90 days for most children and youth, but this varies. For example, staff from the Harris Center shared that it is difficult to judge how many times the MCOT provides services to a child or youth within a one- or two-year time frame because of the overlap with the needs of the child/youth's siblings and other family members. In some cases, the MCOT visits a home for a call on a particular parent or child's behalf, but will leave with four family members on the caseload. Another factor in determining the length of stay is the wait time for accessing the services of a psychiatrist; this wait can last up to two months for children and youth who are not already enrolled in the Harris Center's services.

While comprehensive data on the reasons for the calls to the MCOT program were not provided, staff reported that depression, in-person and cyber bullying, school attendance problems, adjustment issues, and substance abuse in the home are key problem areas. Among children and youth, referrals for MCOT services come from a mixed set of sources, including parents, caregivers, and other family members; staff from other departments at the Harris Center; child protective services; schools; and self-referrals.

The Harris Center MCOT averages about 330 referrals per month related to children, youth, and families. About 200 become part of the follow-up case load for up to 90 days.

Referrals to MCOT for children and youth vary with the academic school year. Referrals tend to be lowest in July and December, during school vacations, and higher mid-semester in the fall and spring. Between September 1, 2016, and the end of January 2017, 11% of individuals served by MCOT were under the age of 18. A significant percentage of the calls (30%) during

that time were for youth and young adults under age 21, with an increase in utilization for transition-age youth between the ages of 18 and 21. Family partners at the Harris Center report that young people between the ages of 18 and 21 often rely on the MCOT program because they have lost access to pediatric systems where they were previously served.

Memorial Hermann Hospital System Resources Related to Crisis Management

The Memorial Hermann system operates 14 acute care hospitals throughout Greater Houston, plus eight rehabilitation and specialty centers. While Memorial Hermann does not offer inpatient or outpatient mental health services, one of its specialty centers is a drug and alcohol rehabilitation facility. Services at this center include detoxification, residential treatment, day treatment, and intensive outpatient programs. The program serves adults, children, and youth struggling with substance use and addiction.

The Psychiatric Response Team provides about 80 consultations per month for children and youth. It reports that its biggest challenge is disposition – making referrals for ongoing treatment.

Memorial Hermann – Texas Medical Center (TMC) is the primary teaching hospital for the McGovern Medical School at UTHealth. As the health system's largest campus, Memorial Hermann – TMC's partnership with the University of Texas (UT) allows psychiatry residents to be involved directly in addressing the mental health needs of all of its adult, child, and youth populations. For the remaining 13 hospitals in the health system, mental health services are provided by a mobile clinical service called the Psychiatric Response Team. This team is integrated into the health system and provides services mostly through the emergency departments and medical units, including pediatric and maternity units.

The Psychiatric Response Team includes 26 masters-prepared and licensed clinical staff and one psychiatrist, and it performs about 780 consultations per month within the Memorial Hermann Hospital System. Between 10% and 15% of these consultations are for children and youth. This program initially started as a consultation model for the health system's emergency departments to assist with mental health emergencies. In addition to its 26 front-line clinicians and one psychiatrist, they also have a trainer/educator who provides training and education to staff healthcare professionals and doctors in the effective and safe care of mental health issues. The program operates 24 hours a day, seven days a week in the system's emergency departments. The team sees patients between 7:00 am and 9:00 pm, seven days a week on all of its hospitals' medical units. The Psychiatric Response Team and the Behavioral Health Services Division also operate three walk-in mental health crisis clinics, which help divert pediatric and adult patients struggling with a mental health crisis away from congested emergency departments and quickly provide access to a specialist. The Psychiatric Response Team's operation is a cost borne by the Memorial Hermann Health System, and each campus

ultimately contributes to the cost based on their individual campus' service utilization. The Mental Health Crisis Clinics are currently funded by Medicaid 1115 Waiver funds.

Key informants indicated that the Psychiatric Response Team finds it challenging to address pediatric and maternity needs at night, citing that the limited availability of other agencies after hours is a key barrier to determining a disposition. The primary presenting issues for children and youth are suicidal ideation, interpersonal difficulties, behavioral challenges, self-injury, overdose, mood instability, drug abuse (often associated with mood disorders), disruptive behaviors, and family difficulties. Key informants also reported that the lack of available mental health providers and services in the community presents a significant challenge for referring individuals to ongoing care, especially for individuals with Medicaid.

Turning Point

Turning Point is a crisis intervention, acute stabilization, and psychiatric diversion program offered in Harris County by Superior Health Plan (Superior), the statewide MCO for the STAR Health Medicaid managed care program that serves children and youth in foster care. As such, the Turning Point program serves only children and youth in foster care placements and their families. The primary goal of the program is to prevent placement disruptions. Pathways Youth and Family Services contracts with Superior to offer this program in Harris County.

Turning Point provides 24 hours a day/seven days a week (24/7) access to a crisis information line and linkages to mental health assessment services, in-person crisis support, crisis residential beds, and a variety of mental health services. If it is determined that a foster child and family would benefit from the services, Turning Point staff spend between two and eight hours in the foster home for up to a week, if needed. This fully integrated model helps ensure that children and youth with the most complex needs will have access to follow-up services that can reduce the likelihood of a repeat crisis. Turning Point can resolve challenges over the phone for about half of its calls.

Turning Point is a resource for a broad range of foster families because its services are designed to help prevent a short-term challenge from escalating as well as to help families with complex challenges connect to more robust services. Turning Point reported that families contacted it for assistance on 66 occasions in the first nine months of program operation in 2016. Although the program is still small, its services led to 40 inpatient diversions during those first nine months. Also, by providing families with alternative services such as in-home assistance and medication management, Turning Point's two residential crisis beds have not been utilized. Since Turning Point launched in April 2016 and many families are still learning about the service, it is likely that utilization of this resource will increase.

TRIAD Prevention Program

This program is jointly funded and staffed by the Harris County Juvenile Probation Department (HCJPD), Harris County Protective Services for Children and Adults (HCPS), and The Harris Center for Mental Health and IDD (Harris Center). The program provides 24/7 access to crisis intervention services for children and youth who have been detained by the police for status offenses such as runaway, truancy, or Class C misdemeanors, and for children and youth in need of crisis intervention. Program services include 24/7 screening, referral, and, when appropriate, emergency shelter placement.

TRIAD also operates Intake Diversion, which provides services and resources to prevent deeper involvement with the juvenile justice system. Children and youth can remain at the Center for up to 24 hours and receive crisis intervention services, resource referrals and service planning, administration of the Children and Adolescent Needs and Strengths (CANS) assessment, and, if involved with child protective services, screening and placement in the onsite Kinder Emergency Shelter (which has 24 beds). The shelter will not admit individuals who are intoxicated or require emergency psychiatric services. Upon release from Intake Diversion, children and youth are connected with resources, including therapy services provided through the Harris Center and access to parenting classes and additional supports through HCPS. Program staff from Intake Diversion cite family conflict, refusal to accept parental responsibility, and running away as the top reasons children, youth, and families seek their services. Between March 2016 and February 2017, the Intake Diversion served 897 children and youth. During the same period, 235 of those individuals were released to the Department of Family and Protective Services, and only 11 individuals were assessed to be at risk for psychiatric concerns and then referred to appropriate services.

The Harris Center Crisis Line

The Harris Center Crisis Line is a toll-free telephone service that offers crisis counseling, support, and intervention if needed. Staffed by qualified and licensed mental health professionals, the Crisis Line provides mental health referral services 24 hours a day, every day of the year. Approximately 10% of calls are related to children and youth. Based on a risk assessment protocol conducted over the phone, callers are directed to mental health services through the MCOT, other Harris Center programs, or other providers.

Harris Center Psychiatric Emergency Services (PES)

The Harris Center PES unit provides 24/7 assessment services, medication, stabilization, and connections to services for children, youth, and adults experiencing a psychiatric crisis who are in need of care. The PES unit operates at a single location in central Houston and serves children and youth up to age 18 on a voluntary and involuntary basis. The facility is staffed with psychiatrists, nurses, licensed therapists, qualified mental health professionals, and peer

navigators. The goal of the program is to resolve crises within 24 hours. If a crisis cannot be resolved and the child or youth must be hospitalized or is unable to return home, the program staff seek out residential or inpatient options, which, because of limited community resources, can take up to two or three days to locate. In the event of such delays, the child or youth remains at the unit and is continuously re-assessed by staff, who stay in constant communication with the family.

The demand for PES services ebbs and flows with the academic school year. Demand is lowest in the summer months, which can create staffing challenges. Most children and youth served are age 11 and older, but even very young children are served. Children and youth with intellectual or developmental disabilities (IDD) frequently have needs that are hardest to address, and these individuals generally experience longer stays. The Harris Center IDD Division has been working with the PES to provide a respite program for children and youth with IDD or autism spectrum disorder who are in crisis and would benefit from 24-hour crisis stabilization services.

Demand for PES services often exceeds capacity. The Harris Center PES was recently expanded to meet this demand through the designation of the Children and Adolescent Psychiatric Emergency Service (CAPES) area within the PES. Children and youth who come to CAPES are assessed by a psychiatrist, nurse, and licensed therapist to determine the level of care needed. There is also a strong emphasis on family involvement in the treatment planning process. CAPES has the physical space to serve up to six children and youth, but has the staffing to serve no more than four at any one time.

Because capacity is so limited, when families seek services through PES/CAPES, the Harris Center Crisis Line and PES staff try to identify alternatives, especially for families with private insurance who might have additional options. When the PES is at capacity, the program enters diversion mode, which stops all referrals. In these instances, program staff notify local law enforcement not to bring in additional patients; walk-ins are directed to call the Harris Center Crisis Line to obtain emergency care elsewhere. During times of diversion, if there are no other beds, children and youth are often diverted to the Harris Health Ben Taub Hospital emergency room, which has no pediatric bed capacity, no space to hold children and youth, and no capacity to conduct an appropriate psychiatric assessment. Texas Children's Hospital is another alternative for children and youth when the PES/CAPES is at capacity; however, it also does not operate an inpatient psychiatric unit for children and youth.

Ben Taub Hospital Emergency Care

Ben Taub Hospital (Ben Taub) operates one of the anchor, locked adult psychiatric facilities in the region, but the hospital does not have any pediatric medical or psychiatric beds. Psychiatric services for children and adolescents are only provided by consult. However, when a child or

youth presents at the emergency room (ER) for medical or behavioral health crisis, the ER is required to treat them. Key informants report that, on average, 42 children and youth come into the ER each month. Two issues were identified as contributing to the large number of children and youth seen by Ben Taub Hospital: 1) community perception that Ben Taub is the safety net provider for children and youth in Harris County and 2) their location next to the Harris Center's Psychiatric Emergency Services. When the Harris Center is on diversion for children and youth, which is frequent, families often seek services from Ben Taub Hospital.

Children and youth who require inpatient psychiatric services are transferred to the UTHealth Harris County Psychiatric Center or a private hospital. If a bed is not available, the child or youth remains in the ER. Key informants report that there are occasions when they have three to four children and youth in the ER overnight. They describe housing children and youth on stretchers with curtains pulled between them while they wait for a bed. Children and youth who lack insurance coverage and those who struggle with a co-occurring mental health and developmental disabilities are more difficult to place, which results in longer stays. Key informants indicated that they have had children and youth wait in the ER for as long as four to five days.

Short-Term Residential Crisis Supports

In an Ideal System of Care, short-term respite is part of the crisis continuum for children, youth, and their families or caregivers who have had an ongoing crisis or experience a significant decline in functioning. In some situations, children, youth, and their families or caregivers can benefit from a brief period of separation or respite. Crisis respite programs are designed to meet these needs by providing an immediate but short-term diversion for children, youth, and their families or caregivers.

In a fully supported continuum of care, short-term crisis diversion programs offer a less intensive and often more appropriate alternative to psychiatric hospitalization; however, we found few short-term crisis options available to Harris County families, and these options were limited to families with CPS involvement or to young adults 18 years or older. We did not identify any Harris County providers that offer short-term crisis foster care or crisis stabilization with capacity for 1:1 mental health crisis intervention (30–90 days). We were also unable to identify providers of crisis respite, crisis group home care, or runaway crisis shelter services for children and youth apart from services provided by HCPS.

Turning Point Crisis Stabilization Beds. The Turning Point program offered through Pathways Youth and Family Services provides access to two crisis stabilization beds for families and caregivers with the most acute needs. To qualify for use of the crisis beds, a family or caregiver must agree to take their child or youth back home within 14 days. The child or youth must also meet the appropriate level of care and be at least 10 years old. Turning Point has not utilized its

crisis stabilization beds in the 13 months of its operation since other services it provides have prevented a need for overnight intervention.

Kinder Emergency Shelter. The Kinder Emergency Shelter, operated by Harris County Protective Services Children's Services Division, provides short-term residential services for youth and young adults between the ages of 12 and 17 who are threatened by abuse, neglect, or severe family conflict. The facility has 24 beds, half reserved for females and half for males. The goal of the program is to safely reunify families or find a safe and stable alternative for long-term placement. The facility houses and cares for youth voluntarily seeking help for up to 30 days and youth in DFPS conservatorship for up to 90 days, with an average length of stay of 30 to 40 days. The facility will also house young people in CPS custody following a placement disruption.

Program staff report that many of the youth served through the program have experienced multiple placement disruptions, and many have run away. About 10% were most recently served in a psychiatric inpatient program, although many more of have previous inpatient experience. The Kinder Emergency Shelter includes 24-hour supervision from three shifts of staff. Additional resources include an onsite school, therapy and case management, and medication assistance. Harris County Protective Services Children's Services Division reported that 1,468 young people were served at the shelter in 2016, a count that includes duplicate stays as well as short and longer-term CPS placements and voluntary placements. Program staff indicated that their capacity is generally sufficient to house those with need.

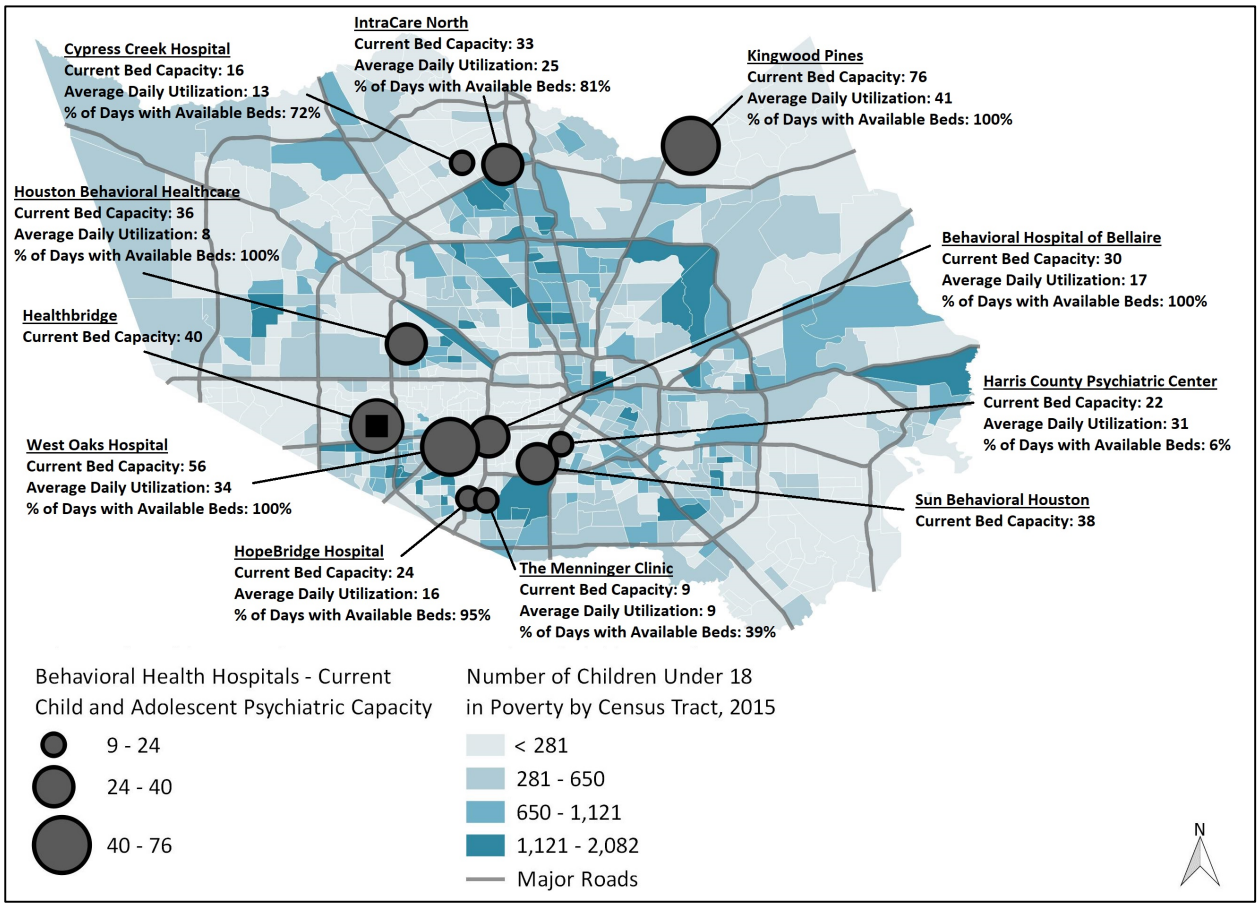
Covenant House. Although the focus of this system assessment is children and youth up to age 18, Covenant House reported that it provides services to young adults between the ages of 18 and 20. If these young adults are parents, Covenant House provides service for their children. It also operates a 24-hour crisis shelter 365 days a year and provides a foundation for all services offered by Covenant House Texas. Young adults admitted to the crisis shelter stay between 20 and 90 days and work toward identifying a plan that will meet their basic needs. Young adults served through the crisis shelter receive assessment, case management, onsite mental and physical health services, and comprehensive discharge planning.

How Accessible Are Psychiatric Inpatient Care Options?

Inpatient psychiatric hospitalizations can be helpful for acute stabilization of children and youth with complex needs, such as safety concerns or adjustments of medications that require close monitoring. These hospitalizations should be available when needed, but generally should be brief and supported by the broader crisis and ongoing evidence-based services array. Admission is generally based on safety and whether the child or youth presents harm to self or others as a result of psychiatric illness. We surveyed hospitals during the summer of 2016 and determined that there were 380 inpatient psychiatric beds available for children and youth. Two hospitals

did not report their bed capacity at the time of this report. The following map shows the locations of hospitals with units that serve children and youth.

Inpatient Psychiatric Hospital Beds[68]



The lack of definitive standards regarding the needed number of inpatient psychiatric beds for children and youth, and the decline of bed availability in Harris County, Texas (and the nation as a whole), have prompted recent in-depth studies of the reduced levels of access to inpatient beds in Texas. In January 2015, two important reports that attempted to define the need for inpatient beds in the state of Texas focused on overall need (not specific needs for children and youth).[69] These reports can be used to produce estimates for Harris County by proportionally

[68] Hospital addresses obtained from individual hospital websites and from the American Hospital Association 2015 Annual Survey of Hospitals, http://data.ohouston.org.

[69] **Lower Estimate Sources:** CannonDesign. (2014, November). *Analysis for the ten-year plan for the provision of services to persons served by state psychiatric hospitals.* Retrieved from: https://www.dshs.texas.gov/mhsa/reports/SPH-Report-2014.pdf
The Rider 83 State Hospital Long Term Plan was informed by the November 2014 consulting report by CannonDesign. CannonDesign et al. recommended development of 570 beds in the near term (and an additional

apportioning the statewide recommended number of beds to the number of adults with serious mental illness and the number of children and youth with SED. Using Harris County proportions of Texas totals results in a recommended count of between 874 and 1,020 combined publicly and privately funded beds. Following this method, 30% of Harris county beds would be for children and youth and 70% for adults.

The two DSHS reports suggest that Harris County needs between 260 and 310 publicly and privately funded beds for children and youth. Current public and private inpatient capacity is summarized in the following table, which describes capacity of 380 public and private inpatient beds for children and youth in the community. For state-operated facilities, there are 22 public inpatient beds for children and youth at The University of Texas Health Science Center at Houston Health (UTHealth) Harris County Psychiatric Center (HCPC). Rusk State Hospital, which serves Harris County, does not have any children's beds.

607 beds to keep pace with population growth through 2024) for an overall total of 5,424 publicly and privately funded beds in 2014. Based on the proportion of Texas adults with serious mental illness and children and youth with SED living in Harris County, this recommendation suggests a need for 874 psychiatric beds for adults, children, and youth. We report the number pro-rated for children and youth here.
Higher Estimate Source: DSHS. (2015, January). *Allocation of outpatient mental health services and beds in state hospitals.* Retrieved from: http://www.dshs.texas.gov/legislative/2015/HB3793-LegislativeReport-011315.pdf
The HB 3793 Report originated from the 83rd Legislature (HB 3793), which required a plan to identify needs for inpatient and outpatient services for both forensic and non-forensic groups. The legislation identified a diverse stakeholder group to advise DSHS in determining need and developing a plan to address it. The Task Force recommended a higher level of need for additional state funded beds (1,500 versus the 607 recommended by CannonDesign). Using this estimate yields an overall total need of 1,020 publicly and privately funded beds in 2014 across all age groups in Harris County. We report the number pro-rated for children and youth here.

Psychiatric Bed Capacity and Utilization in Harris County Hospitals[70]

Hospital	Child and Youth Psychiatric Bed Capacity 2017	Total Child and Youth Psychiatric Bed Utilization 2015	Average Daily Child and Youth Bed Utilization 2015
Kingwood Pines Hospital	76	14,823	40.6
West Oaks Hospital	56	12,509	34.3
Healthbridge Children's Hospital, Houston Ltd.	40	Not Available	Not Available
Sun Behavioral Houston	38	Not Available	Not Available
Houston Behavioral Healthcare	36	3,026	8.3
IntraCare North Hospital	33	9,213	25.2
Behavioral Hospital of Bellaire	30	6,128	16.8
HopeBridge Hospital	24	5,906	16.2
Harris County Psychiatric Center[71]	22	11,143	30.5
Cypress Creek Hospital	16	4,723	12.9
The Menninger Clinic	9	3,340	9.2

While nearly all stakeholders who discussed the issue reported that Harris County lacks sufficient inpatient capacity to serve the demand of its population base, analysis of the 2015 utilization of facilities for which data are available suggests a more complex situation. Among the nine facilities for which data were available, only two did not have available beds the majority of days in 2015. However, this does not mean that beds were available. Multiple stakeholders emphasized the lack of access inpatient beds for children and youth in poverty and those with complex needs (e.g., comorbid substance use disorders, conduct disorder). This suggests that the number of beds is not the issue, but rather that existing psychiatric beds serve limited populations.

Beyond these findings, the child welfare and juvenile justice systems reported substantial challenges in finding ongoing intensive services, which often results in longer lengths of stay than necessary when the children and youth they serve require inpatient care. In addition, all

[70] Capacity was obtained through personal communication in April 2017, and includes only those hospitals that had psychiatric bed utilization. Youth psychiatric bed utilization is for 2015.

[71] These are the only public inpatient beds for children available to Harris County. Rusk State Hospital, which serves Harris County, does not operate any children's beds. Other beds in the state psychiatric hospital system for children are sometimes used by Harris County children, but we do not count them as locally available beds.

child-serving systems in Harris County have limited alternative options for addressing crises and many turn to inpatient facilities, just as they do in most communities across Texas and the nation. Hospital staff indicated that their facilities receive numerous admission requests as a result of the lack of crisis respite services in the community. As caregivers increasingly face challenges in identifying placement options for children and youth with complex needs, others worry that inpatient psychiatric facilities, along with residential treatment facilities, are being utilized for lack of an alternative placement option, even when there is no clinical need for hospitalization.

One hospital reported that one third of children and youth served in its facility experience re-admission at least once before reaching adulthood. Key informants from several provider organizations all noted limited community options for supporting the transition from inpatient hospitalization to community living. Other hospitals reported beginning discharge planning upon admission but having challenges connecting families with follow-up services beyond short-term continuation of medication and counseling services.

Who Are the Inpatient Psychiatric Care Providers?

The University of Texas Health Science Center at Houston (UTHealth) Health Harris County Psychiatric Center (HCPC) is the major provider of publicly-funded care for children and youth in need of psychiatric hospitalization. The facility is jointly owned by the state and county and operated by the UT Department of Psychiatry. HCPC operates 274 beds and reserves 20 to 22 for the short-term acute care unit for children and youth (average use is higher at over 30 beds). The pediatric beds are split evenly between female- and male-designated beds. Four beds are reserved for children between the ages of four and 12, and the remaining 16 are for youth between ages 13 and 17. The facility serves an average of 1,000 to 1,200 children and youth each year, only about half of whom have any form of insurance coverage.

The children and youth admitted to the facility, along with their families and caregivers, are referred to HCPC from the Harris Center, by court or judicial order, self-referrals, other hospitals, and as walk-ins. Admission is dependent upon risk of potential harm to self or others by reason of psychiatric illness. The length of stay is between six and seven days. The alignment between demand and availability varies throughout the year, with higher demand for services – and the longest wait times for services – during the school year. In the summer, the unit is often underutilized, but up to 10 children and youth can be waiting for services during times of peak demand.

Other hospitals and their bed capacity for serving children and youth are listed below:[72]

[72] The average daily utilization figures and available bed percentages are for 2015.

- Cypress Creek Hospital, located in northern Harris County, currently has a bed capacity of 16 beds for youth. Its average daily utilization is just under 13 beds.
- IntraCare North Hospital, also located in northern central Harris County, has a current bed capacity of 33 beds for youth. Its average daily utilization is just over 25 beds.
- Houston Behavioral Healthcare, located in the northwest Harris County, has 36 beds available for youth. Its average daily utilization is just over eight (8) beds.
- Healthbridge Children's Hospital, which is in southwest Harris County, has 40 beds for youth. Data on its average daily utilization and days with available beds were not available.
- West Oaks Hospital has a current bed capacity of 56. Its average daily utilization is just over 34 beds.
- HopeBridge Hospital, which is in south central Houston, has 24 beds. Its average daily utilization is just over 16 beds.
- The Menninger Clinic, which is also in south central Houston, has a bed capacity of nine. Its average daily utilization was just over nine (9) beds.
- Sun Behavioral Houston is in south central Houston and has a bed capacity of 38. Data on its average daily utilization and days with available beds were not available.
- Harris County Psychiatric Center has bed capacity of 22. Its average daily utilization is just over 30 beds.
- Behavioral Hospital of Bellaire in Houston has a bed capacity of 30. Its average daily utilization is just under 17 beds.
- Kingwood Pines Hospital, located in northern Harris County, has a bed capacity of 76. Its average daily utilization is just over 40 beds.

Based on the capacity and utilization figures, it appears there may be enough overall inpatient bed capacity for children and youth in Harris County on most days. However, there are significant limitations that impede access for children and youth who are uninsured or who have complex needs, and there may not be enough beds overall during seasonal high utilization times (reported by the hospitals as the times when children and youth return to school from school vacations or holidays). Likewise, some stakeholders note occasional reluctance to serve the children or youth referred to them or cite concerns about the proximity of location relative to the referral source. Also, children and youth with complex conditions, especially co-occurring intellectual disabilities and mental health conditions, more frequently experience challenges in accessing inpatient care that addresses their multiple conditions.

How Accessible Are Residential Treatment Options?

In an Ideal System of Care, residential treatment represents a component of the continuum of care for children and youth whose behaviors are not acute enough to require inpatient care, but cannot be managed safely in a less restrictive setting. However, residential treatment is

among the most restrictive mental health services provided to children and youth and, as such, should be reserved for situations when less restrictive placements are ruled out. Safety should be the primary determinant in selecting out-of-home treatment as an option since the evidence-based community interventions described in Appendix B allow for even the most intensive treatment services to be delivered in community settings.

Based on our review of provider information, there are more than 40 private residential treatment facilities available through contracts with the juvenile justice system in the southeast region, which includes Harris County. There are also residential treatment facilities that serve children and youth who require an out-of-home placement in the foster care system.

Similar to psychiatric inpatient care, there is no definitive number of residential beds for children and youth that is agreed upon by national experts. There is a need for some residential treatment centers to provide a secure environment when evidence-based, intensive home and community-based treatment could not be safely provided for the child or youth or the community. Because the research demonstrates that residential treatments are generally not effective models for ongoing care, when they are utilized, residential services should be brief, intensive, family-centered, and close to home.

An unduplicated count of children and youth in residential treatment is not available, but we know that 1,258 children and youth received residential placements through the juvenile justice system in Harris County.[73] Not all of these facilities provide mental health "treatment." Based on stakeholder and provider input, many residential facilities provide more of a "placement" for children and youth who have no other home rather than actual treatment. As a result, we are characterizing them as residential placements.

The residential facilities operated or funded by the Harris County Juvenile Probation Department and Harris County Protective Services Children's Services Division are described later in this report under their service delivery systems.

Crisis Care Continuum / Inpatient / Residential Findings

Crisis Care Continuum / Inpatient / Residential Findings (CCIRF)-1: The need for developing a coordinated crisis response system across all payers, including Medicaid managed care organizations (MCOs), mental health, child welfare, and juvenile justice systems, is essential to improve care delivery during crises and make best use of limited inpatient and other high-cost resources. While Harris County has made a concerted effort over the past decade to

[73] Harris County Juvenile Probation Department. (2016). *Collaboration: Commitment to juvenile success: 2016 annual report*. Retrieved from https://hcjpd.harriscountytx.gov/Published%20Reports/Annual%20Report%202016.pdf

develop its behavioral health crisis services and create alternatives to incarceration and psychiatric hospitalization, crisis diversion programs tend to be specific to particular delivery systems or facilities (e.g., Memorial Hermann, Turning Point), focusing on the diversion needs of a provider, subset of providers, or population of children and youth (e.g., child welfare, juvenile justice) rather than the needs of the community as a whole. In addition, all crisis programs outside the child welfare and juvenile justice systems are focused on a general population and primarily serve adults, rather than children and youth.

As a result, the array of crisis services does not function as a system, a deficiency leading to redundancies that prevent children and youth from getting the right services, including psychiatric hospitalization, at the right time. This observation is not a criticism of any provider or delivery system. Rather it highlights the developmental need to build a coordinated crisis response system across all payers, including Medicaid MCOs, to make the best use of limited inpatient and other high-cost resources. Many of the necessary pieces are in place, but there would need to be a will to develop a more comprehensive system and supportive payment protocols. Experience in other systems nationally suggests that improvement is incremental and very few systems have achieved high degrees of sustained coordination over time.

The goal over time should be to build an organized county-wide "crisis system" capable of responding across the various delivery systems, geographies, and protocols that identify coordination and communication strategies – including electronic communications. The crisis array should ideally be jointly funded across all payers (e.g., state, Medicaid, child welfare, juvenile justice, local, private) to better coordinate access, avoid duplication, and identify gaps, rather than have each funding stream supporting a separate crisis care continuum. It would also be important to establish performance metrics to ensure responsiveness to payer priorities. The 2015 Sunset Advisory Commission report on HHSC reforms prioritized such cross-payer crisis coordination.[74]

CCIRF-2: While there are challenges in accessing inpatient care for many children and youth, the issues appear to be factors other than overall insufficient inpatient capacity, including:

- A lack of resources for inpatient care for children and youth without insurance or with limited insurance;
- The need for more coordination among inpatient, crisis, and emergency room providers at a system level;
- Utilization peaks during the school years and lower levels during vacation times;

[74] Sunset Advisory Commission (2015, February). *Report to the 84th Legislature* (see page 15 and 42). Retrieved from https://www.sunset.texas.gov/reviews-and-reports/agencies/health-and-human-services-commission-hhsc

- Zero-tolerance and school exclusion policies that result in increased pressure on inpatient systems when schools are in session;
- Too few appropriate alternatives for crisis diversion and intensive, evidence-based home and community-based interventions for children and youth (especially those in the child welfare and juvenile justice system);
- Lack of specialized inpatient services for children and youth with complex needs, including co-occurring mental health and intellectual disabilities; and
- Lack of transition services to return to community-based settings.

CCIRF-3: Based on information from stakeholders and providers, many of the residential facilities are not residential "treatment" programs but rather placement options for children and youth who have no other alternative. While most residential treatment options offer safe and sound programs, intensive treatment options are generally limited, particularly in juvenile justice system facilities. What is more, research demonstrates that residential treatment is not an effective treatment model for ongoing care, so, when utilized, residential treatment should have a brief length of stay; an intensive, family-centered focus; and a location close to the child's or youth's family.

Mental Health Capacity in the Harris County Child Welfare System

In 2016, there were nearly 6,000 (5,938) children and youth in Department of Family and Protective Services (DFPS) conservatorship in Harris County, the highest of any county in the state.[75] Harris County is one of 13 Texas counties served by DFPS Region 6. The Harris County child welfare system has a unique structure that differentiates it from other DFPS service regions, including a high degree of collaboration between the state and county governments. Within Harris County, DFPS is responsible for intake, investigations, family-based safety services, foster care, Preparation for Adult Living (PAL) workers, recruitment of foster/adoption homes, and adoption. Additionally, through a contract with DFPS, Harris County Protective Services (HCPS) provides an array of key support services, including a foster care clinic, assessment services, family group conferencing, the Houston Alumni and Youth (HAY) Center, and management of the children's shelter. In coordination with the Harris County Child Welfare Board and TRIAD,[76] HCPS also provides additional funding to support DFPS child protective services (CPS) functions. In addition, HCPS works with the Community Coordination Resource Groups (CCRG) to coordinate care for children and youth across delivery systems.

[75] Texas Department of Family and Protective Services. (n.d.) *CPS children in DFPS legal responsibility by county and Fiscal Year FY08–FY16*. Retrieved from https://data.texas.gov/Social-Services/CPS-Children-In-DFPS-Legal-Responsibility-by-Count/929f-jvud/data

[76] TRIAD a consortium of three county agencies: Houston Child Protective Services, Juvenile Probation, and the Harris Center, provides countywide services to intervene with youth and families before involvement with the CPS, mental health and/or juvenile justice systems.

How Many Children and Youth in Foster Care Receive Mental Health Services?

In the Stephen Group's 2015 study that evaluated the needs for children and youth involved with the Texas foster care system (*Meeting the Needs of High Needs Children in the Texas Child Welfare System*), the authors consolidated data from several information sources to estimate the number of children and youth in conservatorship who had an indication of emotional, medical, or special needs.[77] While the special needs indicator included children and youth who may have multiple needs, the emotional indicator targeted children and youth with a significant mental or behavioral health challenge. The Stephen Group estimated that about 4,345, or 15%, of the 28,031 children and youth in state conservatorship in Texas in 2015 could be classified with an emotional indicator. While specific figures for Harris County were not listed in the report, DFPS has identified close to 900 Harris County children and youth in foster care who have a serious emotional disturbance (SED).

There are no system-wide data summaries of the unduplicated count of children and youth who receive mental health services while also in conservatorship. While we have gathered information on children and youth served in various programs, it remains a challenge to precisely determine the unduplicated numbers of children and youth served. Adding the numbers described below offers one solution, but we do not know if the children and youth in these programs were served by other programs in the same reporting period. We do know, however, that very few children and youth in CPS conservatorship have access to services identified in the Ideal System of Care for children and youth.

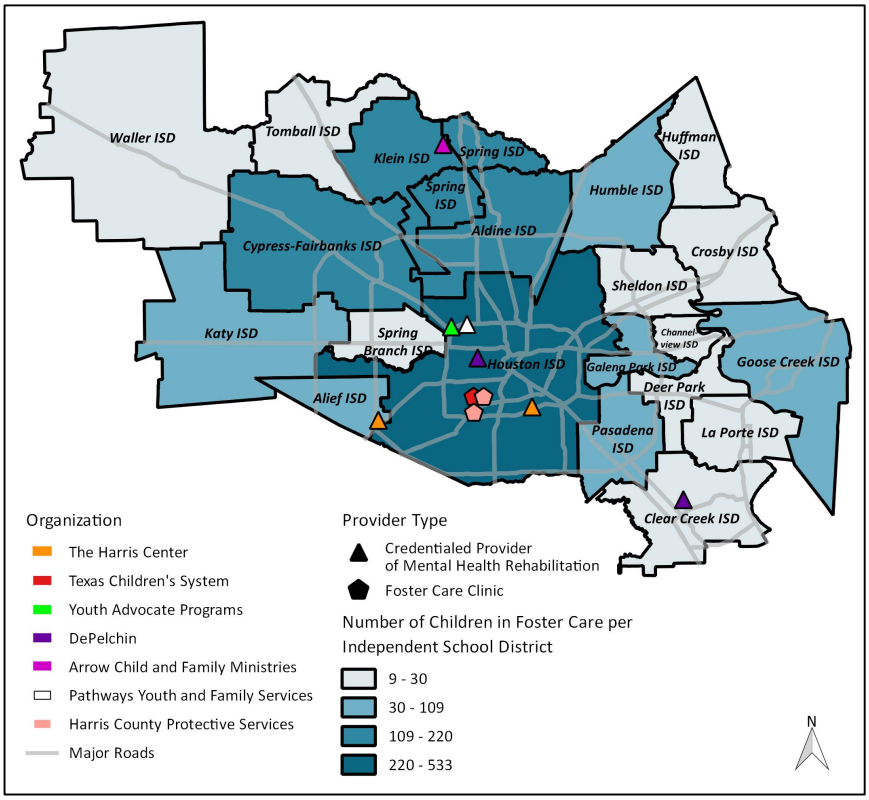
- Twenty-three children and youth in CPS conservatorship have received intensive services (LOC 4), including wraparound facilitation from Pathways, but none received the intensive in-home, evidence-based practices identified in the Ideal System of Care.
- Twelve children and youth received intensive community-based services (LOC YES) from the Harris Center, but these services, while intensive (except for wraparound facilitation and Parent Partners) and offering components of the evidence-based practices identified in the Ideal System of Care, do not meet the fidelity requirements of evidence-based practices. Thus, they are not likely to achieve the best outcomes. The Harris Center uses an evidence-based, trauma-informed care model, but additional intensive home and community-based services are not available.
- DePelchin is applying to become a Mental Health Rehabilitative Services and TCM provider; however, as discussed previously, these services under the Medicaid program do not include the evidence-based models recommended for the Ideal System of Care.

[77] The Stephen Group. (2015). Meeting the needs of high needs children in the Texas child welfare system. Manchester, NH: The Stephen Group. Retrieved from https://www.dfps.state.tx.us/About_DFPS/Reports_and_Presentations/CPS/documents/2015/2015-12-03_Stephen_Group_High_Needs_Assessment.pdf

- Arrow serves approximately 250 to 300 children and youth in the Houston area, most of whom have been identified by DFPS as requiring specialized or intensive services.
- Together DFPS and STAR Health are responsible for connecting all children and youth in state conservatorship with mental health services. For those children and youth with low to moderate mental health needs, there are several options for foster children and youth to receive office-based services within the Medicaid STAR Health provider network. However, these services may not be in locations that are easy to access.

The following map shows the number of children and youth in foster care per school district at a single point in time as a base layer. These data were obtained from DFPS and are current (2017). In general, the number of children and youth in foster care at any point in time represent about half the children and youth in foster care each year. The map also includes the locations of mental health rehabilitation services providers and foster care-specific clinics. Several of the school districts in north Harris County, including Cypress-Fairbanks, Klein, Spring, and Aldine Independent School Districts (ISDs), have high counts of children and youth in foster care and no mental health rehabilitation provider or a foster care clinic.

Children / Youth in Foster Care per School District and Specialized Mental Health Resources[78]



[78] Major Roads shapefile obtained from the Houston Data Portal: Shapefile of Harris County Highways, available at http://data.ohouston.org. Independent school district boundaries obtained from The Texas Education Agency.

Who are the Mental Health Providers for Children and Youth in Foster Care?

The Integrated Care Harris County Protective Services Clinic

Harris County Protective Services (HCPS) operates its own clinic, which exclusively serves children and youth in DFPS or the HCPS system. The clinic provides an integrated health approach as well as housing, medical, dental, and mental health care. It is designed to facilitate ease of access for foster families by providing a broad service array in a single setting. The clinic currently supports the following positions and services:

- Case coordinators who help identify behavioral health needs and provide caregiver support,
- Three parent navigators with lived experience interacting with either the mental health or child welfare system,
- An outreach specialist to link the community to the clinic,
- A program coordinator to assist with data collection and analysis, and
- A visiting psychiatrist who spends two days per week at the clinic, provided through a contract with the University of Texas.

In addition to the positions listed above, the clinic has plans to use grant funding to hire a behavioral health therapist.

Houston Alumni and Youth (HAY) Center

HCPS also supports the HAY Center, which is a one-stop shop for current and former foster youth between the ages of 16 and 25. Services offered at the HAY Center include mentoring, workforce development, college preparation, mental health assessment, medication management, and linkages to the Harris Center. The center also offers peer support using the "Just Do You" curricula.

The Children's Crisis Care Center (4C)

The 4C program administers assessments and provides family conferencing to help establish plans of care for children and youth entering the foster care system. Through a contract with DFPS, HCPS conducts psychological and developmental assessments for children and youth, as well as psychosocial assessments for parents who have had their children or youth removed from their custody. The 4C program also facilitates family and permanency conferences.

(n.d.). *Current districts, 2014-2015 statewide school districts for Texas*. Texas Education Agency Public Open Data Site. Retrieved from http://schoolsdata2-tea-texas.opendata.arcgis.com

The number of children in foster care per district was obtained from the TDFPS IMPACT system and is current, 2017 data. Foster Care Clinics obtained via personal communication with Joel Levine.

Turning Point Mobile Crisis and Foster Care Residential Respite

As described earlier in the crisis continuum component, Turning Point provides mobile crisis interventions, acute stabilization, and psychiatric diversion programming in Harris County through Pathways Youth and Family Services. Turning Point is financially supported by the Superior Health Plan through the STAR Health Medicaid managed care program. The program's primary goal is to serve children and youth in foster care placements and their families and to prevent placement disruptions.

Child Welfare System Mental Health Findings

Child Welfare Findings (CWF)-1: The lack of intensive home and community-based services, such as those defined in the Ideal Service System, that support both foster families (e.g., Treatment Foster Care Oregon) and families of origin, (e.g., Multidimensional Family Therapy) results in limited capacity to meet the needs of these children and youth with SED who have the highest needs. These gaps result in more placements in residential treatment centers and psychiatric inpatient facilities, and limited community supports or alternative services when children and youth leave these restrictive settings. These findings are echoed in the Stephen Group report that identified that the supply of "step-down settings" for children and youth in foster care is dramatically lacking.[79]

CWF-2: Opportunities for providers to obtain additional funding to become credentialed in the delivery of Medicaid Mental Health Rehabilitative Services and Targeted Case Management (TCM) will be available in November 2017. By updating requirements, the recently passed Senate Bill 74, 85th Regular Legislative Session, 2017, aims to expand the provider base and capacity to deliver TCM and Mental Health Rehabilitation Services. There is also funding through grants (under HHSC Rider 172) to assist providers serving children and youth in foster care with the training and credentialing process. These Medicaid-funded services will provide funding for rehabilitative skills-building and wraparound for some children and youth. This approach provides a foundation upon which to build and implement evidence-based practices.

CWF-3 Providers already recognize the need for alternative ways of serving children and youth. In recognition of the severe lack of intensive home and community-based services and its negative impact on placement stability, non-profit foster care providers such as DePelchin, Pathways, and Arrow are investing significant resources to provide (or become credentialed to

[79] The Stephen Group. (2015). *Meeting the needs of high needs children in the Texas child welfare system*. Manchester, NH: The Stephen Group. Retrieved from https://www.dfps.state.tx.us/About_DFPS/Reports_and_Presentations/CPS/documents/2015/2015-12-03_Stephen_Group_High_Needs_Assessment.pdf

provide) wraparound facilitation through Targeted Case Management (TCM) and skill building services through Mental Health Rehabilitative Services under Medicaid.

CWF-4: Foster families need ongoing support and training to improve child and youth outcomes. Implementing the Keeping Foster and Kin Parents Supported and Trained (KEEP) would provide more support to foster families, children, and youth in learning coping skills and ways to negotiate strategies to address challenging behaviors. The availability of Integrated Treatment Foster Care would also help alleviate the shortage of intensive services, which results in children and youth being placed in more restrictive settings such as shelters, residential treatment facilities, and psychiatric inpatient hospitals.

CWF-5: There is a critical need for services along the crisis care continuum (e.g., mobile crisis, emergency shelters) to divert foster children and youth from unnecessary restrictive care settings and support families, schools, and other caregivers assisting these children and youth in crisis. One hospital reported that the average length of stay for the general pediatric population was five to six days. However, for foster children and youth, the average length of stay was 10 days due to a lack of available placements. One foster child was hospitalized for six months because of limited service alternatives in the transition from hospital care. When such situations occur, children and youth do not have access to school or other community-based activities that support positive development. Furthermore, the disconnection from families and caregivers over that period of time prevents the child, youth, and family from working on and mastering the skills that are necessary to effectively resolve conflicts and communicate needs.

CWF-6: Adding services along the crisis care continuum, such as foster care respite, could reduce some of the stress that families and caregivers, including foster families, experience. The Stephen Group identified that in 2015, while the general foster care population experienced an average of 2.7 placements, those with the "emotional indicator" averaged 5.7 placements.[80] Placement disruptions are more likely to occur when foster parents are not equipped to anticipate and address the trauma, behavioral challenges, and mental health needs of the children and youth in their care. Foster parents receive a limited amount of training and few services to support new placements. The little training that foster parents receive generally happens toward the beginning of a new placement, before real-life challenges have occurred. Although it is still a relatively new program, Turning Point has found that foster parents need access to services along the crisis care continuum. About half of Turning Point crisis calls are effectively managed over the phone by providing foster parents with guidance on how to de-escalate a challenging situation. Turning Point estimates the other half of calls are referred to mental health and case management services that were previously lacking. The best practices summary in Appendix B of this report identifies types of evidence-based services needed for

[80] The Stephen Group. (2015).

the Ideal System of Care. These services are critical to maintaining placements and preventing unnecessary, or longer than necessary, hospitalizations and other restrictive out-of-home placements.

CWF-7: Managed care organizations (MCOs) also need to begin expanding their service arrays to include more intensive treatment. MCOs can assist providers by offering incentives to deliver evidence-based practices and using alternative payments such as case rates (that cover the costs of all parts of an evidence-based practice) linked to achieving positive outcomes (e.g., reducing the utilization of more expensive inpatient hospital care and residential treatment).

Mental Health Capacity in the Harris County Juvenile Justice System

The Harris County juvenile justice system provides some of the most diverse and intensive mental health services available in Harris County. Unlike mental health services provided in other settings, these services are generally offered through the county or a county contractor, so a child's, youth's, or family's insurance type or ability to pay has less direct impact on service availability. However, these services are also limited to children and youth who are in contact with the juvenile justice system, and service capacity is extremely limited.

With additional funding from Houston Endowment, MMHPI is collaborating with the Council of State Governments (CSG) Justice Center to carry out an in-depth assessment of service needs and availability within the juvenile justice system. That report will be published separately. Findings below provide a high-level overview of needs and key services, incorporating some of the initial findings from the CSG Justice Center.

National and Harris County-specific studies on the juvenile justice population concur that children and youth involved with the system have higher rates of mental health conditions than the general population. A 2006 multi-state study on mental health of young people involved with the juvenile justice system found that about two thirds had a diagnosable mental health need and that one third experienced a serious mental health condition warranting immediate treatment.[81]

[81] National Center for Mental Health and Juvenile Justice. (2006, June). *Research and program brie*f. Retrieved from https://www.ncmhjj.com/wp-content/uploads/2013/11/PrevalenceRPB.pdf

How Many Children and Youth in the Juvenile Justice System Receive Mental Health Services?

In 2016, the Harris County Juvenile Probation Department (HCJPD) received 11,457 referrals involving 6,771 children and youth.[82] Of those, the HCJPD identified 4,516 with any mental health condition and 2,225 with serious emotional disturbances (SEDs).
Through information provided by various sources (HCJPD, DFPS, HCPS, the Harris Center, and others), we determined the following figures for FY 2016:

- 1,258 children and youth received residential treatment: 1,125 children and youth on probation received residential treatment center services through HCJPD (1,075 placed in HCJPD's four secure residential facilities, 50 placed in private residential facilities under contract to HCJPD, and another 133 placed in the sub-acute unit at the Harris County Psychiatric Center) and another 159 were placed with the Texas Juvenile Probation Department (TJJD).[83]
- 671 youth in probation received other mental health services (mostly clinic-based). Some partner providers offered evidence-based practices such as the cognitive behavioral therapies and trauma-informed care, which are also clinic-based.

The CSG Justice Center, in its ongoing study on pathways into the Harris County juvenile justice system, found that despite heightened need for mental health services among children and youth involved with the juvenile justice system, few receive mental health services through the local mental health authority (LMHA), and those who do receive very little. The CSG Justice Center study identified that:

HCJPD provided MST directly, an evidence-based practice recommended by MMHPI. The Harris Center provided YES Waiver services, including Wraparound and Parent Partners.

- About 20% of children and youth involved with the juvenile justice system had contact with the Harris Center and
- Only 5% of those served received rehabilitative services (Level of Care [LOC] 3 or 4), meaning the remainder were provided only with clinic-based outpatient services.

[82] Harris County Juvenile Probation Department. (2016). *2016 year-end summary brief*. Retrieved from: https://hcjpd.harriscountytx.gov/Published%20Reports/2016%20Annual%20Executive%20Report%20with%20Summary.pdf
[83] Harris County Juvenile Probation Department. (2016).

Of the 6,771 children and youth in the juvenile justice system, 1,842 (27%) received MH services, but about more than two thirds of them (1,258) received MH services in residential placements, the least effective modality for most children and youth.

There is an imbalance between the intensive home and community-based services that are available for children and youth and the residential services that are available. The challenge is finding alternatives to residential services, especially when there is a safety risk or no alternative placement. As described previously in the Ideal System of Care section of this report and in Appendix B, residential services are known to have poor outcomes. Alternatively, the intensive home and community-based services defined in the Ideal System of Care, when delivered with fidelity by trained and supervised staff, have good outcomes for children and youth, reduce recidivism, and facilitate school and family engagement. As described in the previous sections on evidence-based intensive services, YES Waiver services offer more intensive services than specialty office-based treatment, with the exception of wraparound service coordination, yet do not offer the level of intensity or evidence-based effectiveness as those needed. While some children and youth will still need residential treatment because of safety concerns, the expansion of intensive, evidence-based home and community-based services could effectively serve many children and youth who are in psychiatric and residential treatment facilities.

Who are the Mental Health Providers for Children and Youth in the Juvenile Justice System?

HCJPD Mental Health Screening and Assessment Process

In accordance with state law, HCJPD is required to provide the Massachusetts Youth Screening Instrument 2 (MAYSI-2) to all children and youth referred to the department. The MAYSI-2 is a self-report screening instrument designed to help identify possible mental health concerns for children and youth with juvenile justice involvement. Individuals detained by HCJPD are required to receive the MAYSI-2 within 48 hours of admission. HCJPD data indicate that between 2011 and 2016, an average of one third of individuals formally referred to the department were detained.[84] In a community setting, if a child or youth is identified as having a potential mental health need through his or her MAYSI-2 results, HCJPD provides the family with information on the assessment as well as mental health services available in the community.

The completion rate of the MAYSI-2 ranges between 72% and 76%.[85] Those who are referred but not detained (two thirds of the HCJPD population) are intended to receive a MAYSI-2 within

[84] Fabelo, T., et al. (2017, January 23). General analysis of the TJJD Harris JPT juvenile probation trends and MH needs: Internal report to the HRJPD and MMHPI. Justice Center, Council of State Governments, Austin, Texas.
[85] Council of State Governments data provided to MMHPI.

two weeks of referral. The completion rate for these assessments is lower. While the MAYSI-2 is an effective tool to help flag potential concerns that warrant follow up, it is not intended or appropriate for making diagnoses. If the child or youth flagged through the MAYSI-2 is in detention, HCJPD policy requires mental health services staff to meet with the youth within 24 hours to further evaluate and address the youth's mental health needs. To address gaps in the current assessment process, in 2007 HCJPD instituted a behavioral health screening, administered by mental health clinicians, to determine the mental health needs of youth in the detention center. Additionally, HCJPD leadership indicated that it will be implementing the Positive Achievement Change Tool (PACT) this year to better address mental health needs as they relate to case planning and youth disposition.[86]

HCJPD Mental Health Services and Supports

HCJPD directly provides some mental health services and partners or contracts with other providers for additional services. HCJPD mental health programs include a specialty court, mental health services within facility-based programs, and field (community-based) programs for children and youth who are on probation. The following section describes some of the major HCJPD community-based programs that address mental health, including target populations, program goals, and service capacity.

Juvenile Mental Health Court. Recognizing that many children and youth with juvenile justice involvement have unaddressed mental health concerns, Juvenile Mental Health Courts aim to reduce future involvement with the system by helping identify and provide appropriate services to child and youth offenders with mental health needs. Involvement with the Harris County Juvenile Mental Health Court requires that participating children, youth, and their families complete specified services and activities over a minimum period of six months. In the majority of cases, HCJPD pairs a therapist with a probation officer. In other cases, the probation officers work with community providers. Required services may include individual, family, or group therapy; reoccurring check-ins with a probation officer; psychiatric treatment; mentoring; and educational supports. Successful completion of the program results in deferred prosecution and can also lead to dismissal of the original charge if the child or youth avoids any further involvement with the system throughout the term of deferred prosecution.[87] In 2015, 37 children and youth were seen in Juvenile Mental Health Court, and 22 completed the program.

Growing Independence Restoring Lives (GIRL's Court). GIRL's Court began as a specialty court for young women who were involved or at-risk for involvement with human trafficking or

[86] Barnoski, R. (2009). *Positive Achievement change tool pre-screen instrument*. Tallahassee, FL: Florida Department of Juvenile Justice. Retrieved from http://www.assessments.com/catalog/PACT_Pre_Screen.htm

[87] Harris County Juvenile Probation Department. (n.d.). *Harris County Juvenile Probation Department programs and services*. Retrieved from https://hcjpd.harriscountytx.gov/Pages/Programs.aspx

prostitution. However, because of increased awareness of trafficking involvement for both genders, the court began to take some male cases as well.

GIRL's Court takes a multi-disciplinary approach to addressing trauma and other underlying concerns. As with the Juvenile Mental Health Court, successful completion of the program also allows for case dismissal. To help provide families with access to sustainable and longer-term services, both the Juvenile Mental Health Court and the GIRL's Court have a full-time psychologist to help connect participating children and youth with therapy and other support services in the community.

Multisystemic Therapy (MST). HCJPD funds and operates two of four MST teams in the state of Texas. MST is an evidence-based and family- and community-based intervention designed to address the environmental factors (family, school, friends, etc.) that influence chronic and violent juvenile offenders. It is also one of the evidence-based practices we recommended in the Ideal System of Care.[88] HCJPD began offering MST in 2009 to serve children and youth at the highest risk for re-offending or being removed from the home. Studies on the effectiveness of the program reveal that when administered to fidelity, MST lowers the chance of an out-of-home placement by 50%.[89] In Harris County, 80–85% of children and youth who begin the program see it through to completion, and after six months, 81% have not been re-referred.

When a family begins receiving MST through HCJPD, the process starts with an assessment to build familiarity and identify the drivers or causes of the problematic behaviors demonstrated by the young person of focus. Once established, the plan of care aims to address between two and five behaviors that increase the individual's risk for an out-of-home placement. Once the causes of concern have been identified, the MST team works with the family to identify strategies and strengths that have previously been effective and develops interventions to help mitigate the challenging behaviors – and their causes – from reoccurring. MST is provided on a short-term basis but is highly intensive, requiring close supervision by team members and ensuring recipients and their families have access to support staff 24 hours a day, seven days a week. The two HCJPD MST teams both include four master's-level therapists and a supervisor. Each therapist is limited to serving five families, with each family receiving between 12 weeks and six months of therapist support.

The HCJPD MST program operates with fidelity to the program model, which is costly but effective; HCJPD funds its MST program. Demand exceeds capacity – among eligible and willing families, the wait to begin receiving MST services through HCJPD averages between six and 12 weeks. Of those with expressed interest in the program, HCJPD prioritizes court-ordered cases

[88]Multisystemic Therapy. (n.d.). *What is MST?* Retrieved from http://mstservices.com/what-is-mst/what-is-mst
[89]Multisystemic Therapy. (n.d.).

and those with the most severe behavioral problems. The HCJPD MST program served a total of 65 children and youth over the course of FY 2015, 85% of whom completed the program.

Field Services Division Programs. Most children and youth with juvenile justice involvement are not detained and remain at home on probation. Children and youth on probation are supervised by the Field Services Division at HCJPD. Field Services includes nine Community Unit Probation Services (CUPS) teams, each with its own specialized focus. Several of the CUPS teams offer specific programming and services for children and youth with mental health needs. Therapists on CUPS teams provide brief individual counseling, family therapy, and group therapy that focuses on skill building for children and youth. CUPS also provides referral services in the community for those who need longer-term services.

Special Needs Diversionary Program (SNDP). The Special Needs Diversionary Program (SNDP) was created in 2001 to provide mental health treatment and specialized supervision to rehabilitate juvenile offenders and prevent them from penetrating further into the criminal justice system. The program is administered in a collaborative model by the Texas Juvenile Justice Department (TJJD) and the Texas Correctional Office on Offenders with Medical and Mental Impairments (TCOOMMI). Through specialized grant funding from TCOOMMI, SNDP provides mental health services and specialized supervision for children and youth on probation who have significant mental health needs. Priority is given to children and youth who have been identified as having a serious emotional disturbance.

The program employs a team approach to prevent future delinquency by providing coordinated services and supports. The SNDP unit consists of four teams, each including a probation officer and therapist employed through the Harris Center. Children and youth served through SNDP also have access to a psychiatrist employed through HCJPD, educational services, case management, skills training, and connections to community-based programs. SNDP services are described in greater detail in the overview of Harris Center partnerships below. This program is restricted to children and youth that live within Beltway 8.

In FY 2014, 165 children and youth received services through SNDP, 74% of whom successfully completed the program, exceeding the statewide average of 68% (identified by TCOOMMI in 2011).

Community-Based Stabilization Unit (CBSU). CBSU serves children and youth post adjudication who are eligible for services through the Harris Center and are referred by the Residential Assessment Unit, the Harris County Psychiatric Center, and the Burnett-Bayland Rehabilitation Center (BBRC) Psychiatric Stabilization Unit. The program provides intensive supervision to ensure continuity of care for mental health care and other support services.

CBSU uses the Child and Adolescent Need and Strength (CANS) to determine a level of care for the children and youth it serves. CBSU staff partner and coordinate with staff from the Harris Center in providing services, which are delivered through a multi-disciplinary team. The Harris Center provides a licensed mental health provider who coordinates with the probation officer. The team also includes a facilitator, much like wraparound and Parent Partners, based on the individual's assessed level of care.

Detention and Residential Treatment

Forensic Unit. This unit, housed in the Juvenile Detention Center, provides psychological and psychiatric assessments to youth awaiting a court hearing. With support from the JEHT Foundation and Mental Health America (MHA), HCJPD developed a behavioral health screening tool designed to effectively and efficiently identify children and youths' mental health and substance abuse issues prior to appearing in court. CSG found that about 58% of children and youth who were screened with the JEHT had a mental health need and that 32% had a serious mental health disorder. All youth that have been detained more than 48 hours receive a behavioral health screening, which includes the administration of an intellectual screening tool (Test of Nonverbal Intelligence) as well as a brief measure of achievement (Wide Range Achievement Test). The behavioral screening is primarily conducted with youth who are detained while awaiting their court hearing; however, in recent years the courts are requesting the assessment for youth residing at home while awaiting their court hearing. The tool also helps identify youth who may require further evaluation to better determine treatment needs. The 2016 Annual Report[90] indicates that the Forensic Unit conducted 1,516 screenings, 658 full assessments, and 288 psychiatric assessments.

Post-Adjudication Services. Harris County Juvenile Probation Department (HCJPD) reported that in FY 2016, it served 1,075 children and youth in four post-adjudication programs and another 50 children youth through contracts with private residential treatment centers. The programs include:

- **Harris County Youth Village (HCYV)**. The 2016 Report on Regionalization notes that HCYV has a current staffed capacity of 104 beds. It houses a residential facility for older youth that offers GED and vocational training as well as a therapeutic program for girls. The HCYV served 341 children and youth in 2016. The Girls Inspiring Future Triumphs (GIFT) program, a therapeutic program for girls with significant trauma histories, served 62 children and youth last year.
- **Boys Overcoming Obstacles for Success and Triumph (BOOST).** This program, located at the Harris County Youth Village, is a residential juvenile justice program that treats

[90] Harris County Juvenile Probation Department. (2016). *Collaboration: Commitment to juvenile success: 2016 annual report*. Retrieved from https://hcjpd.harriscountytx.gov/Published%20Reports/Annual%20Report%202016.pdf

youth who have experienced childhood trauma. The length of stay is generally four to six months. During this time frame, the residents attend group therapy multiple times a week as well as individual and family therapy once a week. Dialectical Behavior Therapy (DBT), Trauma-Focused Cognitive Behavioral Therapy (TF-CBT), and Eye Movement Desensitization Reprocessing (EMDR) – all evidence-based therapies – are used in individual and group settings to encourage growth and change.

- **Burnett-Bayland Rehabilitation Center (BBRC).** BBRC houses three programs and is staffed for 120 beds. It specializes in treating children and youth with substance abuse conditions and sexual offenses. Forty-eight (48) beds in the facility are dedicated to a substance abuse program in coordination with Turning Point, and 12 beds are dedicated to a sex offenders' treatment program. In 2016, 339 children and youth were served in 2016.
- **Private Residential Treatment Facilities.** HCJPD contracts with several licensed residential facilities located in Texas and throughout the United States. When a child or youth's needs cannot be met in one of HCJPD facilities, he or she is considered for a private placement. In 2016, HCJPD spent more than $2.5 million to place 50 children and youth in private residential treatment facilities.

Partner-Provided Services

TRIAD Prevention Program. As described previously in the crisis continuum section, this program is jointly funded and staffed by the Harris County Juvenile Probation Department, Harris County Protective Services for Children and Adults, and The Harris Center for Mental Health and IDD. The program provides access to crisis intervention services 24 hours a day / seven days a week (24/7) for children and youth who have been detained by the police for status offenses such as runaway, truancy, or Class C misdemeanors, as well as for those in need of crisis intervention. Program services include 24/7 screening, referral, and, when appropriate, emergency shelter placement.

Harris County Advocate Program (H-CAP). HCJPD contracts with the Youth Advocate Program (YAP) to provide supportive community-based services to children and youth at elevated risk for placement in a residential treatment or a post-adjudication facility. Individuals served through the program are referred through their probation officer based on an internal risk assessment or through HCJPD specialty court programs. H-CAP includes individualized services and supports using a wraparound approach in fidelity to the national wraparound model. Through the H-CAP program, YAP connects participants to appropriate mental health and support services in the community.

H-CAP was developed to curb costs associated with residential placements and to address high rates of recidivism for children and youth with juvenile justice involvement. It is designed to

reduce recidivism by assisting children, youth, and their families to identify and make use of community-based resources that meet their individual needs within their own communities. Children, youth, and their families are linked collaboratively with pre-existing community supports and resources that remain in place after H-CAP services have been completed. Youth Advocate Programs, Inc., also uses a wraparound-based approach to provide support and empower children, youth, and their families. At its height, the program operated through two offices and provided wraparound services to an average of 100 cases in a six-month period. In 2016, a total of 81 children and youth received wraparound services through the program.

The Harris Center. The Harris Center partners with TCOOMMI and HCJPD's Special Needs Divisionary Program (SNDP) to provide services to children and youth with juvenile justice involvement and mental health needs, as determined through court screening, diagnostic review, and a risk assessment. It served 1,164 youth with mental health needs in the juvenile justice system across all Harris Center programs in the most recent year for which reports were available. HCJPD probation officers are co-located with a Harris Center supervisor and therapist. This voluntary program includes a total of four teams located in different areas of Harris County and provides participating families with services at any time of the day or night when needs appear and through weekly contacts in their homes and school settings. When children and youth are referred to the program, they are screened using the Child and Adolescent Needs and Strengths (CANS) and the risk assessment tool used by juvenile probation. The Harris Center finds that many participants are assessed through the CANS at a Level of Care (LOC) 4, which makes them eligible for intensive family services. This is an intensive program for children and youth who have been identified by juvenile justice as having complex mental health needs and have been court ordered to participate. Youth enrolled in this program are visited three to five times a week by a therapist or probation officer and meet monthly with the psychiatrist. The Harris Center reported that it has experienced challenges in engaging families to participate in wraparound facilitation, a state-required component of intensive family services. When eligible youth are assessed into a LOC 4 and families do not want to participate in wraparound, the youth is designated as LOC 2, but continues to receive TCOOMMI-funded case management services instead of wraparound facilitation. This contributes to the Harris Center's relatively low provision of LOC 4 services.

Probation teams serve between 48 and 60 children and youth per month. SNDP/TCOOMMI caseloads range between 12 and 15 cases per team. Partnering probation officers and Harris Center therapists meet regularly to confer on cases and also meet with a larger treatment team monthly. The treatment team includes the therapist and probation officer's supervisors, a psychiatrist, and other individuals who provide case support. Individuals served through the program may continue to receive services until all needs have been met, the parent or

caregiver ends services, or, if applicable, the child or youth has further involvement in the juvenile justice system.

The Harris Center partners with TCOOMMI to meet the needs of youth on TJJD parole by providing mental health services throughout Harris County. Parole officers participate in monthly case planning meetings with Harris Center therapists and the assigned caseworker.

The CHOICES program, also operated through the Harris Center, serves first-time juvenile offenders who are pre-adjudicated and referred by the courts. The program lasts 90 days and includes skills training, Parent Partners, medication, therapy, case management, and employment services. If families request a continuation of services past 90 days, they are referred to Child and Adolescent Services (CAS) at the Harris Center's outpatient clinics.

The Harris Center also works with Harris County Juvenile Probation and Harris County Protective Services to provide other services that are more fully described in other sections of this report. These include services provided for the Community Base Stabilization Unit (CBSU), the Juvenile Justice Community Unit Probation (CUPS), the Juvenile Justice-Alternative Education Program (JJAEP), and the Children's Forensic Unit, as well as with Children's Protective Services in the TRIAD Mental Health Program. The goal of all of these programs is to manage symptoms of mental illness through medication and other therapies, provide support and coordination, develop a network of agency and community resources, and increase awareness through consumer and family education.

Houston: reVision. Houston: reVision is a non-profit program that focuses on children and youth who are directly involved with the criminal or juvenile justice systems or are at the highest risk for future involvement. Those identified as high-risk for future involvement are served through the Houston: reVision school-based program, which is described in the school-based clinic section of this report.

Dual Status Youth Initiative. Findings from the *YouthCount 2.0!* Study from 2015 identified that Harris County youth with previous involvement in both the juvenile justice and the child welfare systems experienced elevated rates of mental distress and trauma compared to youth involved only with either the juvenile justice system or the child welfare system.[91] In recognition of the challenges and complexities associated with "dual system involvement," a group of local stakeholders joined to form the Dual Status Task Force with the primary goal of improving outcomes for dual status youth. The Dual Status Task Force identified leaders from HCJPD, Harris County courts, DFPS, HCPS, HISD, the Harris Center, community-based organizations, and

[91] Narendor, S. C., Santa Maria, D. M., & Cooper, J. A. (2015, May 13). *Youth count 2.0: Full report of findings*. Retrieved from https://ssl.uh.edu/socialwork/_docs/Research/FINAL%20REPORT%20YOUTH%20COUNT%202.0.pdf

non-profit groups, as well as local leaders, youth, and academic institutions to join what has become the Dual Status Youth Initiative Steering Committee.

Participants in the Dual Status Task Force reported that prior to its formation, child welfare and juvenile justice agencies struggled to communicate and coordinate services for youth who were dually involved and that young people were aging out of both systems without adequate skills and supports for independent adult living. In 2016, Houston Endowment bolstered the Dual Status Task Force's work by providing financial support to several related projects and funding for dedicated staff positions.[92]

Juvenile Justice System Mental Health Findings

Juvenile Justice Findings (JJF)-1: There is an over-reliance on residential services and inpatient psychiatric facilities to address safety concerns. Community members, judges, family members, schools, and others who struggle to manage challenging behaviors in the absence of adequate home and community-based resources place continuous pressure on HCJPD to "find" an out-of-home placement. Despite the efforts of HCJPD to provide evidenced-based practices directly (such as MST), without adequate system-wide capacity to provide such care, too many children and youth are served in residential placements instead of the evidence-based practices through intensive home and community-based services.

JJF-2: The actual treatment capacity at juvenile justice residential facilities is limited. The facilities provide primarily housing and behavior management. While most residential treatment options offer safe and sound programs, intensive treatment options are generally absent. What is more, research demonstrates that residential treatments are generally not effective models for ongoing care, when they are utilized, residential services should be brief, intensive, family-centered, and close to home.

JJF-3: Children and youth involved with HCJPD who have a flagged mental health need experience worse outcomes than other children and youth in the juvenile justice system. The Council on State Government Justice Center's initial findings indicate that children and youth in the juvenile justice system who were identified with mental health needs were:

- Less likely to successfully complete probation,
- More likely to end up re-incarcerated in a secure placement, and
- More likely to reoffend at higher rates (increased recidivism).

[92] Houston Endowment. (2016, October 18). *Harris County dual status youth initiative: Strengthening the systems that support at-risk youth*. Retrieved from: https://www.houstonendowment.org/feature/harris-county-dual-status-youth-initiative/

JJF-4: Harris County Juvenile Probation Department, independently and in collaboration with the Harris Center and the Youth Advocate Program (YAP), provides a limited amount of intensive, home and community-based services to a small number of children, youth, and their families. But even this limited capacity is more than twice the level that is provided to children, youth, and families prior to involvement in the juvenile justice system. Approximately 670 children and youth have access to this care each year. These services include Multisystemic Therapy (MST), a Family Preservation Program, TCOOMMI services, and wraparound. This is more than twice the number of children and youth who have access to comparably intensive services through the mental health system, and the children and youth served through the MST program are the only children or youth in Harris County currently receiving an intensive evidence-based model of care.

System-Level Findings and Recommendations

The goal of this study was to understand and describe the current capacity of Harris County's service delivery systems to help children and youth experiencing mental health needs and their families. Across the findings for each major component of the system, we identified numerous factors that collectively have an impact on the strength of services for children and youth with mental health needs and their families. In this section, we synthesize our system-level findings from the broader report. The report concludes with nine strategic recommendations that could serve as "game-changers" to move Harris County incrementally closer to the Ideal System of Care.

System-Level Findings

System-Level Finding (SLF)-1: Harris County is home to several very effective integrated primary care clinics (including many that are school-based), most notably through Memorial Hermann Health System (Memorial Hermann), Legacy Health, Vecino Health, and The Harris Center for Mental Health and IDD (Harris Center), but also increasingly through Texas Children's Hospital and Harris Health System. These systems provide a strong base to build on, though the need far outstrips available capacity, just as it does in nearly every other community across Texas and the nation. Pediatric primary health care providers require the support of behavioral health clinicians and prescribers to consult on behavioral health care if they are going to address screening, identification and treatment, and ongoing support of their pediatric patients and families.

SLF-2: Office-based specialty providers are more numerous, but there are gaps in access in the outlying geographic areas and in areas with growing rates of poverty. However, while there are capacity gaps, they are less severe than the gaps for Integrated Primary Care (Component 1) and more intensive services (Component 3). As in the rest of Texas and the nation, there is a significant gap in the availability of child psychiatrists and other prescribers for

children and youth with moderate to severe behavioral health conditions that cannot be served in integrated primary care settings. The Ideal System of Care of the future would shift some youth with mild to moderate mental health conditions from specialty behavioral health settings to the integrated care system. This shift would allow behavioral health specialists to focus on youth with moderate to severe conditions, re-allocating resources for serving youth with higher intensity needs to Specialty Behavioral Health Care settings.

SLF-3: Harris County has a well-established platform for mobilizing efforts to address school behavioral health through MHA of Greater Houston's Center for School Behavioral Health, as well as many outstanding programs that provide school-linked and school-based behavioral health initiatives. However, their reach is limited, given the size of Harris County. With over 1,000 public schools across Harris County, the school-based and school-linked behavioral health programs cannot meet current demand. However, there are multiple, well-functioning efforts to build on. This includes partners to help address the full continuum of student needs, particularly basic needs and support for parents and caregiver mental health needs.

SLF-4: The vast majority of children and youth in poverty with low to moderate needs are eligible for mental health services paid by Medicaid or CHIP, but less than one in five receive mental health care of any type.

- Medicaid enrollment is widely available to low income children and youth; in FY 2015 across Texas, 3,705,335 Texas children and youth were enrolled in Medicaid or CHIP (51% of all children and youth), and the Texas Demographer estimates that slightly fewer children and youth (3,566,287) lived in families with incomes below 200% of the federal poverty level (49% of all Texas children and youth).
- While some groups of children and youth are not eligible (e.g., those without documentation of citizenship), Medicaid or CHIP is available to most Harris County children and youth in poverty, yet this availability has not resulted in widespread receipt of mental health services from Medicaid and CHIP.
- In Harris County, several MCOs provide mental health services paid for by Medicaid / CHIP. These services typically involve routine outpatient care, with approximately 40,000 Harris County children and youth receiving such services. In contrast, we estimate 160,000 Harris County children and youth in poverty have any level of mental health need, and 35,000 of them have serious emotional disorders (SEDs).[93] Thus, only 25% of Harris County children and youth in poverty access any outpatient mental health care services, and it appears that even fewer of those with SED receive needed care (and the vast majority do not access the effective care best matched to their needs).

[93] Strategic Decision Support, HHSC. (2016, April). *Statewide and regional data concerning receipt of services through Medicaid and CHIP*. Data source: AHQP Claims Universe, TMHP; Enc_Best Picture Universe, TMHP. Filename: TX Medicaid Children Youth BHMH Service By Type County FY14-15_final.xlsx

SLF-5: There is a dramatic lack of intensive home and community-based care for the 4,000 children and youth at highest risk of being placed out of home or out of school.

- Currently, fewer than 250 children and youth in Harris County receive high-intensity home and community-based services through the mental health system, approximately six percent (6%) of the total in need. Essentially none receive evidence-based treatment commensurate with their needs (other than wraparound service coordination, which is a coordination support, not a treatment). By contrast, twice as many youth (670) receive such intensive home and community-based care through the juvenile justice system, with a smaller proportion receiving evidence-based treatment through HCJPD's Multisystemic Therapy program.
- Going forward, the Harris Center Coordinated Specialty Care program will be available to youth under age 18, including those with Medicaid. But that program's capacity is limited.
- Providing needed intensive services through the mental health system to fewer than one in sixteen children and youth with the highest levels of need contributes directly to an overreliance on services accessed through the juvenile justice system and out-of-region residential treatment.
- As a point of comparison, over 1,250 youth received residential level treatment through Harris County's juvenile justice system in Fiscal Year 2016, care paid for entirely by the county without leveraging the Medicaid benefits available to most of these children and youth.
- In addition, many more with the highest needs continue to languish in residential care in Department of Family and Protective Services (DFPS) custody.

SLF-6: The limited capacity of community-based mental health providers (particularly at intensive levels), the nearly total absence of any evidence-based models for intensive services, the variable quality of the broader capacity, and limited resources for early intervention are the primary drivers funneling youth with the greatest need for mental health services into the juvenile justice system. Key informants reported a lack of insurance coverage (despite broad access to Medicaid and CHIP for those in poverty) as a secondary driver.

SLF-7: The primary barrier to building capacity for intensive home and community-based care is provider capacity, not a simple lack of insurance coverage. While most children and youth in need have some type of coverage, reimbursement rates are very low, especially for Medicaid and CHIP, but also for private coverage.

- Most children and youth in need have insurance coverage, and the Texas Medicaid program includes services for those in need of intensive services in its benefit.
- At the same time, Medicaid and CHIP rates are very low, unable to pay for the higher credentialing and training required for evidence-based models.

- We also found a general lack of awareness and understanding among providers regarding the specific nature and complexity of state-of-the-art, evidence-based, intensive, community-based practices such that providers are often not aware of even the gaps in their own service arrays.
- Such services are not currently available at all to children and youth outside of the public system. This is a statewide and, in many ways, a national problem, as these services have only been developed in the public sector generally across Texas and the country, typically without attention to the requirements of evidence-based models with demonstrated efficacy.

SLF-8: Resources to coordinate care for children and youth with the highest needs and multiple-system involvement are limited in scope or in initial stages of development. Crisis services are particularly stretched, though many well-functioning but limited programs are available.

- Access to Wraparound Service Coordination is small, but growing. While wraparound is not a treatment modality, it is an essential support for the relatively small subset of children, youth, and families with particularly complex conditions and multi-agency involvement such that discrete service options are not available. However, state requirements to provide wraparound to all children and youth with intensive needs are misguided, and need to be rebalanced with efforts to develop evidence-based, intensive treatment.
- The array of crisis services includes many important resources that perform well in many circumstances, but it does not function as a coordinated system, leading to redundant backups that prevent children and youth from getting the right service at the right time, including psychiatric hospitalization. This does not reflect criticism of any provider or delivery system. Rather, it highlights that the need for development of a coordinated crisis response system across all payers, including Medicaid MCOs, is essential to make best use of limited inpatient and other high cost resources.
- The Dual Status Youth Initiative, developed to address the needs of youth involved in the juvenile justice and child welfare systems, is a cross-system collaboration initiative that established a back-bone agency to facilitate system alignment and develop robust and effective supports for youth involved in both systems. It may be possible to build on this initiative to promote broader crisis system alignment.

SLF-9: While there are challenges in accessing inpatient care, we conclude that insufficient inpatient capacity is likely not the key factor but rather relates to the following factors:

- A lack of resources for inpatient care for children and youth without insurance or with limited insurance;
- The need for more coordination among inpatient, crisis, and emergency room providers at a systems level;

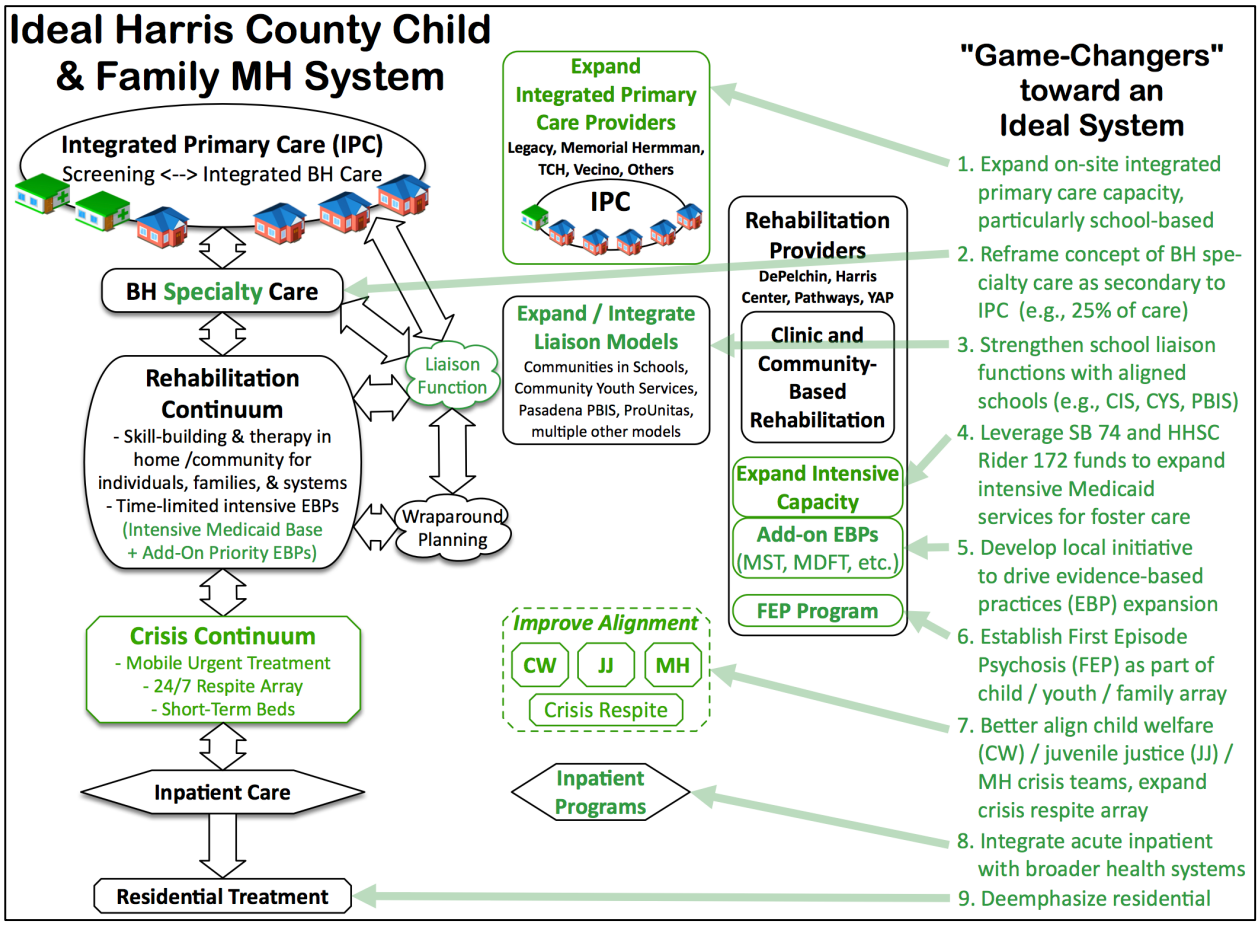
- Utilization peaks during the school year and lower levels during vacation times;
- Zero-tolerance and school exclusion policies that result in increased pressure on inpatient systems when schools are in session;
- Too few appropriate alternatives for crisis diversion and a relative absence of intensive, evidence-based home and community-based interventions for children and youth (especially those in the child welfare and juvenile justice systems);
- Lack of specialized inpatient services for children and youth with complex needs, including co-occurring mental health and intellectual disabilities; and
- Lack of transition services to return to community-based settings.

SLF-10: Most residential treatment facilities (RTFs) provide limited "treatment" and function as placement options for children and youth who have no other alternative. While most residential treatment options offer safe and sound programs, intensive treatment options are generally limited, particularly in juvenile justice system facilities. What is more, research demonstrates that residential treatment is not an effective treatment model for ongoing care, so, when utilized, residential treatment should have a brief length of stay, an intensive, family-centered focus, and a location close to the child's or youth's family.

Strategic Recommendations

No community in Texas or across the nation currently has an Ideal System of Care for children and youth with mental health needs. However, the bigger problem is that we are not aware of any community in Texas or the nation that has moved beyond general aspirations to implement a strategy to build such a system, from primary care to tertiary and residential care. The good news is that Harris County still has a chance to be the first community to develop such a strategy.

This report was developed to serve as a basis for community and health system leaders to develop such a strategy. In this section we recommend nine strategic shifts that could serve as "game-changers" to help move Harris County incrementally closer to the Ideal System of Care.



Our recommendations emphasize the "game changers" for an Ideal System of Care in Harris County, organized by each of the major components of the Ideal System of Care.

Component 1: Integrated Primary Care

System-Level Recommendation (SLR)-1: Expand on-site integrated primary care with an emphasis on school-based integrated primary care. The latest research suggests that up to two thirds of children and youth with mental health needs, and their families, could be served in integrated primary care settings, especially school-based clinics, if those settings have sufficient supports and resources. Schools are located where children, youth, and their families live. Specialty provider offices are generally not in high poverty areas where the adverse childhood experiences are most challenging. While students and their families can still choose to seek care off-site, school-based resources can improve access for many children, youth, and families.

- Integrated care clinics in schools normalize the process of obtaining mental health services as part of whole health care. However, it is critical that the school and school district have adopted and actively promote a developmentally focused social-emotional learning framework, otherwise behavior is likely to be viewed through a "zero tolerance" lens. These models can be best practices that would complement successful implementation of school-based integrated clinics. Many schools across Harris County have adopted such models, and MHA of Greater Houston's Center for School Behavioral Health is a key support to broadening adoption of these models.
- Engagement of teachers and school staff can also improve efforts to identify and address needs related to social determinants of health such as gaps in stable housing, hunger, protection from interpersonal violence, or lack of access to health providers.[94]
- To effectively expand integrated care settings, pediatric primary care providers will need the support of child psychiatrists, nurse prescribers, and other licensed mental health clinicians. School-based clinics can also use the consultation models described in the Ideal Service Array and Appendix B, as well as telemedicine supports, to help extend access to mental health treatment. Linking Family Partners to these services also assists families of children and youth with more complex mental health issues to help them navigate "the system."
- To ensure the maximization of funding in support of health care delivery, greater assistance is needed to understand how to enroll as a provider, bill, and get reimbursed for Medicaid and other insurance at school-based clinics.

Component 2: Specialty Behavioral Health Care

SLR-2: As more children, youth, and families with mild to moderate mental health conditions are served in integrated care settings, including school-based clinics, the roles of specialty behavioral health providers must be reframed to offer more intensive services and to serve the population of children and youth with moderate to severe mental health conditions.

[94] Mathematica Policy Research. (2017, June 27). *Bridging the gap: Identifying and addressing social determinants of health*. Retrieved from https://mathematica-mpr.com/news/bridging-the-gap-identifying-and-addressing-social-determinants-of-health

- Office-based, evidenced-based practices can be very effective for children and youth with moderate to severe issues.
- For children and youth with the most severe needs, providers will need to be part of multi-disciplinary teams to provide rehabilitation and intensive, evidence-based practices in home and community-based settings.
- Providers who desire to serve children and youth with mild to moderate needs would be optimally deployed as part of integrated practice settings.

SLR-3: Strengthen the school liaison function within schools that have them and work to expand liaison capacity more broadly. Efforts should focus on schools and school districts that have adopted and actively promote a developmentally focused social-emotional learning framework. MHA of Greater Houston's Center for School Behavioral Health may also be able to actively promote the liaison model.

- Organizations such as Communities In Schools (CIS), ProUnitas, and Community Youth Services (CYS) are currently serving this type of role in many Harris County schools. Many of these organizations also help children, youth, and families address a broader range of basic and social needs, improving linkages to a broader array of needed supports.
- If a child or youth has a behavioral health problem that goes beyond available on-site resources, the school liaison function can help determine needs and link the student and family to off-site providers. The school liaison can work on identifying strategies to connect the student and family to Medicaid when eligible.

Component 3: Rehabilitation and Intensive Services

SLR-4: Build capacity for the delivery of intensive services by encouraging providers to offer Medicaid TCM and Mental Health Rehabilitation Services, and by tapping into the $2 million that will be available under the grant funds associated with SB 74 (HHSC Rider 172) to expand capacity to provide TCM and rehabilitative services to children and youth in foster care who have intensive needs. The Health and Human Services Commission (HHSC), in collaboration with the Department of Family and Protective Services (DFPS), must establish the initiative no later than November 1, 2017.

- This legislation could assist additional specialty behavioral health providers in Harris County with becoming credentialed to provide rehabilitative and TCM services.
- The focus of the grant program under HHSC Rider 172 is to expand the capacity of intensive home and community-based services for children and youth in foster care who have high needs. Existing TCM and rehabilitation providers will likely be best positioned to develop these supports, as the intensive levels of care are the most resource-intensive and difficult to establish.

- Funds may only be used to pay for costs directly related to developing, implementing, and expanding capacity, so it will be important for providers to work closely with STAR Health to ensure that their models will qualify for ongoing funding.
- There is also a broader need to traini specialty behavioral health providers on Medicaid billing requirements. Many community-based specialty mental health providers are not accessing Medicaid to fund their services for children and youth in poverty, and some may be willing to consider becoming rehabilitation and TCM providers if they did. Resources are available to support providers interested in expanding capacity by accessing Medicaid funding. For example, MMHPI helped develop a technical assistance resource in collaboration with LifeWorks, Impact Austin, and the St. David's Foundation: *Community Report: Strategies to Obtain Medicaid and Other Third-Party Mental Health Services Reimbursement*.[95]

SLR-5: Develop a local, multi-year initiative to build capacity for intensive, evidence-based home and community-based services for the 4,000 children and youth with the most severe needs who are at highest risk for out-of-home and out-of-school placement.

- Medicaid currently covers a minimum level of intensive supports, but evidence-based models are typically more intensive. Because they tend also to be of limited duration and more effective (see Appendix B for more information), they have the added potential to be cost effective.
- Given the possible expansion of intensive services for children and youth in the foster care system, local funders (public and private) may be able to partner with rehabilitation providers to expand capacity to simultaneously add on evidence-based practices. It will likely take several years to demonstrate the cost effectiveness of these approaches, so the provider and local funders will need to commit to a multi-year initiative with a strong independent evaluation component.
- Because Medicaid is a critical partner, Medicaid MCOs will need to participate in planning to ensure that these programs target the highest priority needs and to potentially develop value-based purchasing arrangements to support service delivery. It may also be possible to access additional Medicaid support for any cost-effective alternative services that can be approved on a case-specific basis.

SLR-6: First episode psychosis (FEP) treatment programs must be incorporated into the child and youth delivery system, not delayed until youth become 18 years old and transition to the adult system of care. Currently, the Harris Center's small Coordinated Specialty Care program for first episode psychosis has only served adults, but state-level policy changes now allow the program to serve youth under age 18 as well as Medicaid-eligible youth. However, the majority

[95] Meadows Mental Health Policy Institute. (June 2017). *Community report: Strategies to obtain Medicaid and other third party mental health services reimbursement*.. Dallas, TX: MMHPI.

of youth and young adults experiencing FEP likely have commercial insurance, as incidence of psychosis is not strongly correlated with poverty.

- Early identification and treatment of psychosis can help youth and families build skills to mitigate the impact of psychosis and learn to manage the illness, stay on a healthy developmental path, and avoid the deterioration in functioning that comes with untreated (or inadequately treated) psychosis.
- Expanding access to the Harris Center program for children and youth with Medicaid would be a good next step.
- Expansion of the model to other providers, perhaps building on the program's current partnership with UTHealth, may help reach a broader range of youth in need.

Component 4: Crisis Care Continuum

SLR-7: Begin to align child welfare, juvenile justice, and mental health crisis response resources, identify opportunities to expand the available crisis respite service array, and make this array of services available across systems. As noted in the report findings, many strong crisis programs exist, but they typically serve children and youth only within their own "silo" and do not coordinate systematically with other efforts. If better aligned, existing resources have the capacity to serve more children and youth and provide better options during a crisis. However, until additional intensive, evidence-based care resources are available, the crisis system will continue to be over-burdened and improvement efforts will be unlikely to substantially curb over-reliance on inpatient and crisis care.

- In an Ideal System of Care, there would be an organized county-wide "crisis system" that can respond across the various delivery systems, geographies, and system requirements to improve coordination of care, access to resources, and communication strategies. Development of joint initiatives such as the Dual Status Youth Initiative should also be pursued (see Appendix B for information on these best practices).
- Note that the crisis array should ideally be jointly funded across all payers (e.g., state, Medicaid, local, private, and MCOs) to better coordinate access, avoid duplication, and identify gaps rather than having each funding stream supporting a separate crisis care continuum that functions more independently. The 2015 Sunset Advisory Commission report on HHSC reforms prioritized such cross-payer crisis coordination.[96]
- This alignment is especially important for children and youth involved in TRIAD's Community Resource Coordination Groups and the Dual Status Youth Initiative designed to coordinate care across the juvenile justice and child welfare systems. With TRIAD, there is already an effort underway to provide crisis assessment, triage, and crisis respite. The lessons learned from this effort should form the basis of future planning.

[96] Sunset Advisory Commission (2015, February). *Report to the 84th Legislature* (see page 15 and 42). Retrieved from https://www.sunset.texas.gov/reviews-and-reports/agencies/health-and-human-services-commission-hhsc

- It may also be possible to build on the existing TRIAD and the Dual Status Youth initiative to establish more cross-system efforts to coordinate care. These initiatives have had some early successes. The Dual Status Youth Initiative recently hired its executive director and has begun to develop a back-bone agency to facilitate system alignment, with the goal of developing robust and effective supports for youth involved in both systems.

SLR-8: Make better use of existing psychiatric inpatient bed capacity by exploring options for purchasing capacity in underutilized facilities to supplement the overstretched public resources of the Harris County Psychiatric Center, as well as to expand access into the outlying geographic areas of Harris County. The ultimate goal would be to integrate inpatient psychiatric care into broader health systems and increase access for children and youth in poverty. The primary barrier to inpatient care is access to current bed capacity by children and youth in poverty and those with complex needs, especially co-morbid intellectual or developmental disabilities. It may be necessary to convene inpatient psychiatric providers for children and youth and Medicaid MCOs to identify strategies for taking advantage of this underused capacity.

SLR-9: De-emphasize residential placement, and, when used, make sure residential "treatment" provides brief, intensive, family-based services as close to home as possible.

- Existing forums addressing the needs of high-risk children and youth, such as the Dual Status Youth Initiative, should incorporate this principle into their ongoing planning.
- The development of intensive, evidence-based home and community-based care should be incorporated into a multi-year, cross-agency plan to reduce the use of residential placements, starting with children and youth who are able to obtain care safely in their current living arrangements. This effort can only succeed if intensive, evidence-based home and community-based care options are available, including treatment foster care.
- Harris County Protective Services (HCPS) and Harris County Juvenile Probation Department (HCJPD) should consider the development of a cross-agency work group to review current financing of residential treatment and how Medicaid and other resources might be used to develop evidence-based, intensive home and community-based treatment alternatives. If a financing strategy is developed, HCPS and HCJPD could issue a request for services to provider organizations to develop targeted capacity for transitioning youth from out-of-home placements to evidence-based, intensive home and community-based services. Youth at high risk of out-of-home placements could also benefit from these alternative services
- The cross-agency work group should involve current residential treatment providers to assess their interest and capacity to expand their treatment array to include more intensive home and community-based services, as well as treatment foster care and small family-based residential options closer to where children and youth live.

- The work group should also prioritize the use of evidence-based training and support for foster parents and enhanced treatment foster care options to address the needs of foster children and youth placed in inpatient services. A promising example, Keeping Foster and Kin Parents Supported and Trained (KEEP), was designed by the developers of the Treatment Foster Care Oregon (TFCO) model. KEEP is a skills development program for foster parents and kinship parents of children from birth to age five and teenagers (KEEP SAFE). Appendix B provides more information on these and other models.

Appendix A: List of Participants

Name	Title	Organization
Randy Brooks, SPHR, SHRM SCP	Chief Human Resources Officer	Arrow Child and Family Ministries
Scott Lundy	President and Chief Operating Officer	Arrow Child and Family Ministries
Jay Pruett	Chief Strategic Officer	Arrow Child and Family Ministries
Debi Tengler	National Relations Officer	Arrow Child and Family Ministries
Kelly Walker	Continuous Quality Improvement	Arrow Child and Family Ministries
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Dr. Corie Coldwell	Statewide Child/Adolescent Psychologist	Beacon Health Options
Daniel Ramirez	Provider Partnerships Manager	Beacon Health Options/Community Health Choice
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Asim Shah, MD	Chief of Psychiatry / Executive Vice Chair for Psychiatry and Behavioral Sciences	Ben Taub Hospital/Harris Health System / Baylor College of Medicine
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Robert Woods, MEd	Executive Director	Center for Success and Independence
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Juliet Stipeche	Director of Education, Mayor's Office	City of Houston
Leslie Bourne	Executive Director	Covenant House
Victor Hay	Director of Residential and Community Services	Covenant House
Winnie Ombese	Clinical Services Director	Covenant House
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Lanis McWilliams	Grant Manager	Communities in Schools of Houston, Inc.

Name	Title	Organization
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Jennifer Battle	Program Director, Crisis Line	The Harris Center for Mental Health and IDD
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Name	Title	Organization
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Takoya Jackson	Community Resource Coordination Group Coordinator	Harris County Protective Services for Children and Adults
Joel Levine, MA, LCSW	Executive Director	Harris County Protective Services for Children and Adults
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Name	Title	Organization
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Reverend Carrie Leader	Volunteer Coordinator	Houston: reVision
Charles Rotramel	Chief Executive Officer	Houston: reVision
Reverend Greg Taylor	Pastor and Community Architect	Houston: reVision
Rick Torres	Outreach Worker	Houston: reVision
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Ana Perez, LCSW	District Behavior Specialist	Pasadena Independent School District
Adeeb Barqawi	Founder and Chief Executive Officer	ProUnitas

Name	Title	Organization
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Nancy Correa, MPH	Community Outreach	Texas Children's Hospital
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Laura Hardy	Director of Ambulatory Care	Texas Children's Hospital
Kirti Saxena, MD	Director, Pediatric Bipolar Disorders Program	Texas Children's Hospital
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Willie Durham, MEd	Program Director	Youth Advocate Program
Talvin Paul	Southwest Vice President	Youth Advocate Program

Appendix B: Mental Health Best Practices for Children, Youth, and Families

Overarching Framework: Quality Improvement and Health Care

In 2001, the Institutes of Medicine (IOM) fundamentally changed the national dialogue regarding the design of health care systems through the landmark publication of their "Crossing the Quality Chasm"[97] report, which became the first in a series of subsequent IOM publications that have helped shape understanding of the need for a fundamental shift in operational priorities and health care delivery organization commitment to ongoing quality improvement. In many ways, the premise of the report is quite simple: the health care industry must move from a traditional command and control model to a continuous quality improvement model. These are lessons that the U.S. manufacturing sector had to learn and apply in the 1980s and 1990s, building on the work of pioneers such as Edward Deming and leading to a variety of standards and frameworks now widely used across industry (e.g., ISO 9001:2008[98]).

The "Quality Chasm" report and subsequent IOM reports built upon prior reports in the late 1990s demonstrating the serious quality gaps in the U.S. health care system, many associated with the shift in treatment to greater numbers of chronic illnesses (vs. acute illnesses), an important subset of which includes addictions, serious mental illnesses for adults, and serious emotional disturbances for children and youth. The series focuses on applying the broader framework of performance and quality improvement to the delivery of health care services. The report argues convincingly that these quality gaps cost the U.S. upwards of $750 billion in 2009 in poor, inefficient, wasteful, and ineffective care. The need for systematic change is clear and stark.

In 2006, the IOM focused its attention on mental health (MH) and substance use disorders (SUD),[99] documenting severe system level quality gaps and describing a framework for improving them. The resulting report was explicit in its findings, both in demonstrating the existence of effective treatment and the woeful inadequacy of most MH/SUD delivery systems in effectively promoting it:

> Effective treatments exist and continually improve. However, as with general health care, deficiencies in care delivery prevent many from receiving appropriate treatments. That situation has serious consequences – for people who have the conditions; for their

[97] Institute of Medicine. (2001). *Crossing the quality chasm: A new health system for the 21st Century*. Washington, DC: The National Academies Press.

[98] For example, see: http://www.iso.org/iso/06_implementation_guidance.pdf

[99] Institute of Medicine. (2006). *Improving the quality of health care for mental and substance-use conditions*. Washington, DC: The National Academies Press.

> loved ones; for the workplace; for the education, welfare, and justice systems; and for the nation as a whole.

The report notes that the challenges facing MH/SUD systems are in many ways more severe than those facing the broader health system due to "a number of distinctive characteristics, such as the greater use of coercion into treatment, separate care delivery systems, a less developed quality measurement infrastructure, and a differently structured marketplace."[100] Nonetheless, the IOM recommended clearly that the advised shift from "command and control" models of quality assurance to customer-oriented quality improvement was not only necessary but possible within behavioral health systems, with similar capacity as in health care to produce better outcomes with lower costs.

The implications of the IOM's recommended shift from command and control models to continuous quality improvement is not just about improving the quality of care delivery; it is also essential to controlling costs, as documented in one of the latest reports in the Quality Chasm series.[101] The report states the matter in the series' characteristically direct manner, as quoted below:

> *Consider the impact on American services if other industries routinely operated in the same manner as many aspects of health care:*
>
> - *If banking were like health care, automated teller machine (ATM) transactions would take not seconds but perhaps days or longer as a result of unavailable or misplaced records.*
> - *If home building were like health care, carpenters, electricians, and plumbers each would work with different blueprints, with very little coordination.*
> - *If shopping were like health care, product prices would not be posted, and the price charged would vary widely within the same store, depending on the source of payment.*
> - *If automobile manufacturing were like health care, warranties for cars that require manufacturers to pay for defects would not exist. As a result, few factories would seek to monitor and improve production line performance and product quality.*
> - *If airline travel were like health care, each pilot would be free to design his or her own preflight safety check, or not to perform one at all.*

[100] Institute of Medicine. (2006). *Improving the quality of health care for mental and substance-use conditions*. Washington, DC: The National Academies Press.

[101] Institute of Medicine. (2012). *Best care at lower cost: The path to continuously learning health care in America*. Washington, DC: The National Academies Press.

The point is not that health care can or should function in precisely the same way as all other sectors of people's lives; each is very different from the others, and every industry has room for improvement. Yet if some of the transferable best practices from banking, construction, retailing, automobile manufacturing, flight safety, public utilities, and personal services were adopted as standard best practices in health care, the nation could see patient care in which:

- *records were immediately updated and available for use by patients*
- *care delivered was care proven reliable at the core and tailored at the margins*
- *patient and family needs and preferences were a central part of the decision process*
- *all team members were fully informed in real time about each other's activities*
- *prices and total costs were fully transparent to all participants*
- *payment incentives were structured to reward outcomes and value, not volume errors were promptly identified and corrected*
- *and results were routinely captured and used for continuous improvement.*

Defining Best Practices

There are hundreds of evidence-based practices available for mental health (MH) and substance use disorder (SUD) treatment, and the most definitive listing of these practices is provided by the federal Substance Abuse and Mental Health Services Administration (SAMHSA) through the National Registry for Evidence-based Programs and Practices (NREPP).[102] The NREPP includes MH and SUD treatment approaches ranging from prevention through treatment. While the NREPP is, in its own description, "not exhaustive," it is the most complete source on evidence-based practices available. The NREPP refers to all practices in the registry as "evidence-based," using the following definition: "Approaches to prevention or treatment that are based in theory and have undergone scientific evaluation." The NREPP then rates each program and practice on a multi-point scale across multiple domains to characterize the quality of the evidence underlying the intervention. Thus, many approaches formerly termed "promising" are now included in the NREPP, albeit with lower scores in some domains.

Successful best-practice promotion also requires understanding of the real-world limitations of each specific best practice, so that the understandable stakeholder concerns that emerge can be anticipated and incorporated into the best-practice promotion effort. This process is sometimes called "using practice-based evidence" to inform implementation and is a core feature of continuous quality improvement. The reasons for stakeholder concerns at the "front line" implementation level are well documented and significant.[103] One major issue is that the

[102] The NREPP's searchable database can be found at: http://www.nrepp.samhsa.gov/

[103] Waddell, C., & Godderis, R. (2005). Rethinking evidence-based practice for children's mental health. *Evidence-Based Mental Health, 8*, 60–62.

literature prioritizes randomized clinical trials (RCTs) that address efficacy in controlled research settings, whereas practitioners require research evidence on effectiveness in typical practice settings. This "efficacy-effectiveness gap" was clearly defined in the 1999 U.S. Surgeon General's report on mental health services in America[104] and centers on the much more complex realities that practitioners face in the field. Toward that end, research that addresses the complexities of typical practice settings (e.g., staffing variability due to vacancies, turnover, and differential training) is lacking, and the emphasis on RCTs is not very amenable to exploration of clinically relevant constructs like engagement and therapeutic relationships. Related uncertainties about implementing best practices include a lack of clarity about the interactions of development and ecological context with the interventions. While it is generally accepted that development involves continuous and dynamic interactions between individuals and their environments over time, and is inextricably linked to natural contexts, the efficacy research literature is largely silent on these relationships.[105] Because of this, practitioners must in many cases extrapolate from the existing research evidence.

One of the biggest concerns about best practices – and one that is certainly highly relevant for a state as diverse as Texas – involves application of practices to individuals and families from diverse cultural and linguistic backgrounds. There are inherent limitations in the research base regarding diversity that often lead providers, people receiving services, and other stakeholders to question the extent to which the research evidence supporting best practices is applicable to their communities and the situations they encounter daily. Further, there is wide consensus in the literature that too little research has been carried out to document the differential efficacy of best practices across culture.[106] Given that few best practices have documented their results in sufficient detail to determine their effectiveness cross-culturally, it makes sense that best practices be implemented within the context of ongoing evaluation and quality improvement efforts to determine whether they are effective – or more accurately, how they might need to be adapted to be maximally effective – for the local populations being served. The California Institute for Mental Health has compiled an analysis regarding the cross-cultural applications of

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[104] U.S. Surgeon General. (1999). *Mental health: A report of the Surgeon General*. Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institutes of Health, National Institute of Mental Health.

[105] Hoagwood, K., Burns, B. J., Kiser, L., Ringeisen, H, & Schoenwald, S. K. (2001). Evidence-based practice in child and adolescent mental health services. *Psychiatric Services*, 52, 1179–89.

[106] U.S. Surgeon General. (2001). *Mental health: Culture, race, and ethnicity: A supplement to Mental health: A report of the Surgeon General*. Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institutes of Health, National Institute of Mental Health.

major best practices.[107] There is also increasing recognition of best practices for refugee and immigrant communities.[108]

It is also, therefore, critical to ground best-practice promotion in specific standards for culturally and linguistically appropriate care. The most well-known national standards related to health disparities focus on services for members of ethnic minority groups. The National Standards for Cultural and Linguistically Appropriate Services in Health Care (CLAS Standards)[109] were adopted in 2001 by the U.S. Department of Health and Human Services' (HHS) Office of Minority Health (OMH) with the goals of "equitable and effective treatment in a culturally and linguistically appropriate manner" and "as a means to correct inequities that currently exist in the provision of health services and to make these services more responsive to the individual needs of all patients/consumers" in order "to contribute to the elimination of racial and ethnic health disparities and to improve the health of all Americans." They include 14 standards addressing the broad themes of culturally competent care, language access, and organizational supports for cultural competence. A range of standards for specific populations is also available,[110] but the CLAS standards are most widely recognized in the broader health field. In mental health, a set of SAMHSA standards for African-American, Asian-American / Pacific Islander, Hispanic / Latino, and Native-American / American-Indian groups is also available.[111] Guidance for multicultural applications is also available.[112]

Major Evidence-Based Practices for Children, Youth, and Families

This section describes evidence-based practices (EBPs) at five levels: prevention approaches, integrated primary care, school-based mental health services, office and community-based interventions, and out-of-home treatment options. In addition, it attempts to differentiate approaches by age group, where applicable.

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[107] See http://www.cimh.org/Services/Multicultural/ACCP-Project.aspx

[108] American Psychological Association, Presidential Task Force on Immigration. (2012). *Crossroads: The psychology of immigration in the new century*. Retrieved from http://www.apa.org/topics/immigration/immigration-report.pdf

[109] U.S. Department of Health and Human Services (USDHHS), Office of Minority Health. (2001, March). *National Standards for Cultural and Linguistically Appropriate Services in Health Care*. Washington, DC: Author. Retrieved from https://minorityhealth.hhs.gov/assets/pdf/checked/finalreport.pdf

[110] The New York City Department of Health and Mental Hygiene has compiled a helpful listing of various sources that are readily accessible: http://www.nyc.gov/html/doh/downloads/pdf/qi/qi-ccpriority-resources.pdf

[111] USDHHS, Substance Abuse and Mental Health Services Administration. (2001). Cultural competence standards in managed care mental health services: Four underserved/underrepresented racial/ethnic groups. Rockville, MD: Author.

[112] See http://www.cimh.org/Services/Multicultural.aspx for the overall site and http://www.cimh.org/Services/Multicultural/ACCP-Project.aspx for specific best practices demonstrated in California.

Prevention

Many EBPs are available to increase parenting skills, with an emphasis on early childhood (up to age 12). These include the following:

- **The Incredible Years:**[113] The Incredible Years program focuses on preventing conduct problems from developing and intervening early in the onset of these behaviors in children, targeting infancy to school-age children. This is accomplished through an interaction of three programs aimed at improving the skills of the child (in the areas of academic and social achievement), parent (to increase communication and nurturing approaches), and teacher (promoting effective classroom management and teaching of social skills). This curriculum particularly targets risk factors for conduct disorder and promotes a positive environment for the child both in the home and at school.
- **Positive Parenting Program (Triple-P):**[114] This program is aimed at teaching parents strategies to prevent emotional, behavioral, and developmental problems. It includes five levels of varying intensity (from the dissemination of printed materials to 8–10-session parenting programs and more enhanced interventions for families experiencing higher levels of relational stress). Using social learning, cognitive-behavioral, and developmental theory, in combination with studies of risk and protective factors for these problems, Triple-P aims to increase the knowledge and confidence of parents in dealing with their children's behavioral issues.

Integrated Primary Care

Integrated-behavioral health programs provide the opportunities to improve outcomes and promote culture of medical care to include both physical and behavioral health in treatment approaches. Annual well-child care visits with primary care providers provide an opportunity for children and youth to access both physical and behavioral healthcare, especially within the comprehensive setting of integrated primary care settings. Collaborative care programs where primary care providers, care managers, and behavioral health specialists work as a team to provide patient care can have a positive impact. A 2015 meta-analysis in the *Journal of the American Medical Association (JAMA) Pediatrics* indicated that "the probability was 66% that a randomly selected youth would have a better outcome after receiving integrated medical-behavioral treatment than a randomly selected youth after receiving usual care." [115]

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[113] Webster-Stratton, C. (1984). A randomized trial of two parent-training programs for families with conduct-disordered children. *Journal of Consulting and Clinical Psychology, 52(4),* 666–678.

[114] Sanders, M.R., Markie-Dadds, C., Tully, L.A., & Bor, W. (2000). The Triple-P positive parenting program: A comparison of enhanced, standard, and self-directed behavioral family intervention for parents of children with early onset conduct problems*. Journal of Consulting and Clinical Psychology, 68 (4),* 624–640.

[115] Asarnow, J. R., Rozenman, M., Jessica Wiblin, J., Zeltzer, L. (2015, October). Integrated medical-behavioral care compared with usual primary care for child and adolescent behavioral health: A meta-analysis. *JAMA Pediatrics*. 169(10): 929–937. Retrieved from http://jamanetwork.com/journals/jamapediatrics/fullarticle/2422331

A Meadows Mental Health Policy Institute 2016 report[116] proposes that integrated behavioral health programs should include the following seven core components:

- Integrated organizational culture,
- Population health management,
- Structured use of a team approach,
- IBH staff competencies,
- Universal screening for the most prevalent primary health and behavioral health conditions,
- Integrated person-centered treatment planning, and
- Systematic use of evidence-based clinical models.

Effective integrated-behavioral health programs utilize evidence-based treatment interventions to achieve better outcomes and more cost-effective care. They track primary health and behavioral health outcomes and use health information technology to manage population outcomes in order to use interventions that ensure quality care.

Behavioral health integration in primary care settings increases behavioral health services for children and youth with mild to moderate conditions. About 75% of children and youth with psychiatric disorders could be seen in the pediatrician's office.[117] But these visitations generally have significant limitations. Pediatricians typically do not deliver mental health services due to limited time during each patient visit, minimal training and knowledge of behavioral health disorders, gaps in knowledge of local resources, and lack of knowledge about or limited access to behavioral health specialists.[118] However, a fully scaled implementation example suggests that two thirds of behavioral health care could be provided in pediatric settings with the right integration supports.[119]

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[116] Meadows Mental Health Policy Institute (2016, June). *Best practices in integrated behavioral health: Identifying and implementing core components.* Retrieved from http://texasstateofmind.org/wp-content/uploads/2016/09/Meadows_IBHreport_FINAL_9.8.16.pdf

[117] American Academy of Child and Adolescent Psychiatry. (2012, June). *Best priniciples for integration of child psychiatry in the pediatric health home*. Retrieved from http://www.aacap.org/App_Themes/AACAP/docs/clinical_practice_center/systems_of_care/best_principles_for_integration_of_child_psychiatry_into_the_pediatric_health_home_2012.pdf

[118] American Academy of Child and Adolescent Psychiatry. (2012, June). *Best priniciples for integration of child psychiatry in the pediatric health home*. Retrived from http://www.aacap.org/App_Themes/AACAP/docs/clinical_practice_center/systems_of_care/best_principles_for_integration_of_child_psychiatry_into_the_pediatric_health_home_2012.pdf

[119] Straus, J. H., & Sarvet, B. (2014, December). Behavioral health care for children: The Massachusetts Child Psychiatry Access Project. *Health Affairs*, 33(12), 2153–2161.

Behavioral health integration in primary care settings also aligns with the concept of the "medical home." The pediatric health home – sometimes called the "pediatric medical home" – refers, according to the American Academy of Pediatrics (AAP), to "delivery of advanced primary care with the goal of addressing and integrating high quality health promotion, acute care, and chronic condition management in a planned, coordinated, and family-centered manner."[120]

Providing additional perspective, the American Academy of Child and Adolescent Psychiatry (AACAP) has developed "Best Principles for Integration of Child Psychiatry into the Pediatric Health Home." AACAP identifies key components of the behavioral health integration framework within the pediatric medical home.[121] These components include the following strategies:[122]

- Screening and early detection of behavioral health problems;
- Triage/referral to appropriate behavioral health treatments;
- Timely access to child and adolescent psychiatry consultations that include indirect/curbside consultation as well as face-to-face consultation with the patient and family by the child and adolescent psychiatrist;
- Access to child psychiatry specialty treatment services for those who have moderate to severe psychiatric disorders;
- Care coordination that assists in delivery of mental health services and strengthens collaboration with the health care team, parents, family, and other child-serving agencies; and
- Monitoring of outcomes at both an individual and delivery-system level.

Examples of integrated primary care models include the following:

- **The Massachusetts Child Psychiatry Access Project** (MCPAP) offers one promising approach to integrated care. Established in 2004, MCPAP is a national leader and model that has inspired many other states to create such programs. It supports over 95% of the pediatric primary care providers in Massachusetts. MCPAP has six regional behavioral health consultation hubs, each comprising a child-psychiatrist, a licensed

[120] American Academy of Pediatrics. (2017). Medical home. Retrieved from https://www.aap.org/en-us/professional-resources/practice-transformation/medicalhome/Pages/home.aspx

[121] American Academy of Child and Adolescent Psychiatry. (2012, June). *Best priniciples for integration of child psychiatry in the pediatric health home*. Retrived from http://www.aacap.org/App_Themes/AACAP/docs/clinical_practice_center/systems_of_care/best_principles_for_integration_of_child_psychiatry_into_the_pediatric_health_home_2012.pdf

[122] American Academy of Child and Adolescent Psychiatry. (2012, June). *Best priniciples for integration of child psychiatry in the pediatric health home*. Retrived from http://www.aacap.org/App_Themes/AACAP/docs/clinical_practice_center/systems_of_care/best_principles_for_integration_of_child_psychiatry_into_the_pediatric_health_home_2012.pdf

therapist, and a care coordinator. Each hub also operates a dedicated hotline that can include the following services: timely over-the-phone clinical consultation, expedited face-to-face psychiatric consultation, care coordination for referrals to community behavioral health providers, and ongoing professional education designed for primary care providers (PCP). In 2014, following a MCPAP consultation, primary care providers reported managing 67% of the types of problems that they typically would have referred to a child psychiatrist before they enrolled in the program. The MCPAP model was so instrumental in providing accessible behavioral health care for children and youth that the Massachusetts Child Psychiatry Access Project expanded to develop MCPAP for Moms. Created in 2014, MCPAP for Moms is a collaborative model that involves obstetricians, internists, family physicians, and psychiatrists. Its mission is to promote maternal and child health for pregnant and postpartum women for up to one year after delivery to prevent, identify, and manage mental health and substance use.[123]

- **Seattle Children's Partnership Access Line (PAL)** is another leading model of behavioral healthcare integration into primary care for children and youth. PAL is a telephone-based mental health consultation system that provides services to Washington and Wyoming. It is available to primary care physicians, nurse practitioners, and physician assistants. Users of this model obtain a child mental healthcare guide and advice from a child psychiatrist that includes a sample letter with a summary of the consult conversation. In addition, the PAL program includes a social worker who can provide a list of local resources tailored to an individual patient and his or her insurance. If a child needs to be evaluated in-person, PAL helps link families to providers in their respective communities. PAL can also assist with providing locations in which telemedicine appointment are available. The PAL team also provides educational presentations to primary care providers to increase their ability to manage behavioral health issues in the primary care setting. Primary care providers reported that in 87% of their consultation calls, they usually received new psychosocial treatment advice. They also reported that children with a history of foster care placements experienced a 132% increase in outpatient mental health visits after the consultation call. Primary care provider feedback surveys also reported "uniformly positive satisfaction" with PAL.[124] In 2017, following the implementation of PAL, antipsychotic prescriptions for children enrolled in Washington State's Medicaid program decreased by nearly half. [125]

[123] Straus, J. H., & Sarvet, B. (2014, December). Behavioral health care for children: The Massachusetts Child Psychiatry Access Project. *Health Affairs*, 33(12), 2153–2161.

[124] Hilt, R. J., Romaire, M. A., McDonell, M. G., Sears, J. M., Krupski, A., Thompson, J. N., & Trupin, E. W. (2013, February). The partnership access line evaluating a child psychiatry consult program in Washington State. *JAMA Pediatrics*, 167(2), 162–168.

[125] Barclay, R. P., Penfold, R. B., Sullivan, D., Boydston, L., Wignall, J., & Hilt, R. J. (2017, April). Decrease in statewide antipsychotic prescribing after implementation of child and adolescent psychiatry consultation services. *Health Services Research*, 52(2), 561–578.

- A promising approach in Texas is provided by Dallas Children's Health, formerly Children's Medical Center, provides a promising approach to behavioral health care for children and youth. In 2013, it began an integrated behavioral health program within its pediatric outpatient clinics. In July 2015, the Integrated Behavioral Health Care Management program was fully implemented with care managers covering all 18 Children's Health Pediatric Group clinics. As of January 2017, the team comprised 10 licensed master's level behavioral health clinicians (LPCs, LCSWs, and LMFTs) and two clinical psychologists. The behavioral health team provides consultation and direct treatment to patients who obtain their care from primary care providers within these clinics. Behavioral health screening tools for monitoring depression are administered and tracked with every well-child visit, starting at age 11. Implementation of these tools has contributed to studies that have shown excellent results, such as more than a 50% reduction in symptoms of depression. One strength of the program includes a shared electronic medical record system that offers both primary care and specialty behavioral health providers' access to a patient's records, enabling better care coordination. In addition, members of the behavioral health team are co-located with their primary care colleagues in the pediatric clinic setting, increasing accessibility to behavioral health care. The behavioral health team conducts educational presentations for primary care providers that include topics such as depression, attention-deficit hyperactivity disorder, and parenting skills. Moreover, the behavioral health team meets internally every two weeks for formal case discussions and treatment planning. Using telemedicine for delivery of primary care services to children and youth in local schools also increases access.
- The **Rees-Jones Center for Foster Care Excellence**, located at Children's Health in Dallas is another best-practice program. The Rees-Jones Center for Foster Care Excellence is a specialized integrated health care model that addresses the needs of children and youth in foster care, who often need additional supports. A promising practice includes structured use of a team approach with a care team that comprises primary care and behavioral health providers as well as a nurse coordinator and a Child Protective Services (CPS) liaison. All members of the care team are co-located and fully collaborative; they provide evidence-based, trauma-informed primary care and therapeutic strategies. Center staff described the nurse coordinator and CPS liaison positions, specifically, as central and critical to the model. Other core integrated behavioral health components of the Center are the use of a shared electronic medical records system, which allows all team members to access a child or youth's record and document clinical observations and recommendations in one place; implementation of daily and weekly formal case discussions and treatment planning; and regular staff trainings.

School-Based Mental Health Services

Prevention efforts shift as children enter school (ages 6–12) to increase positive social interactions, decrease aggression and bullying, and increase academic motivation. The education and mental health systems in the United States have a long history of providing mental health services to children. With the passage of the Education of All Handicapped Children Act in 1975 (reauthorized in 1990 as the Individuals with Disabilities Act, or IDEA), education systems were given greater responsibility to meet the mental health needs of students with emotional disturbances.[126] Schools provide a natural setting for mental health services, including prevention.[127] In fact, studies show that, for many children, schools seem to be their primary mental health system (one finding showed that for children who receive any type of mental health service, over 70% receive the service from their school).[128] School-wide prevention and services that promote behavioral health reduce violence and create a positive school climate benefit all students.[129]

School-based behavioral health and prevention are best be implemented through a public health model approach.[130] The following model could provide a framework that spans the broad range of age groups and problems seen in public school systems and could support the following recommendations for enhancing school-based mental health services models:

- Implement school-wide prevention programs and acknowledge that this will require new roles for community workers and school staff.

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[126] Pumariega, A. J., & Vance, H. R. (1999). School-based mental health services: The foundation for systems of care for children's mental health. *Psychology in the Schools*, 36, 371-378. Cited in Kutash, K., Duchnowski, A., & Lynn, N. (2006, April). *School-based mental health: An empirical guide for decision-makers*. Tampa, FL: University of South Florida, The Louis de la Parte Florida Mental Health Institute, Department of Child & Family Studies, Research and Training Center for Children's Mental Health.

[127] Lever, N., Stephan, S., Castle, M., Bernstein, L., Connors, E., Sharma, R., & Blizzard, A. (2015). *Community-partnered school behavioral health: State of the field in Maryland*. Baltimore, MD: Center for School Mental Health. Retrieved from http://csmh.umaryland.edu/media/SOM/Microsites/CSMH/docs/Resources/Briefs/FINALCP.SBHReport3.5.15_2.pdf

Adelman, H.S., & Taylor, L. (2006, March). The current status of mental health in schools: A policy and practice analysis. Los Angeles: UCLA Center. Retrieved from http://files.eric.ed.gov/fulltext/ED501379.pdf

[128] Barrett, S., Eber, L., & Weist, M. (2013). Advancing education effectiveness: Interconnecting school mental health and school-wide positive behavior support. Retrieved from http://www.pbis.org/common/pbisresources/publications/Final-Monograph.pdf

[129] Barrett, S., Eber, L., & Weist, M. (2013). Advancing education effectiveness: Interconnecting school mental health and school-wide positive behavior support. Retrieved from http://www.pbis.org/common/pbisresources/publications/Final-Monograph.pdf

[130] Barrett, S., Eber, L., & Weist, M. (2013). Advancing education effectiveness: Interconnecting school mental health and school-wide positive behavior support. Retrieved from http://www.pbis.org/common/pbisresources/publications/Final-Monograph.pdf

- Improve the educational outcomes of students by using evidence-based and empirically supported selective and indicated prevention programs with particular attention to the academic needs of students with emotional disturbances served in special education

Other sources point out emerging trends and practices in school mental health that highlight successful collaboration between schools, communities, and families.[131] As such, several EBPs build on prevention efforts and provide diverse community-based approaches to addressing mental health needs within a school environment. These include the following:

- **Community-Partnered School Behavioral Health** (CP-SBH) is a framework for supporting student behavioral health along the full prevention-intervention continuum. It brings together community behavioral health providers with schools and families to augment existing school resources in order to provide a more comprehensive array of services (e.g., trauma-informed care, medication management, substance use prevention) within the school building.[132] These partnerships allow schools to expand their behavioral health capacity through enhanced staffing, resources, skills, and knowledge. Comprehensive service provision through CP-SBH can include selective prevention for students identified at risk for behavioral health problems and specialized intervention services such as clinical assessment and treatment. CP-SBH programs share several best-practice policies and procedures for program, including establishing and maintaining effective partnerships; integrating community-partnered school behavioral health into multi-tiered systems of support (universal prevention, targeted prevention, individualized intervention and supports, specialized support for substance use and abuse problems); and utilizing empirically supported treatments. In addition, CP-SBH programs also focus on facilitating family-school-community teaming; collecting, analyzing, and utilizing data; and obtaining, sustaining, and leveraging diverse funding streams.[133] Some of the advantages of this approach include improved access to behavioral health services, reducing the stigma of seeking services, being able to generalize treatment to the child's school environment, and having an impact on educational outcomes.
- **The Interconnected Systems Framework** (ISF) brings together Positive Behavioral Interventions and Supports (PBIS) and school mental health services in a framework that

[131] Weist, M. D., & Murray, M. (2007). Advancing school mental health promotion globally. *Advances in School Mental Health Promotion, Inaugural Issue,* 2-12. doi: http://dx.doi.org/10.1080/1754730X.2008.9715740. Cited in Barrett, S., Eber, L., & Weist, M. (2013). Advancing education effectiveness: Interconnecting school mental health and school-wide positive behavior support. Retrieved from http://www.pbis.org/common/pbisresources/publications/Final-Monograph.pdf

[132] Lever, N., Stephan, S., Castle, M., Bernstein, L., Connors, E., Sharma, R., & Blizzard, A. (2015). Community-partnered school behavioral health: State of the field in Maryland. Baltimore, MD: Center for School Mental Health.

[133] Lever, N., Stephan, S., Castle, M., Bernstein, L., Connors, E., Sharma, R., & Blizzard, A. (2015). Community-partnered school behavioral health: State of the field in Maryland. Baltimore, MD: Center for School Mental Health.

enhances both approaches, extends the array of mental health supports for students and families, and meets the need for an over-arching framework for implementing evidence-based interventions through collaboration between schools and community providers.[134] ISF addresses limitations related to PBIS not having sufficient development in the areas of targeted prevention and specialized intervention for students with more complicated behavioral health concerns. As for school mental health services, ISF targets the lack of structure in the implementation of services (which contributes to high variability in services and school staff not being aware of these services), the poor use of data, and their general disconnection from targeted prevention and specialized intervention services.[135]

- School-wide initiatives such as **Positive Behavioral Interventions and Supports (PBIS)** have significantly decreased aggressive incidents among students and have increased the comfort and confidence of school staff within the school environment. PBIS is a school-based application of a behaviorally based systems approach to enhance the capacity of schools, families, and communities to design effective environments that improve the link between research-validated practices and the environments in which teaching and learning occurs. The model includes primary (school-wide), secondary (classroom), and tertiary (individual) systems of support that improve functioning and outcomes (personal, health, social, family, work, and recreation) for all children and youth by making problem behavior less effective, efficient, and relevant – while making desired behavior more functional. PBIS has three primary features: 1) functional (behavioral) assessment, 2) comprehensive intervention, and 3) lifestyle enhancement.[136] The value of school-wide PBIS integrated with mental health, according to the Bazelon Center, lies in its three-tiered approach. Eighty percent (80%) of students fall into the first tier. For them, school-wide PBIS creates "a social environment that reinforces positive behavior and discourages unacceptable behaviors."[137] A second tier of students benefits from some additional services, often

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[134] Barrett, S., Eber, L., & Weist, M. (2013). Advancing education effectiveness: Interconnecting school mental health and school-wide positive behavior support. Retrieved from http://www.pbis.org/common/pbisresources/publications/Final-Monograph.pdf

[135] Barrett, S., Eber, L., & Weist, M. (2013). Advancing education effectiveness: Interconnecting school mental health and school-wide positive behavior support. Retrieved from http://www.pbis.org/common/pbisresources/publications/Final-Monograph.pdf

[136] Adelman, H. S., & Taylor, L. (1998). Reframing mental health in schools and expanding school reform. *Educational Psychologist*, 33, 135–152.

Horner, R.H., & Carr, E.G. (1997). Behavioral support for students with severe disabilities: Functional assessment and comprehensive intervention. *Journal of Special Education*, 31, 84–104.

Koegel, L.K., Koegel, R.L. & Dunlap, G. (Eds.). (1996). *Positive behavioral support: Including people with difficult behavior in the community*. Baltimore, MD: Paul H. Brookes.

Positive Behavior Interventions and Supports website: http://www.pbis.org/main.htm.

[137] Bazelon Center. (2006). Way to go: School success for children with mental health care needs. Retrieved from http://bazelondev.org/wp-content/uploads/2017/01/Way_to_Go.pdf

provided in coordination with the mental health system. This, the report notes, makes it "easier to identify students who require early intervention to keep problem behaviors from becoming habitual" and to provide that intervention. Finally, tier-three students, who have the most severe behavioral-support needs, can be provided intensive services through partnerships between the school, the mental health system, other child-serving agencies, and family.

- **Multi-tiered System of Supports (MTSS)** is an approach based on a problem-solving model that documents students' performance after changes to classroom instruction have been made as a way to show that additional interventions are needed. It ensures that instruction and interventions are matched to student needs. PBIS is consistent with the principles of MTSS, which include research-based instruction in general education, universal screening to identify additional needs, a team approach to the development and evaluation of alternative interventions, a multi-tiered application of evidence-based instruction determined by identified need, and continuous monitoring of the intervention and parent involvement throughout the process.[138]
  - In Colorado, MTSS is a prevention-based framework for improving the outcomes of all students. It includes a multi-tiered system of supports. The essential components include team-driven shared leadership; data-based problem solving; partnerships with families, schools and communities; layered continuum of supports matched to the student's need from universal to targeted, to intensive; and with instruction, assessment, and intervention that are evidence-based.[139]
  - In California, MTSS organizes its resources and initiatives to address all students' needs. The framework organizes academic, behavioral, and social-emotional learning into an integrated system of supports for all students. It encompasses Response to Instruction and Intervention efforts and PBIS and aligns those supports to better serve each student.[140] The model integrates data collection and assessment to inform decisions.
- **Restorative Justice** is a practice based on an intervention from the criminal justice field that holds people convicted of crimes accountable by having them face the people they have harmed. Within schools, restorative justice programs use a similar process of holding students accountable for their behavior and providing them with opportunities

[138] Positive Behavioral Interventions and Supports OSEP Technical Assistance Center. (n.d). Multi-tiered System of Supports (MTSS) & PBIS. Retrieved from https://www.pbis.org/school/mtss.

[139] Colorado Department of Education. (n.d.). Multi-tiered System of Supports (MTSS). Retrieved from https://www.cde.state.co.us/mtss

[140] California Department of Education. (n.d). Multi-tiered System of Supports (MTSS). Retrieved from http://www.cde.ca.gov/ci/cr/ri/

for making amends and repairing relationships. The overall goals of this practice are to help decrease misbehavior among students and reduce rates of suspensions.[141]

- One example of a model restorative justice program is Restorative Justice for Oakland Youth (RJOY), created in 2005 to support collaboration in developing restorative practices in schools, the juvenile justice system, and the greater Oakland community. RJOY engages families and communities to positively impact school discipline, racial disparities, and school climate in order to interrupt punitive school discipline and justice policies. This program provides education, training, and technical assistance and, since 2010, has focused on helping schools build capacity for their own restorative justice programs.[142] Outcomes for RJOY include the following:
  - During the 2010–11 and 2011–12 school years, 19 Oakland Unified School District schools that received RJOY training reduced the suspension rate of African-American boys by at least 20%.
  - According to state and local data, RJOY's West Oakland Middle School pilot project eliminated expulsions and reduced suspensions by 87%.
  - At Ralph Bunche High School, student suspension rates fell by 74% and referrals for violence dropped by 77% from the 2010–11 school year to the 2012–13 school year.
  - In 2010, the Oakland Unified School District adopted restorative justice as a system-wide alternative to zero-tolerance practices, largely influenced by RJOY.[143]
- The Denver Public Schools Restorative Justice Project also serves as an example of effective implementation of restorative justice programming.[144] Recently, over 1,000 referrals were made for restorative justice services (unduplicated count of 812 students), with almost 180 of these cases being provided in lieu of suspension or for reduced out-of-school suspension as a result of the referral. Students, parents, and teachers all gave strong endorsement for the restorative justice process, noting its fairness and helpfulness with resolving conflicts as well as its influence on students' improvements in listening skills, empathy, anger control, respect, and appropriate

[141] Owen, J., Wettach, J., & Hoffman K.C. (2015). Instead of suspension: Alternative strategies for effective school discipline. Durham, NC: Duke Center for Child and Family Policy and Duke Law School. Retrieved from https://law.duke.edu/childedlaw/schooldiscipline/downloads/instead_of_suspension.pdf

[142] Owen, J., Wettach, J., & Hoffman K.C. (2015). Instead of suspension: Alternative strategies for effective school discipline. Durham, NC: Duke Center for Child and Family Policy and Duke Law School. Retrieved from https://law.duke.edu/childedlaw/schooldiscipline/downloads/instead_of_suspension.pdf

[143] Owen, J., Wettach, J., & Hoffman K.C. (2015). Instead of suspension: Alternative strategies for effective school discipline. Durham, NC: Duke Center for Child and Family Policy and Duke Law School. Retrieved from https://law.duke.edu/childedlaw/schooldiscipline/downloads/instead_of_suspension.pdf

[144] Baker, M.L. (2008). DPS restorative justice project executive summary. Denver, CO: Denver Public Schools.

reparative action planning. All schools showed reductions in out-of-school suspensions and expulsions compared to the prior year's total.[145]

- **The Cognitive Behavioral Intervention for Trauma in Schools (CBITS**) program aims primarily at reducing symptoms of PTSD, depression, and behavioral problems for children and youth in grades 3 through 8. CBITS, which was first used in the 2000–2001 school year, adopts a school-based group and intervention focus. In addition to its goal of reducing some mental health symptoms, CBITs integrates cognitive and behavioral theories of adjustment – as well as cognitive-behavioral techniques such as relaxation, psychoeducation, and trauma narrative development – to improve peer and parent support and improve coping skills, especially among students exposed to significant trauma.[146] Although primarily directed toward younger children, CBITS has been expanded to include high school students who have experienced notable trauma. Structurally, the program uses a mix of session formats, featuring group sessions, individual student sessions, parent psychoeducational sessions, and a teacher educational session. The program is administered by mental health clinicians and claims effectiveness with multicultural populations.[147]

Office, Home, and Community-Based Interventions

There is growing evidence that, in most situations, children and youth can be effectively served in their homes and communities and that community-based treatment programs are often superior to institution-based programs. Studies show that, except for youth with highly complex needs or dangerous behaviors (e.g., fire setting or repeated sexual offenses), programs in community settings are more effective than those in institutional settings, with intensive, community-based, and family-centered interventions being the most promising. Even children and youth with serious emotional disturbances and longstanding difficulties can make and sustain larger gains in functioning when treatment is provided in a family-focused and youth-centered manner within their communities.

The development and dissemination of evidence-based psychosocial interventions for children and youth has rapidly developed in recent years. The ideal system would have treatment protocols offered in clinics, schools, or homes with the objectives of 1) decreasing problematic symptoms and behaviors, 2) increasing youth's and parents' skills and coping, and 3) preventing out-of-home placement. Core components of some of these interventions should also be used as part of an individualized treatment plan for a child of any age who is receiving intensive

[145] Baker, M.L. (2008). DPS restorative justice project executive summary. Denver, CO: Denver Public Schools.

[146] NREPP SAMHSA's National Registry of Evidence-Based Programs and Practices. (n.d.). Cognitive Behavioral Intervention for Trauma in Schools. Retrieved from http://legacy.nreppadmin.net/ViewIntervention.aspx?id=153

[147] Treatment and Services Adaption Center (n.d.). Cognitive Behavioral Intervention for Trauma in Schools. Retrieved from https://traumaawareschools.org/cbits

intervention in a day treatment program. The following examples of evidence-based and other best-practice treatments are offered as examples of the types of services needed in the ideal system and are not intended to be an exhaustive inventory of potential community-based interventions and EBPs.

During the preschool years, parent/caregiver participation in treatment is an essential part of success. An ideal service array should include interventions, such as the following:

- **Parent-Child Interaction Therapy (PCIT)** has strong support as an intervention for use with children ages' three to six who are experiencing oppositional disorders or other problems.[148] PCIT works by improving the parent-child attachment through coaching parents in behavior management. It uses play and communication skills to help parents implement constructive discipline and limit setting. To improve the parent-child attachment through behavior management, the PCIT program integrates structural play and specific communication skills to teach parents and children constructive discipline and limit setting. PCIT teaches parents how to assess their child's immediate behavior and give feedback while the interaction is occurring. In addition, parents learn how to give their children direction towards positive behavior. A therapist guides parents through education and skill-building sessions and oversees practicing sessions with the child. PCIT has been adapted for use with Hispanic and Native-American families.
- **Early Childhood Mental Health Consultation** in early childhood settings, such as child care centers, emphasizes problem solving and capacity-building intervention within a collaborative relationship between a professional consultant with mental health expertise and one or more individuals, primarily child care center staff, with other areas of expertise.[149] Early childhood mental health consultation aims to build the capacity

[148] Chaffin, M., Silovsky, J., Funderburk, B., Valle, L., Brestan, E., Balachova, T., Jackson, S., Lensgraf, J., & Bonner, B. (2004). Parent-child interaction therapy with physically abusive parents: Efficacy for reducing future abuse reports. *Journal of Consulting and Clinical Psychology*, 72(3), 500–510.
Eyberg, S.M. (2003). Parent-child interaction therapy. In T.H. Ollendick & C.S. Schroeder (Eds.) *Encyclopedia of Clinical Child and Pediatric Psychology*. New York: Plenum.
Querido, J. G., Eyberg, S. M., & Boggs, S. (2001). Revisiting the accuracy hypothesis in families of conduct-disordered children. *Journal of Clinical Child Psychology*, 20, 253–261.

[149] Brennan, E.M., Bradley, J. R., Allen, M. D., Perry, D. F., & Tsega, A. (2006, February). The evidence base for mental health consultation in early childhood settings: Research synthesis addressing staff and program outcomes. Presented at the 19th Annual Research Conference, A System of Care for Children's Mental Health, Tampa, FL.
Child Health and Development Institute of Connecticut, Inc. (2005, April). Creating a statewide system of multi-disciplinary consultation for early care and education in Connecticut. Farmington, CT.
Cohen, E. & Kaufmann, R. (2005). Early childhood mental health consultation. DHHS Pub. No. CMHS-SVP0151. Rockville, MD: Center for Mental Health Services, Substance Abuse and Mental Health Services Administration. Retrieved from http://store.samhsa.gov/shin/content/SVP05-0151/SVP05-0151.pdf
Gilliam, W. (2005, May). Pre-kindergarteners left behind: Expulsion rates in state pre-kindergarten programs. Foundation for Child Development Policy Brief Series No. 3. New York: Foundation for Child Development. Retrieved from https://www.fcd-us.org/assets/2016/04/ExpulsionCompleteReport.pdf

(improve the ability) of staff, families, programs, and systems to prevent, identify, treat, and reduce the impact of mental health problems among children from birth to age six and their families. Two types of early childhood mental health consultation are generally discussed: program level and child/family level. The goals of program-level mental health consultation seek to improve a program's overall quality and address problems that affect more than one child, family, or staff member. Consultants may assist the setting in creating an overall approach to enhance the social and emotional development of all children. Child/family-centered consultation seeks to address a specific child's or family's difficulties in the setting. The consultant provides assistance to the staff in developing a plan to address the child's needs and may participate in observation, meet with the parents of the child, and, in some cases, refer the child and family for mental health services.

- **Theraplay** is a form of parent-child psychotherapy, used with both biological and foster families, which aims to create a "secure, attuned, joyful relationship between children and youth and their parents or primary caregivers."[150] It is used with children and youth from birth to age 18 years who are displaying behaviors such as withdrawal, non-compliance, trauma histories, attachment difficulties, and attention deficit and hyperactivity disorders. It can be used in a variety of settings with the goal of creating a connection between the child and a caregiver. Therapists guide caregivers through play and nurturing activities. Theraplay is delivered in 18 to 25 weekly sessions with quarterly follow-up sessions.
- **Applied Behavior Analysis (ABA)** has good support for the treatment of autism, particularly in young children.[151] ABA can be used in a school or clinic setting and is typically delivered between two and five days per week for two weeks to 11 months. ABA is one of the most widely used approaches with this population. The ABA approach teaches social, motor, and verbal behaviors as well as reasoning skills. ABA teaches skills through use of behavioral observation and positive reinforcement or prompting to teach each step of a behavior. Generally, ABA involves intensive training of the therapists,

[150] Substance Abuse and Mental Health Services Administration. (2016, December 27). Theraplay. Retrieved from http://nrepp.samhsa.gov/ProgramProfile.aspx?id=156.

[151] Harris, S. L., & Delmolino, L. (2002). Applied behavior analysis: Its application in the treatment of autism and related disorders in young children. *Infants and Young Children*, 14(3):11–17.
Smith, T., Groen, A. D. & Wynn, J. W. (2000). Randomized trial of intensive early intervention for children with pervasive developmental disorder. *American Journal on Mental Retardation*, 105 (4), 269–285.
McConachie, H. & Diggl, T. (2006). Parent implemented early intervention for young children with autism spectrum disorder: A systematic review. J*ournal of Evaluation in Clinical Practice*. (Early release).
Sallows, G. O. & Graupner, T. D. (2005). Intensive behavioral treatment for children with autism: Four-year outcome and predictors. *American Journal on Mental Retardation*, 110 (2), 417–438.
Eikeseth, S., Smith, T., Jahr, E., & Eldevik, E. (2002). Intensive behavioral treatment at school for 4- to 7-year-old children with autism: A 1-year comparison controlled study. *Behavior Modification*, 26 (1), 49–68.
Shook, G. L., & Neisworth, J. T. (2005). Ensuring appropriate qualifications for applied behavior analyst professionals: The behavior analyst certification board. *Exceptionality*, 13(1), 3–10.

extensive time spent in ABA therapy (20–40 hours per week), and weekly supervision by experienced clinical supervisors known as certified behavior analysts. It is preferred that a parent or other caregiver be the source for the generalization of skills outside of school. In the ABA approach, developing and maintaining a structured working relationship between parents and professionals is essential to ensure consistency of training and maximum benefit.

- **Preschool Posttraumatic Stress Disorder Treatment** is an approach adapted from trauma-focused cognitive behavioral therapy (TF-CBT – see the next section) and trauma-focused coping to help young children recover from traumatic events with support from their parents throughout the treatment process.
- **Child Parent Relationship Therapy** (CPRT) aims to address behavioral, emotional, social, and attachment disorders through a play-based treatment program founded on the premise that a child's well-being hinges on a secure parent-child relationship. As such, CPRT administration focuses around weekly, two-hour group sessions with 5–8 parents. These sessions include didactic, supervision, and group process components and work in two key stages. The first stage, which involves the first 3 of the program's 10 group sessions, helps parents learn child-centered play therapy skills, concepts, and attitudes. The final 7 sessions invite parents to practice those skills with their children in a supervised environment. Trained mental health professionals also provide parents with feedback and guidance for these sessions.[152] Although geared primarily for children ages 3–8, CPRT has expanded to include toddlers and pre-youth. Given that CPRT practice originates in the 1980s, the program has been the subject of significant evaluation and study with studies pointing to significant reduction in children's behavioral problems and parental stress. Likewise, there is substantial evidence pointing to increased parental empathy.[153]
- **Early Pathways** is a home-based, mental health services program designed with a specific interest in addressing the externalizing behaviors of young children living in poverty. The program comprises four core elements that aim at strengthening parent-child relationship (using, when possible, child-led play), helping parents maintain developmentally appropriate expectations for their children, helping parents and families use positive reinforcement to establish routines and strengthen child behavior, and decreasing challenging child behavior through limit-setting strategies.[154] Program duration ranges from 8 to 10 sessions, with sessions designed to strengthen and

[152] NREPP SAMHSA's National Registry of Evidence-Based Programs and Practices. (n.d.). Child Parent Relational Therapy. Retrieved from http://nrepp.samhsa.gov/ProgramProfile.aspx?id=196

[153] Center for Play Therapy (n.d.). CPRT overview. Retrieved from http://cpt.unt.edu/cprt-certification/cprt-overview

[154] Harris, S. E., Fox, R. A., & Love, J. R. (2015). Early pathways therapy for young children in poverty: A randomized controlled trial. *Counseling Outcome Research and Evaluation*, 6(1), 3–17.

reinforce the four core components. The initial session, for example, includes observed play sessions between parent and child, which are rated for the level and quality of parent-child interaction.[155] Subsequent sessions include developing a treatment plan, establishing appropriate behavioral expectations, providing methods for positive reinforcement, and examining home routines. When appropriate or necessary, additional problem solving sessions may be added.[156]

For young children, individual cognitive behavioral techniques are effective, parent work is still important, and some group therapy can begin. Examples include the following:

- **Behavior Therapy** has support for the treatment of attention and hyperactivity disorders, substance abuse, depression, and conduct problems. Typically, behavior therapy features behavior management techniques taught to teachers and parents to aid the child in replacing negative behaviors with more positive ones.[157]
- **Brief Strategic Family Therapy (BSFT)** is a problem-focused, family-based approach to the elimination of substance abuse risk factors. It targets problem behaviors in children and youth 6 to 17 years of age, and strengthens their families. BSFT provides families with tools to decrease individual and family risk factors through focused interventions that improve problematic family relations and skill-building strategies that strengthen families. It targets conduct problems, associations with anti-social peers, early substance use, and problematic family relations.[158]
- **Cognitive Behavior Therapy (CBT)** is widely accepted as an evidence-based, cost-effective psychotherapy for many disorders.[159] It is sometimes applied in group as well as individual settings. "CBT" can be seen as an umbrella term for many different therapies that share some common elements. For children and youth, CBT is often used to treat depression, anxiety disorders, and symptoms related to trauma and Post Traumatic Stress Disorder. CBT can be used for anxious and avoidant disorders,

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[155] NREPP SAMHSA's National Registry of Evidence-Based Programs and Practices. (n.d.). Early pathways. Retrieved from http://nrepp.samhsa.gov/ProgramProfile.aspx?id=36

[156] NREPP SAMHSA's National Registry of Evidence-Based Programs and Practices. (n.d.). Early pathways. Retrieved from http://nrepp.samhsa.gov/ProgramProfile.aspx?id=36

[157] Pelham, W. E., Wheeler, T., & Chronis, A. (1998). Empirically supported psychosocial treatments for ADHD. *Journal of Clinical Child Psychology*, 27, 190–205.

[158] Szapocznik J. & Williams R. A. (2000). Brief strategic family therapy: Twenty-five years of interplay among theory, research and practice in adolescent behavior problems and drug abuse. *Clinical Child and Family Psychology Review*, 3(2), 117–135.

Szapocznik J. & Hervis O.E. (2001). Brief Strategic Family Therapy: A revised manual. In *National Institute on Drug Abuse Treatment Manual*. Rockville, MD: NIDA. BSFT has support for use with Hispanic families.

[159] Hoagwood, K., Burns, B. J., Kiser, L., Ringeisen, H., & Schoenwald, S. K. (2001). Evidence-based practice in child and adolescent mental health services. *Psychiatric Services*, 52, 1179–89.

Weisz, J. R., Doss, J. R., Jensen, A., & Hawley, K. M. (2005). Youth psychotherapy outcome research: A review and critique of the evidence base. *Annual Review of Psychology*, 56, 337–363.

depression, substance abuse, disruptive behavior, and ADHD. It can be used with family intervention. Specific pediatric examples include Coping Cat and the Friends Program. CBT works with individuals to understand their behaviors in the context of their environment, thoughts, and feelings. The premise is that people can change the way they feel or act despite the environmental context. CBT programs can include several components including psychoeducation, social skills, social competency, problem solving, self-control, decision making, relaxation, coping strategies, modeling, and self-monitoring.

- **Trauma-Focused Cognitive Behavioral Therapy (TF-CBT)** has strong support for efficacy with children and youth aged 3 to 18 years old and their parents.[160] It can be provided in individual, family, and group sessions in outpatient settings. TF-CBT addresses anxiety, self-esteem, and other symptoms related to traumatic experiences. TF-CBT is a treatment intervention designed to help children, youth, and their parents overcome the negative effects of traumatic life events such as child sexual or physical abuse; traumatic loss of a loved one; domestic, school, or community violence; or exposure to disasters, terrorist attacks, or war trauma. It integrates cognitive and behavioral interventions with traditional child abuse therapies in order to focus on enhancing children's interpersonal trust and re-empowerment. TF-CBT has been applied to an array of anxiety symptoms as well as intrusive thoughts of the traumatic event, avoidance of reminders of the trauma, emotional numbing, excessive physical arousal/activity, irritability, and trouble sleeping or concentrating. It also addresses issues commonly experienced by traumatized children and youth, such as poor self-esteem, difficulty trusting others, mood instability, and self-injurious behavior, including substance use. TF-CBT has been adapted for Hispanic/Latino children and youth, and some of its assessment instruments are available in Spanish.[161]
- **Modular Approach to Therapy for Children and Youth with Anxiety, Depression, Trauma, or Conduct Problems (MATCH-ADTC)** is a collection of therapeutic components for children and youth ages 8–13 years with anxiety, depression, trauma, or conduct

[160] Cohen, J. A., & Mannarino, A. P. (1996). A treatment outcome study for sexually abused preschool children: Initial findings. *Journal of the American Academy of Child & Adolescent Psychiatry*, 35(1), 42–50.
King, N., Tonge, B., Mullen, P., Myerson, N., Heyne, D., Rollings, S., Martin, R., & Ollendick, T. (2000). Treating sexually abused children with posttraumatic stress symptoms: A randomized clinical trial. *Journal of the American Academy of Child & Adolescent Psychiatry*, 39(11), 1347–1355.
Mannarino, A. P., & Cohen, J. A. (1996). A follow-up study of factors that mediate the development of psychological symptomatology in sexually abused girls. *Child Maltreatment*, 1(3), 246–260.
Stein, B., Jaycox, L., Kataoka, S., Wong, M., Tu, W., Elliott, M., & Fink, A. (2003). A mental health intervention for school children exposed to violence: A randomized controlled trail. *Journal of the American Medical Association*, 290(5), 603–611.
[161] Ford, J. D., Steinberg, K. L., Hawke, J., Levine, J., & Zhang, W. (2012). Randomized trial comparison of emotion regulation and relational psychotherapies for PTSD with girls involved in delinquency. *Journal of Clinical Child & Adolescent Psychology*, 41(1), 27–37.

problems. MATCH-ADTC was developed from a review of meta-analyses of evidence-based treatments and includes components of cognitive behavior therapy, parent training, coping skills, problem solving, and safety planning.[162] The modules provide a collection of treatment options that can be individualized depending on the child's needs. The program also includes family involvement in developing treatment plan goals.

- **Problem-Solving Therapy (PST)** is a brief intervention for youth 13 and older who are experiencing depression and distress related to difficulties with problem-solving.[163] Through the model, patients learn to identify problems, utilize problem-solving skills, and manage their symptoms. The patient identifies a solution to his or her problem through the PST process, which includes seven stages. Clients learn to evaluate their solutions and outcomes and are guided to develop a relapse-prevention plan during the final sessions. The intervention is delivered in 4 to 12 sessions.
- **Trauma Affect Regulation: Guide for Education and Therapy** (TARGET) is an educational and psychotherapeutic intervention directed toward the prevention and treatment of various stressors and disorders, including traumatic stress disorders, addictive disorders, and adjustment disorders. TARGET aims towards providing youth with skills for processing and managing trauma, stress, and trauma-related reactions to these situations.[164] TARGET includes three key components (education about the biological and behavioral aspects of SUDs and PTSD, guided processing and self-regulation skills, and development of an autobiographical narrative that comprises the relevant trauma or disorder).[165] To address these components, the program employs a manualized protocol and brief, time-limited sessions, which can be administered through group or individual psychotherapy in diverse settings.[166] As such, the length that any individual adolescent may be in the program may range from six months to multiple years.

For youth, the same EBPs as above should be available in outpatient and school-based clinics, as should the following programs for teens with severe difficulties, including those that may be at risk for out-of-home placement.

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[162] NREPP SAMHSA's National Registry of Evidence-Based Programs and Practices. (n.d.). Modular Approach to Therapy for Children with Anxiety, Depression, Trauma, or Conduct Problems. Retrieved from http://nrepp.samhsa.gov/ProgramProfile.aspx?id=64

[163] NREPP SAMHSA's National Registry of Evidence-Based Programs and Practices. (n.d.). Problem Solving Therapy. Retrieved from http://nrepp.samhsa.gov/ProgramProfile.aspx?id=108

[164] National Institute of Justice. (2011). Program profile: Trauma Affect Regulation: Guide for Education and Therapy. Retrieved from https://www.crimesolutions.gov/ProgramDetails.aspx?ID=145

[165] National Institute of Justice. (2011). Program profile: Trauma Affect Regulation: Guide for Education and Therapy. Retrieved from https://www.crimesolutions.gov/ProgramDetails.aspx?ID=145

[166] NREPP SAMHSA's National Registry of Evidence-Based Programs and Practices. (n.d.). Trauma Affect Regulation: Guide for Education and Treatment. Retrieved from http://nrepp.samhsa.gov/ProgramProfile.aspx?id=1222

- **Wraparound Service Coordination** (based on the standards of the National Wraparound Initiative) is an integrated care coordination approach delivered by professionals, alongside youth and family partners, for children and youth involved with multiple systems and at the highest risk for out-of-home placement.[167] Wraparound is not a treatment per se. Instead, wraparound facilitation is a care coordination approach that fundamentally changes the way in which individualized care is planned and managed across systems. The wraparound process aims to achieve positive outcomes by providing a structured, creative, and individualized team planning process that, compared to traditional treatment planning, results in plans that are more effective and more relevant to the child and family. Additionally, wraparound plans are more holistic than traditional care plans in that they address the needs of the youth within the context of the broader family unit and are also designed to address a range of life areas. Through the team-based planning and implementation process, wraparound also aims to develop the problem-solving skills, coping skills, and self-efficacy of the young people and family members. Finally, there is an emphasis on integrating the youth into the community and building the family's social support network. The wraparound process also centers on intensive care coordination by a child and family team (CFT) coordinated by a wraparound facilitator. The family, the youth, and the family support network comprise the core of the CFT members; these are joined by parent and youth support staff, providers involved in the care of the family, representatives of agencies with which the family is involved, and natural supports chosen by the family. The CFT is the primary point of responsibility for coordinating the many services and supports involved, with the family and youth ultimately driving the process. The wraparound process involves multiple phases over which responsibility for care coordination increasingly shifts from the wraparound facilitator and the CFT to the family.[168]
- **Dialectical Behavior Therapy (DBT) Approaches for Youth** is well supported for adults, but also has moderate support for helping youth to develop new skills to deal with emotional reaction and to use what they learn in their daily lives.[169] DBT for youth often

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[167] Bruns, E. J., Walker, J. S., Adams, J., Miles, P., Osher, T. W., Rast, J., VanDenBerg, J. D. & National Wraparound Initiative Advisory Group. (2004). *Ten principles of the wraparound process*. Portland, OR: National Wraparound Initiative, Research, and Training Center on Family Support and Children's Mental Health, Portland State University.
Aos, S., Phipps, P., Barnoski, R., & Lieb, R. (2001). *The comparative costs and benefits of programs to reduce crime.* Olympia: Washington State Institute for Public Policy.
Hoagwood, K., Burns, B. J., Kiser, L., Ringeisen, H, & Schoenwald, S. K. (2001). Evidence-based practice in child and adolescent mental health services. *Psychiatric Services*, 52, 1179–89.

[168] For additional information on the phases of the wraparound process, see information at http://www.nwi.pdx.edu/NWI-book/Chapters/Walker-4a.1-(phases-and-activities).pdf

[169] Miller, A. L., Wyman, S. E., Huppert, J. D., Glassman, S. L., & Rathus, J. H. (2000). Analysis of behavioral skills utilized by suicidal youth receiving DBT. *Cognitive & Behavioral Practice*, 7, 183–187.
Rathus, J.H. & Miller, A.L. (2002). Dialectical Behavior Therapy adapted for suicidal youth. *Suicide and Life-Threatening Behavior*, 32, 146-157.

includes parents or other caregivers in the skills-training group. This inclusion allows parents and caregivers to both coach youth in skills and improve their own skills when interacting with the youth. Therapy sessions usually occur twice per week. There are four primary sets of DBT strategies, each set including both acceptance-oriented and more change-oriented strategies. Core strategies in DBT are validation (acceptance) and problem-solving (change). Dialectical behavior therapy proposes that comprehensive treatment needs to address four functions: help consumers develop new skills, address motivational obstacles to skill use, generalize what they learn to their daily lives, and keep therapists motivated and skilled. In standard outpatient DBT, these four functions are addressed primarily through four different modes of treatment: group skills training, individual psychotherapy, telephone coaching between sessions when needed, and a therapist consultation team meeting, respectively. Skills are taught in four modules: mindfulness, distress tolerance, emotion regulation, and interpersonal effectiveness.

- **Functional Family Therapy (FFT)** is a well-established EBP with proven outcomes and cost benefits when implemented with fidelity for targeted populations. FFT is a research-based family program for at-risk youth and their families, targeting youth between the ages of 11 and 18. It has been shown to be effective for the following range of adolescent problems: violence, drug abuse/use, conduct disorder, and family conflict. FFT targets multiple areas of family functioning and ecology for change and features well developed protocols for training, implementation (i.e., service delivery, supervision, and organizational support), and quality assurance and improvement.[170] FFT focuses on family alliance and involvement in treatment. The initial focus is to motivate the family and prevent dropout. The treatment model is deliberately respectful of individual differences, cultures, and ethnicities and aims for obtainable change with specific and individualized intervention that focuses on both risk and protective factors. Intervention incorporates community resources for maintaining, generalizing, and supporting family change.[171]
- **Multidimensional Family Therapy (MDFT)** is a family-based program designed to treat substance abusing and delinquent youth. MDFT has good support for Caucasian, African-American and Hispanic/Latino youth between the ages of 11 and 18 in urban,

Trupin, E., Stewart, D., Beach, B., & Boesky, L. (2002). Effectiveness of a Dialectical Behavior Therapy program for incarcerated female juvenile offenders. *Child and Adolescent Mental Health,* 7(3), 121–127.

[170] Alexander, J., Barton, C., Gordon, D., Grotpeter, J., Hansson, K., Harrison, R., et al. (1998). *Blueprints for violence prevention series, book three: Functional family therapy (FFT).* Boulder, CO: Center for the Study and Prevention of Violence.

[171] Rowland, M., Johnson-Erickson, C., Sexton, T., & Phelps, D. (2001). A statewide evidence based system of care. Paper presented at the 19th Annual System of Care Meeting. Research and Training Center for Children's Mental Health.

suburban, and rural settings.[172] Treatment usually lasts between four to six months and can be used alone or with other interventions. MDFT is a multi-component and multilevel intervention system that assesses and intervenes at three levels including adolescent and parents individually, family as an interacting system, and individuals in the family relative to their interactions with influential social systems (e.g., school, juvenile justice) that impact the adolescent's development. MDFT interventions are solution-focused and emphasize immediate and practical outcomes in important functional domains of the youth's everyday life. MDFT can operate as a stand-alone outpatient intervention in any community-based clinical or prevention facility. It also has been successfully incorporated into existing community-based drug treatment programs, including hospital-based day treatment programs.

- **Multisystemic Therapy (MST)** is a well-established EBP with proven outcomes and cost benefits when implemented with fidelity for youth living at home with more severe behavioral problems related to willful misconduct and delinquency.[173] In addition, the developers are currently working to form specialized supplements to meet the needs of specific sub-groups of youth. MST is an intensive, home-based service model provided to families in their natural environment at times convenient to the family. MST has low caseloads and varying frequency, duration, and intensity levels. MST is based on social-ecological theory that views behavior as best understood in its naturally occurring context and was developed to address major limitations in serving juvenile offenders, focusing on changing the determinants of youth anti-social behavior.[174] At its core, MST assumes that problems are multi-determined and that, to be effective, treatment needs to impact multiple systems, such as a youth's family and peer group. Accordingly, MST is designed to increase family functioning through improved parental monitoring of children and youth, reduction of familial conflict, improved communication, and related

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[172] Hoagwood, K., Burns, B. J., Kiser, L., Ringeisen, H, & Schoenwald, S. K. (2001). Evidence-based practice in child and adolescent mental health services. *Psychiatric Services*, 52, 1179–89.
Hogue, A. T., Liddle, H.A., Becker, D., & Johnson-Leckrone, J. (2002). Family-based prevention counseling for high-risk young youth: Immediate outcomes. *Journal of Community Psychology*, 30(1), 1–22.
Liddle H. A., Dakof, G. A., Parker K., Diamond G. S., Barrett K., Tejeda, M. (2001). Multidimensional Family Therapy for adolescent drug abuse: Results of a randomized clinical trial. *American Journal of Drug and Alcohol Abuse*, 27, 651–687.

[173] Huey, S. J. Jr., Henggeler, S. W., Brondino, M. J., &, Pickrel, S. G. (2000). Mechanisms of change in multisystemic therapy: Reducing delinquent behavior through therapist adherence and improved family and peer functioning. J*ournal of Consulting and Clinical Psychology*, 68 (3), 451–467.
Schoenwald S. K., Henggeler S. W., Pickrel S. G., & Cunningham, P. B. (1996). Treating seriously troubled youths and families in their contexts: Multisystemic therapy. In M. C. Roberts (Ed.), *Model programs in child and family mental health*, (pp. 317–332). Mahwah, NJ: Lawrence.

[174] Henggeler S. W., Weiss, J., Rowland M. D., Halliday-Boykins, C. (2003). One-year follow-up of Multisystemic therapy as an alternative to the hospitalization of youths in psychiatric crisis. *Journal of the American Academy of Child & Adolescent Psychiatry,* 42(5), 543–551.

factors. Additionally, MST interventions focus on increasing the youth's interaction with "prosocial" peers and a reduction in association with "deviant" peers, primarily through parental mediation.[175] **MST-Psychiatric (MST-P)** is an approach similar to MST but adapted for teens with serious emotional disorders.

- **Coordinated Specialty Care (CSC)** for first episode psychosis (FEP) is delivered by a multi-disciplinary team of mental health professionals, including psychiatrists, therapists and substance use disorder counselors, employment specialists, and peer specialists. Early detection is important, as people with psychoses typically do not receive care and treatment until five years after first onset.[176] Community education activities and the development of strategic partnerships with key entities in the community is critical, and the team also plays a role in detecting emerging psychosis and creating channels through which youth and young adults can be referred for treatment. CSC is individually tailored to the person and it actively engages the family in supporting recovery from early psychosis. Effective treatments, such as medication management, individual therapy, and illnesses management are provided, as well as other less common evidence-based approaches that are known to help people with serious mental illnesses retain or recover a meaningful life in the community, such as Supported Education and Supported Employment. The ultimate goal of CSC is to provide effective treatment and support as early in the illness process as possible so that people can remain on a healthy developmental path. In Kane and colleagues report on the multi-site RAISE study (conducted across 34 clinics in 21 states) in the *American Journal of Psychiatry* in 2016, the authors noted that, especially when receiving CSC within the first 17 months of psychosis onset, participants had better quality of life and were more involved in work and school.[177] CSC was better than care-as-usual at helping people remain on a normal developmental path. Researchers have also examined the costs of CSC versus care-as-usual and found that CSC was less expensive per unit of improvement in quality of

[175] Huey, S. J. Jr., Henggeler, S. W., Rowland, M. D, Halliday-Boykins, C. A., Cunningham, P. B., Pickrel, S. G., Edwards, J. (2004). Multisystemic therapy effects on attempted suicide by youths presenting psychiatric emergencies. *Journal of the American Academy of Child & Adolescent Psychiatry*, 43(2):183–190.

[176] Wang P.S., Berglund P.A., Olfson M., Kessler R.C. (2004). Delays in initial treatment contact after first onset of a mental disorder. *Health Services Research, 39*(2), 393–415.

[177] Kane, J.M., et al. (2015). Comprehensive versus usual community care for first episode psychosis: 2-year outcomes from the NIMH RAISE early treatment program. *American Journal of Psychiatry*, ajp in Advance, 1-11.

life.[178] According to the CSC model on which the two RAISE programs are based,[179] teams should, at a minimum, consist of the following:[180]

- A team leader or coordinator (PhD or master's degree), who is responsible for the client's overall treatment plan and programming as well as the team's coordination and functioning;
- A psychiatrist[181] trained in treatment of early psychosis, who provides medication management, actively monitors and helps ameliorate medication side effects, and coordinates treatment with primary care and other specialty medical providers;
- A primary clinician (PhD or master's degree), who provides in-depth individual and family support, suicide prevention planning, and crisis management, and, along with the team leader and other clinicians, assists with access to community resources and supports as well as other clinical, rehabilitation, and case management-related services; and
- A Supported Employment specialist (occupational therapist or master's level clinician) to help consumers re-enter school or work.
- Recent developments in FEP Care have increasingly led to the expectation that a peer specialist should also be included on the team.[182] This position should be filled by a person who has experienced serious mental illness and has been able to recover from it or to develop a productive and satisfying life while continuing to receive treatment.

- **Assertive Community Treatment (ACT) for Transition-Age Youth** uses a recovery/resilience orientation that offers community-based, intensive case management, and skills building in various life domains. It also includes medication management and substance abuse services for youth ages 18–21 with severe and persistent mental illness. More broadly, ACT is an integrated, self-contained service approach in which a range of treatment, rehabilitation, and support services are directly

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[178] Rosenheck, R., et al. (2016). Cost-effectiveness of comprehensive, integrated care for first episode psychosis in the NIMH RAISE early treatment program. *Schizophrenia Bulletin* (Advance Access, doi: 10.1093/schbul/sbv224)

[179] McNamara, K. et al. (n.d.) *Coordinated specialty care for first episode psychosis, manual I: Outreach and treatment*. Rockville, MD: National Institute of Mental Health. Retrieved on July 30, 2016 from http://www.nimh.nih.gov/health/topics/schizophrenia/raise/csc-for-fep-manual-i-outreach-and-referral_147094.pdf

[180] Please note that these models only describe an outpatient or community-based team. All teams will need to develop collaborative working relationships with inpatient providers that will enable them to ensure continuity of care as well as timely and comprehensive discharge planning.

[181] Some programs might choose to utilize advanced psychiatric nurse practitioners, but the UTSW Psychosis Center plans to employ psychiatrists in this important role.

[182] Dr. Nev Jones (personal communication, July 6, 2016). For a comprehensive explication of the role of peers in FEP Care programs, see: Jones, N. (2015, September). *Peer involvement and leadership in early intervention in psychosis services: From planning to peer support and evaluation*. Rockville, MD: SAMHSA/CMHS. DOI: 10.13140/RG.2.1.4898.3762

provided by a multidisciplinary team composed of psychiatrists, nurses, vocational specialists, substance abuse specialists, peer specialists, mental health professionals, and other clinical staff in the fields of psychology, social work, rehabilitation, counseling, and occupational therapy. Given the breadth of expertise represented on the multidisciplinary team, ACT provides a range of services to meet individual consumer needs, including (but not limited to) service coordination, crisis intervention, symptom and medication management, psychotherapy, co-occurring disorders treatment, employment services, skills training, peer support, and wellness recovery services. Most ACT services are delivered to the consumer within his or her home and community rather than provided in hospital or outpatient clinic settings, and services are available around the clock. Each team member is familiar with each consumer served by the team and is available when needed for consultation or assistance. The most recent conceptualizations of ACT include peer specialists as integral team members. ACT is intended to serve individuals with severe and persistent mental illness, significant functional impairments (such as difficulty with maintaining housing or employment), and continuous high service needs (such as long-term or multiple acute inpatient admissions or frequent use of crisis services).[183, 184]

- **The Intensive In-Home and Child and Adolescent Psychiatric Services (IICAPS)** model was developed by Yale University to provide a home-based alternative to inpatient treatment for children and youth returning from out-of-home care or at risk of requiring out-of-home care due to psychiatric, emotional, or behavioral difficulties. Services are provided by a clinical team that includes a master's-level clinician and a bachelor's-level mental health counselor. The clinical team is supported by a clinical supervisor and a child and adolescent psychiatrist. IICAPS services are typically delivered for an average of six months. IICAPS staff also provide 24-hour/seven-days-a-week emergency crisis response.
- **HOMEBUILDERS** is an intensive family preservation program designed for children and youth from birth to age 17 years, with an imminent risk of out-of-home placement or who are scheduled to reunify with families within a week.[185] The program uses intensive, on-site intervention aimed at teaching families problem-solving skills that might prevent future crises. HOMEBUILDERS is structured around a quality enhancement system, QUEST, which supports a three-part methodology (delineation of standards, measurement and fidelity of service implementation, and development of

[183] Allness, D. J., & Knoedler, W. H. (2003). *A manual for ACT start-up*. Arlington, VA: National Alliance for the Mentally Ill.

[184] Morse, G., & McKasson, M. (2005). Assertive Community Treatment. In R.E. Drake, M. R. Merrens, & D.W. Lynde (eds.). *Evidence-based mental health practice: A textbook*.

[185] Washington State Department of Social and Health Services. (n.d.). Homebuilders intensive family preservation. Retrieved from https://www.dshs.wa.gov/node/3303

quality enhancement plans), offers training for state agencies, and claims a significant success rate (86%) of children and youth who have avoided placement in state-funded foster care and other out-of-home care.[186] HOMEBUILDERS generally intervenes when families are in crisis and provides an average of 40 to 50 hours of direct service, on a flexible schedule.[187]

- **Partners with Families & Children: Spokane** (Partners) is a service that relies on referrals from child welfare, law enforcement, or other public health agencies. As such, Partners' main goal is to assist children, youth, and their families in situations of persistent child neglect or those in which briefer interventions are unlikely to be effective.[188] The program is a community-based, family treatment program based on wraparound principles and focused on enhancing parent-child relationships while providing case management, substance abuse and mental health services, parenting resources, and an individualized family care team. These components aim to better assist the whole family in the cessation or prevention of neglect and maltreatment, working toward recovery through the combined efforts of an assigned Family Team Coordinator, a core team (which involves partnerships in community organizations such as schools and Head Start programs), and family team meetings.[189] The Partners approach, then, is designed to emphasize parents at the center of a teamwork-driven mechanism that creates therapeutic change to address immediate and anticipated problems that might otherwise lead to neglect, abuse, and removal.[190]

The Crisis Continuum and Out-of-Home Treatment Options

Treatment of children and youth in residential facilities is no longer thought to be the most beneficial way to treat those with significant difficulties. The 1999 Surgeon Generals' Report on Mental Health states, "Residential treatment centers (RTCs) are the second most restrictive form of care (next to inpatient hospitalization) for children and youth with severe mental disorders. In the past, admission to an RTC was justified on the basis of community protection, child protection, and benefits of residential treatment. However, none of these justifications

[186] Institute of Family Development. (n.d.). Programs: Homebuilders – IFPS. Retrieved from http://www.institutefamily.org/programs_ifps.asp

[187] NREPP SAMHSA's National Registry of Evidence-Based Programs and Practices. (n.d.). HOMEBUILDERS. Retrieved from http://legacy.nreppadmin.net/ViewIntervention.aspx?id=277

[188] Substance Abuse and Mental Health Services Administration. (2016, July 8). Partners with Families & Children: Spokane. Retrieved from http://nrepp.samhsa.gov/ProgramProfile.aspx?id=114

[189] Clearinghouse for Military Family Readiness. (n.d.). Partners with Families and Children: Spokane. Retrieved from http://www.militaryfamilies.psu.edu/programs/partners-families-and-children-spokane

[190] Substance Abuse and Mental Health Services Administration. (2016, July 8). Partners with Families & Children: Spokane. Retrieved from http://nrepp.samhsa.gov/ProgramProfile.aspx?id=114

have stood up to research scrutiny. In particular, youth who display seriously violent and aggressive behavior do not appear to improve in such settings, according to limited evidence."

Residential treatment represents a necessary component of the continuum of care for children and youth whose behaviors are not managed effectively in a less restrictive setting. However, residential treatment is among the most restrictive mental health services provided to children and youth and, as such, should be reserved for situations when less restrictive placements are ruled out. For example, specialized residential treatment services are supported for youth with highly complex needs or dangerous behaviors (e.g., fire setting) that may not respond to intensive, nonresidential service approaches.[191] Yet, on a national basis, children and youth are too often placed in residential treatment because more appropriate community-based services are not available.

Nevertheless, youth do sometimes need to be placed outside of their homes for their own safety or the safety of others. Safety should be the primary determinant in selecting out-of-home treatment as an option, as the evidence-based community interventions described above allow for even the most intensive treatment services to be delivered in community settings. Whether the situation is temporary, due to a crisis, or for longer term care, the ideal service system should include an array of safe places for children and youth as supported by the following approaches:

- **A family-driven, youth-guided, community-based plan** should follow the child or youth across all levels of care (including out-of-home placements, as applicable) and help him/her return to home as quickly as possible, knitting together an individualized mix from among the following array of services.
- **A full continuum of crisis response**, with mobile supports and short- to intermediate-term, local out-of-home options, including respite, psychosocial, and behavioral health interventions for youth and their families should include the following:
  - A mobile crisis team for children, youth, and families that has the capacity to provide limited ongoing in-home supports, case management, and direct access to out-of-home crisis supports (for a national example, see Wraparound Milwaukee's Mobile Urgent Treatment Team/MUTT);[192]
  - Screening, assessment, triage, ongoing consultation, time-limited follow-up care, and linkages to transportation resources, supported by protocols and electronic

[191] Stroul, B. (2007). Building bridges between residential and nonresidential services in systems of care: Summary of the special forum held at the 2006 Georgetown University Training Institutes. Washington, DC: Georgetown University Center for Child and Human Development, National Technical Assistance Center for Children's Mental Health.

[192] For more information, see http://wraparoundmke.com/programs/mutt/.

systems to communicate results across professionals and systems to determine the appropriate level of services;
  - Coordination with emergency medical services;
  - Crisis telehealth and phone supports; and
  - An array of crisis placements tailored to the needs and resources of the local system of care, including an array of options such as:
    - In-home respite options;
    - Crisis foster care (placements ranging from a few days up to 30 days),
    - Crisis respite (one to 14 days), and
    - Crisis stabilization (15 to 90 days) with capacity for 1:1 supervision;
  - Acute inpatient care; and
  - Linkages to a full continuum of empirically supported practices.
- **A residential continuum of placement types**, grounded in continued connections and accountability to the home community, is needed. This continuum should offer a focus on specialized programming, including specialized residential programming for youth with gender-identity issues and for gender-responsive services (those intentionally, not superficially, serving female youth and that include a continuum of out-of-home treatment options for young women with behavioral health needs, including histories of sexual maltreatment). It should also provide residential placement options that vary by intensity of service provided, primary clinical needs addressed, and targeted length of stay, emphasizing acute-oriented programs to serve as an inpatient alternative in which children and youth can have behaviors that require longer than a typical acute inpatient stay to be stabilized, complex needs evaluated, and treatment begun while transition planning back to a more natural environment takes place.
- **Treatment foster care** is another promising area, particularly Treatment Foster Care Oregon (TFCO). TFCO, formerly Multidimensional Treatment Foster Care, is the most well-known and well-researched intensive foster care model. TFCO has demonstrated effectiveness as a cost-effective alternative to group or residential treatment, incarceration, and hospitalization for youth who have problems with chronic antisocial behavior, emotional disturbance, and delinquency. TFCO is a well-established EBP that has demonstrated outcomes and cost savings when implemented with fidelity and with research support for its efficacy with Caucasian, African-American, and American-Indian youth and families.[193] There is an emphasis on teaching interpersonal skills and on

[193] Chamberlain P, Reid J. B. (1991). Using a specialized foster care community treatment model for children and youth leaving the state mental hospital. *Journal of Community Psychology*, 19, 266–276.
Hoagwood, K., Burns, B. J., Kiser, L., Ringeisen, H, & Schoenwald, S. K. (2001). Evidence-based practice in child and adolescent mental health services. *Psychiatric Services*, 52, 1179–89.
Kazdin, A. E., & Weisz, J. R. (Eds.) (2003). *Evidence-based psychotherapies for children and youth*. New York: Guilford Press.

participation in positive social activities including sports, hobbies, and other forms of recreation. Placement in foster parent homes typically lasts about six months. Aftercare services remain in place for as long as the parents want, but typically last about one year.

- **Keeping Foster and Kin Parents Supported and Trained (KEEP)** was developed by the developers of the TFCO model. KEEP is a skills development program for foster parents and kinship parents of children ages 0 to 5 years and youth (KEEP SAFE). The 16-week program is taught in 90-minute group sessions to 7 to 10 foster or kinship parents. Facilitators draw from an established protocol manual and tailor each session to address the needs of parents and children.[194] The goal of the program is to teach parents effective parenting skills, including appropriate praise, positive reinforcement, and discipline techniques.[195] Child care and snacks are provided as part of the sessions. A small study of the program funded by the U.S. Department of Health and Human Services Children's Bureau showed fewer placement breakdowns, fewer behavioral and emotional problems, and greater prevention of foster parents dropping out from providing care.[196] A larger randomized study in San Diego showed that biological or adoptive parents who participated in the KEEP program were reunified with their children more frequently. The study also showed fewer placement disruptions from foster placements. KEEP has been implemented in Oregon, Washington, California, Maryland, New York City, four regions in Tennessee, and in Sweden and Great Britain.

When residential treatment is provided, there should be extensive involvement of the family. Residential (and community-based) services and supports must be thoroughly integrated and coordinated, and residential treatment and support interventions must work to maintain, restore, repair, or establish youths' relationships with family and community.

Family involvement is essential throughout the course of residential treatment, especially at admission, in the development of the treatment plan, when milestones are reached, and in discharge planning.

Weisz, J. R., Doss, J. R., Jensen, A., & Hawley, K. M. (2005). Youth psychotherapy outcome research: A review and critique of the evidence base. *Annual Review of Psychology*, 56, 337–363.

[194] Oregon Social Learning Center. (n.d.). KEEP Based on Research Conducted at OSLC. Retrieved from http://www.oslc.org/projects/keep/

[195] Child Trends. (n.d). Keep Program. Retrieved from https://www.childtrends.org/programs/keep-program/

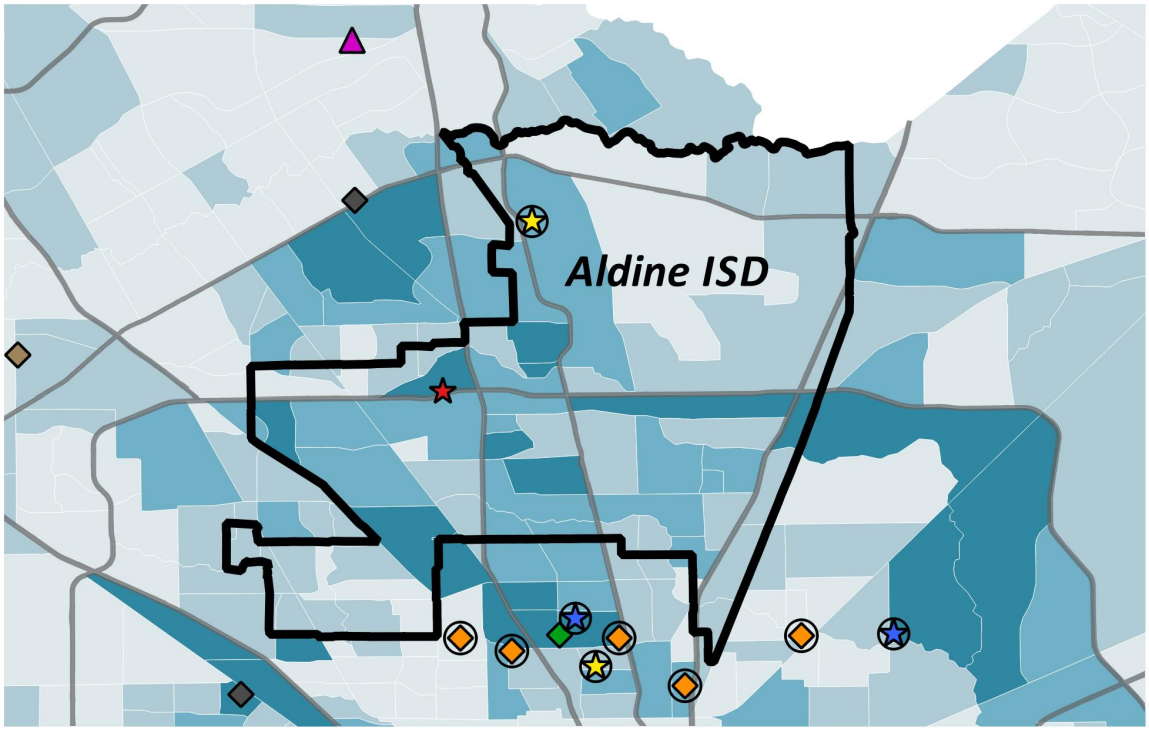
[196] KEEP Supporting Foster and Kinship Families. (n.d.). Effectiveness. Retrieved from http://www.keepfostering.org/program-effectiveness/

Appendix C: Independent School District (ISD) Detail Maps

The maps in this appendix provide a closer view of each of the independent school districts (ISDs) located within, or partially within, Harris County. The maps, presented in alphabetical order, include a base layer showing the number of children and youth under 18 in poverty per census tract in 2015. Additionally, each map shows the providers located in or near each school district, as well as additional data on needs. For many school districts, there were no known school-based clinics within district boundaries, so none are depicted.[197]

[197] Poverty data obtained from The US Census Bureau, American Community Survey 2015 Five-Year Estimates. Table B17001: Poverty Status in the Past 12 Months by Sex by Age. Retrieved from https://www.factfinder.census.gov. Major Roads shapefile obtained from the Houston Data Portal: Shapefile of Harris County Highways, available at http://data.ohouston.org. School Clinics obtained via personal communication with the Harris Center and Legacy Community Health, and through the Memorial Hermann website, http://www.memorialhermann.org, and the Vecino Health website, http://www.vecinohealthcenters.org. The total number of students per district was obtained from the Texas Education Agency. PEIMS Standard Reports – Enrollment Reports 2016-2017. Retrieved from tea.texas.gov. The number of children in foster care per district was obtained from the TDFPS IMPACT system and is current, 2017 data. The number of students with an economic disadvantage was obtained from the Texas Education Agency PEIMS Standard Reports: Economically Disadvantaged Reports 2016-2017, available at tea.texas.gov. The number of students receiving special education due to emotional disturbance obtained from the Texas Education Agency PEIMS Standard reports, Special Education Reports, 2016-2017, available at tea.texas.gov.

Figure 1: Aldine ISD



Aldine ISD Details

Total Number of Students: 69,768
Number of Children Reported in Foster Care: 220
Percent of Students with an Economic Disadvantage: 86%
Students in Special Education for Emotional Disturbance: 252

Provider Type

- Integrated Care Clinic
- Integrated Care Clinic (School-Based)
- Specialty Behavioral Health Care Clinic
- Specialty Behavioral Health Care Clinic (School-Based)
- Rehabilitation Provider*

*Rehabilitation Services are provided in the youth's home, school, and community.

Organization

- The Harris Center
- Texas Children's System
- Memorial Hermann
- Vecino Health
- Legacy Community Health
- Youth Advocate Programs
- DePelchin
- Arrow Child and Family Ministries
- Harris Health System
- Pathways Youth and Family Services
- Other

Number of Children Under 18 in Poverty, 2015

- < 280
- 281 - 650
- 651 - 1,120
- 1,121 - 2,082

- Aldine ISD Boundary
- Major Roads

N

Figure 2: Alief ISD

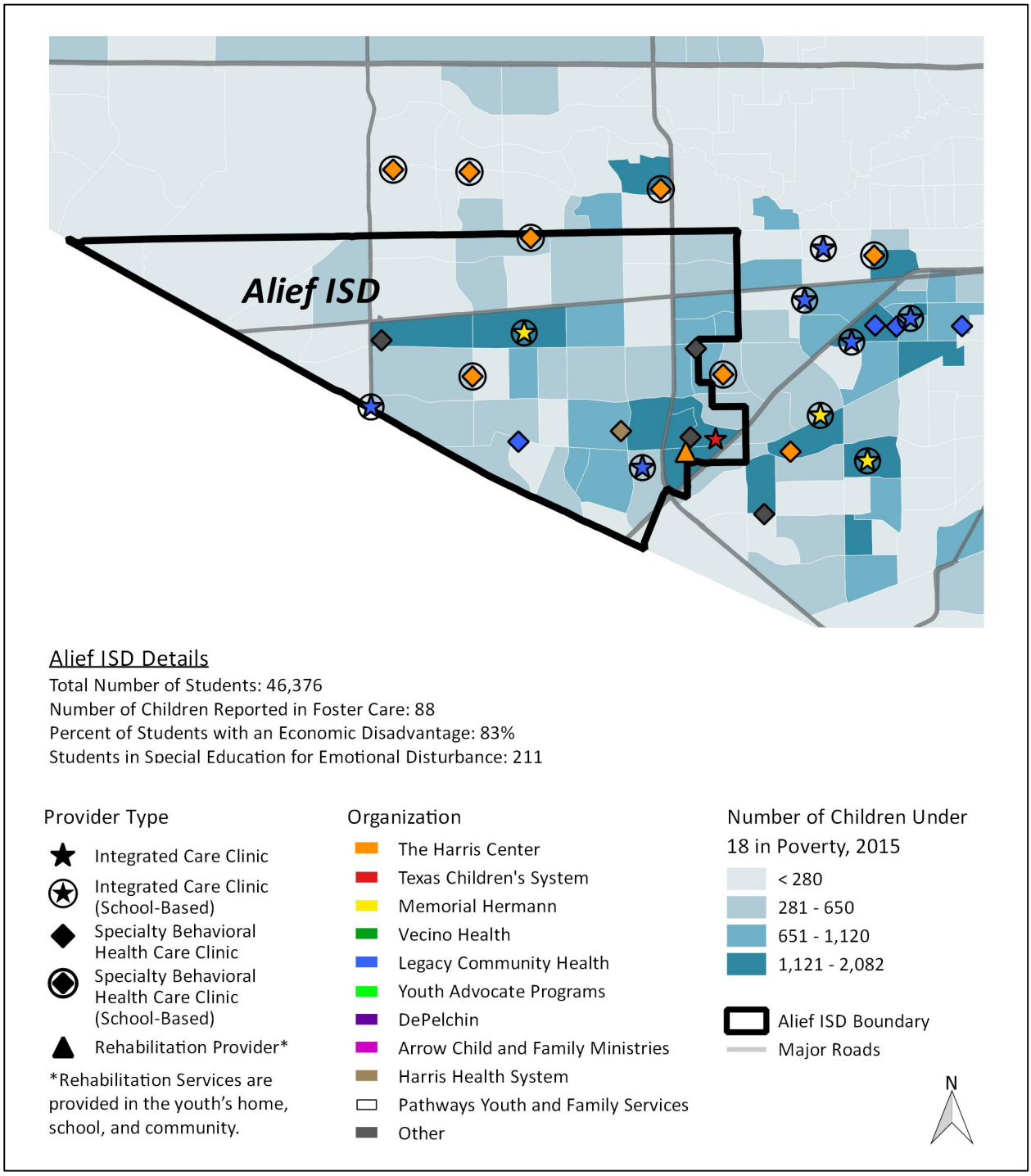
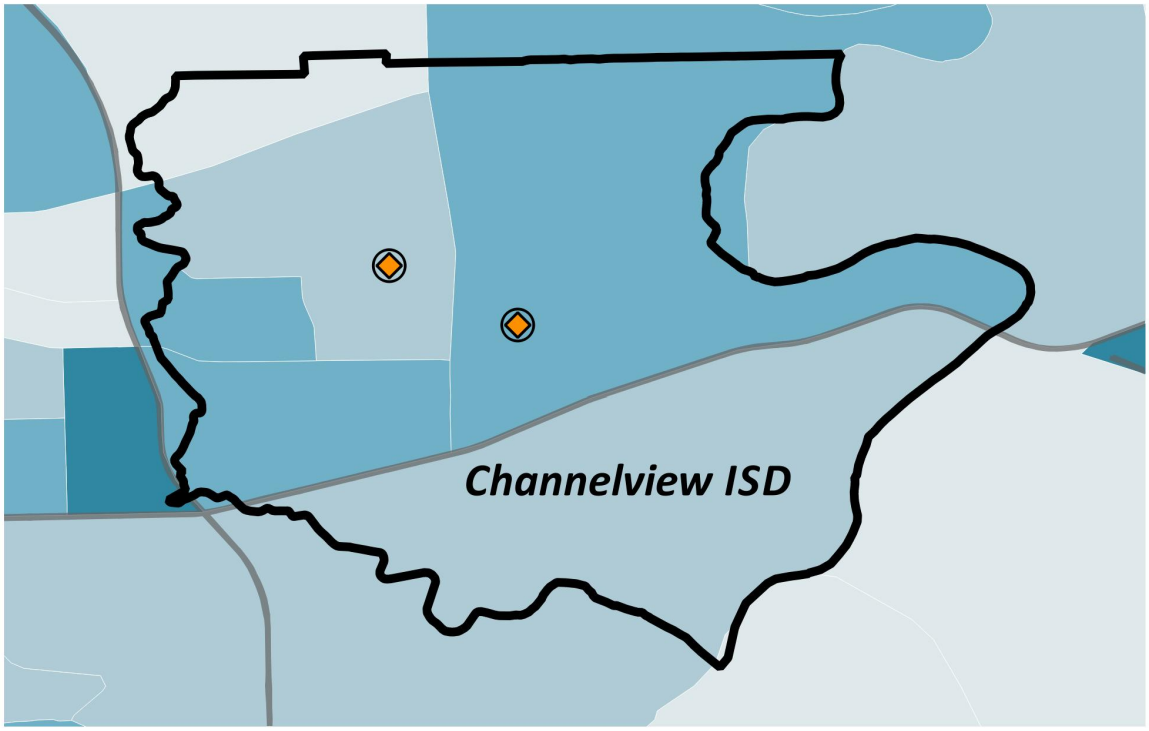


Figure 3: Channelview ISD



Channelview ISD Details
Total Number of Students: 9,529
Number of Children Reported in Foster Care: 28
Percent of Students with an Economic Disadvantage: 80%
Students in Special Education for Emotional Disturbance: 62

Provider Type
- Integrated Care Clinic
- Integrated Care Clinic (School-Based)
- Specialty Behavioral Health Care Clinic
- Specialty Behavioral Health Care Clinic (School-Based)
- Rehabilitation Provider*

*Rehabilitation Services are provided in the youth's home, school, and community.

Organization
- The Harris Center
- Texas Children's System
- Memorial Hermann
- Vecino Health
- Legacy Community Health
- Youth Advocate Programs
- DePelchin
- Arrow Child and Family Ministries
- Harris Health System
- Pathways Youth and Family Services
- Other

Number of Children Under 18 in Poverty, 2015
- < 280
- 281 - 650
- 651 - 1,120
- 1,121 - 2,082

- Channelview ISD Boundary
- Major Roads

N

Figure 4: Clear Creek ISD

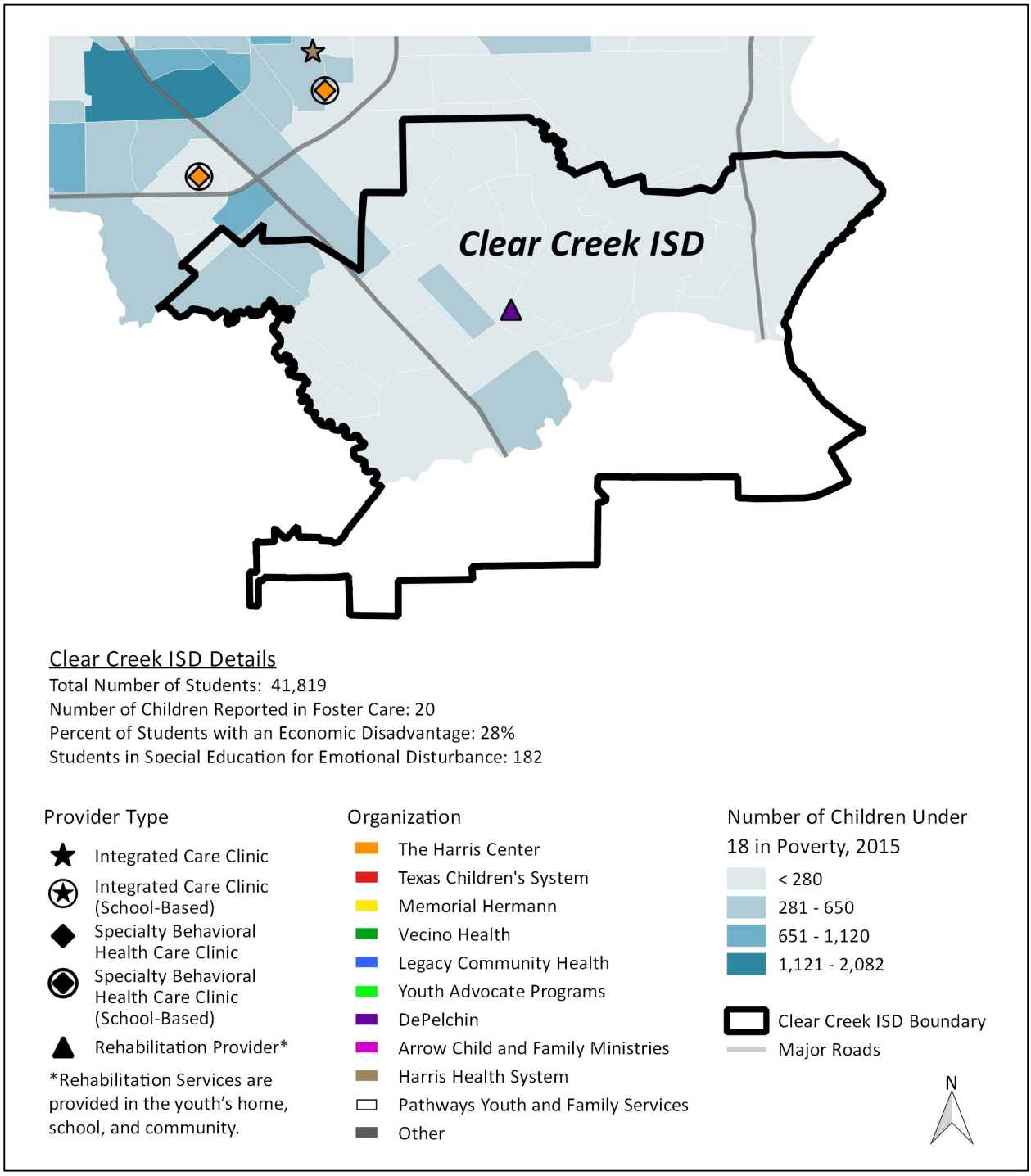
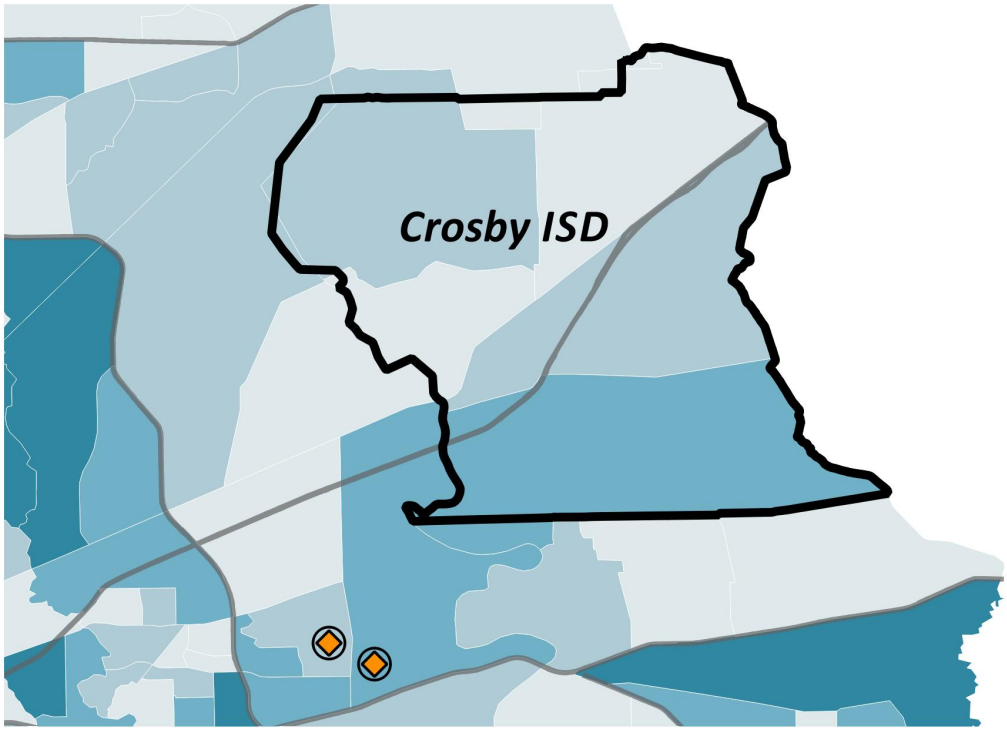


Figure 5: Crosby ISD



Crosby ISD Details

Total Number of Students: 5,992
Number of Children Reported in Foster Care: 11
Percent of Students with an Economic Disadvantage: 50%
Students in Special Education for Emotional Disturbance: 30

Provider Type

- Integrated Care Clinic
- Integrated Care Clinic (School-Based)
- Specialty Behavioral Health Care Clinic
- Specialty Behavioral Health Care Clinic (School-Based)
- Rehabilitation Provider*

*Rehabilitation Services are provided in the youth's home, school, and community.

Organization

- The Harris Center
- Texas Children's System
- Memorial Hermann
- Vecino Health
- Legacy Community Health
- Youth Advocate Programs
- DePelchin
- Arrow Child and Family Ministries
- Harris Health System
- Pathways Youth and Family Services
- Other

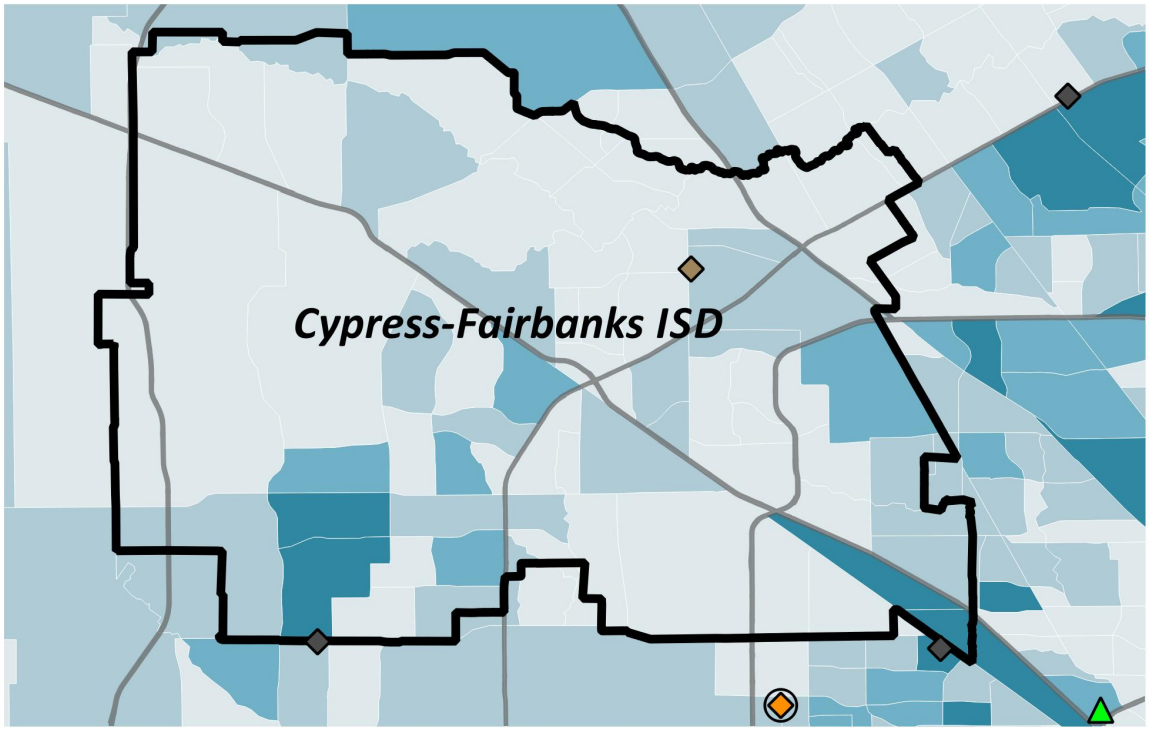
Number of Children Under 18 in Poverty, 2015

- < 280
- 281 - 650
- 651 - 1,120
- 1,121 - 2,082

- Crosby ISD Boundary
- Major Roads

N

Figure 6: Cypress-Fairbanks ISD



Cypress-Fairbanks ISD Details
Total Number of Students: 114,868
Number of Children Reported in Foster Care: 190
Percent of Students with an Economic Disadvantage: 50%
Students in Special Education for Emotional Disturbance: 507

Provider Type
- Integrated Care Clinic
- Integrated Care Clinic (School-Based)
- Specialty Behavioral Health Care Clinic
- Specialty Behavioral Health Care Clinic (School-Based)
- Rehabilitation Provider*

*Rehabilitation Services are provided in the youth's home, school, and community.

Organization
- The Harris Center
- Texas Children's System
- Memorial Hermann
- Vecino Health
- Legacy Community Health
- Youth Advocate Programs
- DePelchin
- Arrow Child and Family Ministries
- Harris Health System
- Pathways Youth and Family Services
- Other

Number of Children Under 18 in Poverty, 2015
- < 280
- 281 - 650
- 651 - 1,120
- 1,121 - 2,082

- Cypress-Fairbanks ISD Boundary
- Major Roads

N

Figure 7: Deer Park ISD

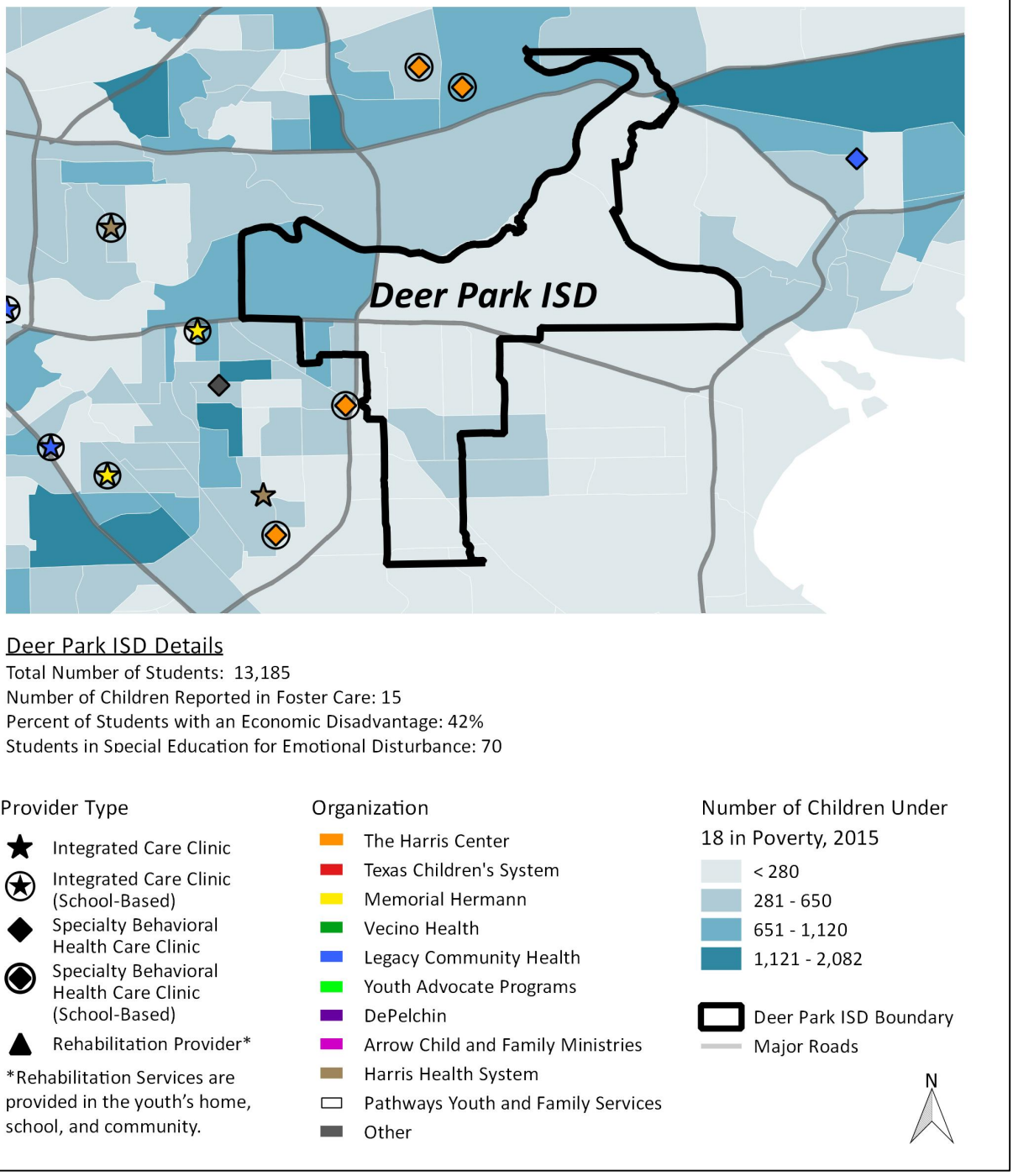
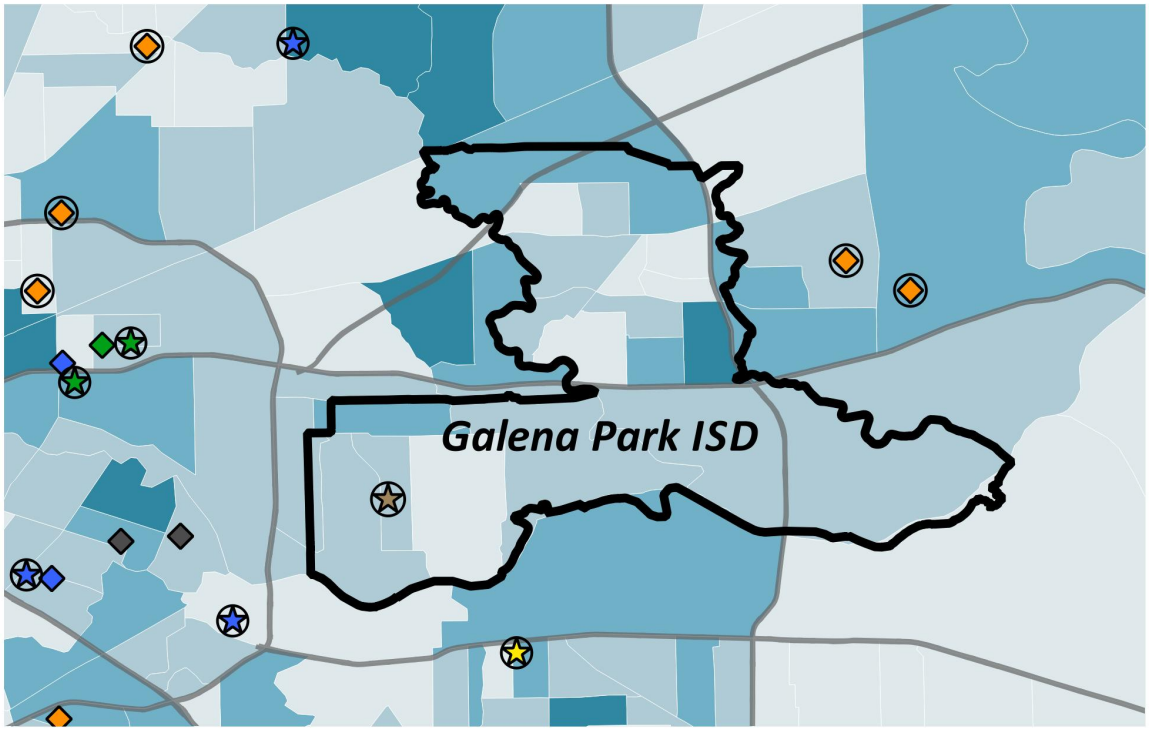


Figure 8: Galena Park ISD



Galena Park ISD Details

Total Number of Students: 22,784
Number of Children Reported in Foster Care: 48
Percent of Students with an Economic Disadvantage: 80%
Students in Special Education for Emotional Disturbance: 136

Provider Type

- Integrated Care Clinic
- Integrated Care Clinic (School-Based)
- Specialty Behavioral Health Care Clinic
- Specialty Behavioral Health Care Clinic (School-Based)
- Rehabilitation Provider*

*Rehabilitation Services are provided in the youth's home, school, and community.

Organization

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- DePelchin
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- Harris Health System
- Pathways Youth and Family Services
- Other

Number of Children Under 18 in Poverty, 2015

- < 280
- 281 - 650
- 651 - 1,120
- 1,121 - 2,082

- Galena Park ISD Boundary
- Major Roads

N

Figure 9: Goose Creek ISD

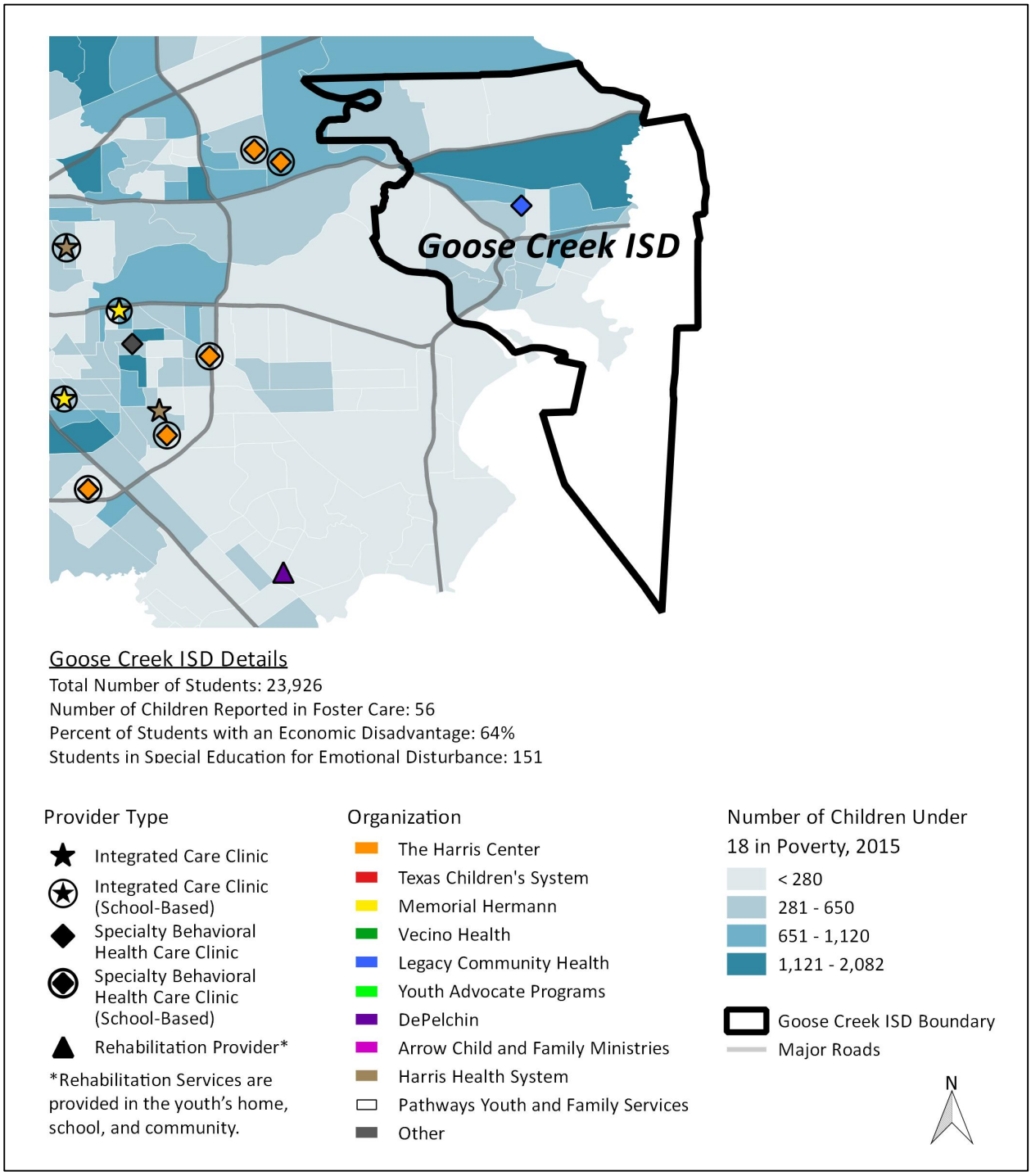


Figure 10: Houston ISD

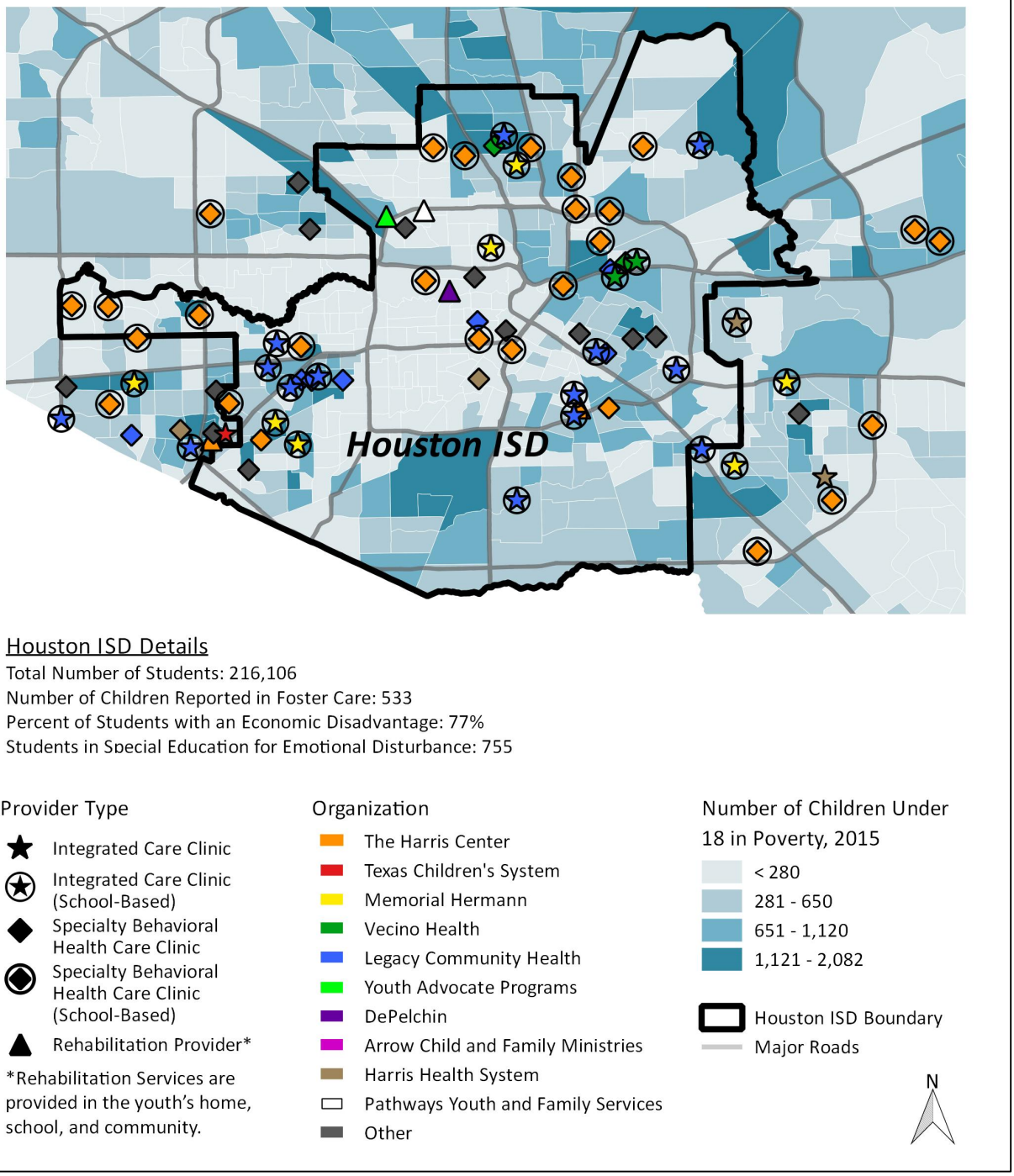


Figure 11: Huffman ISD

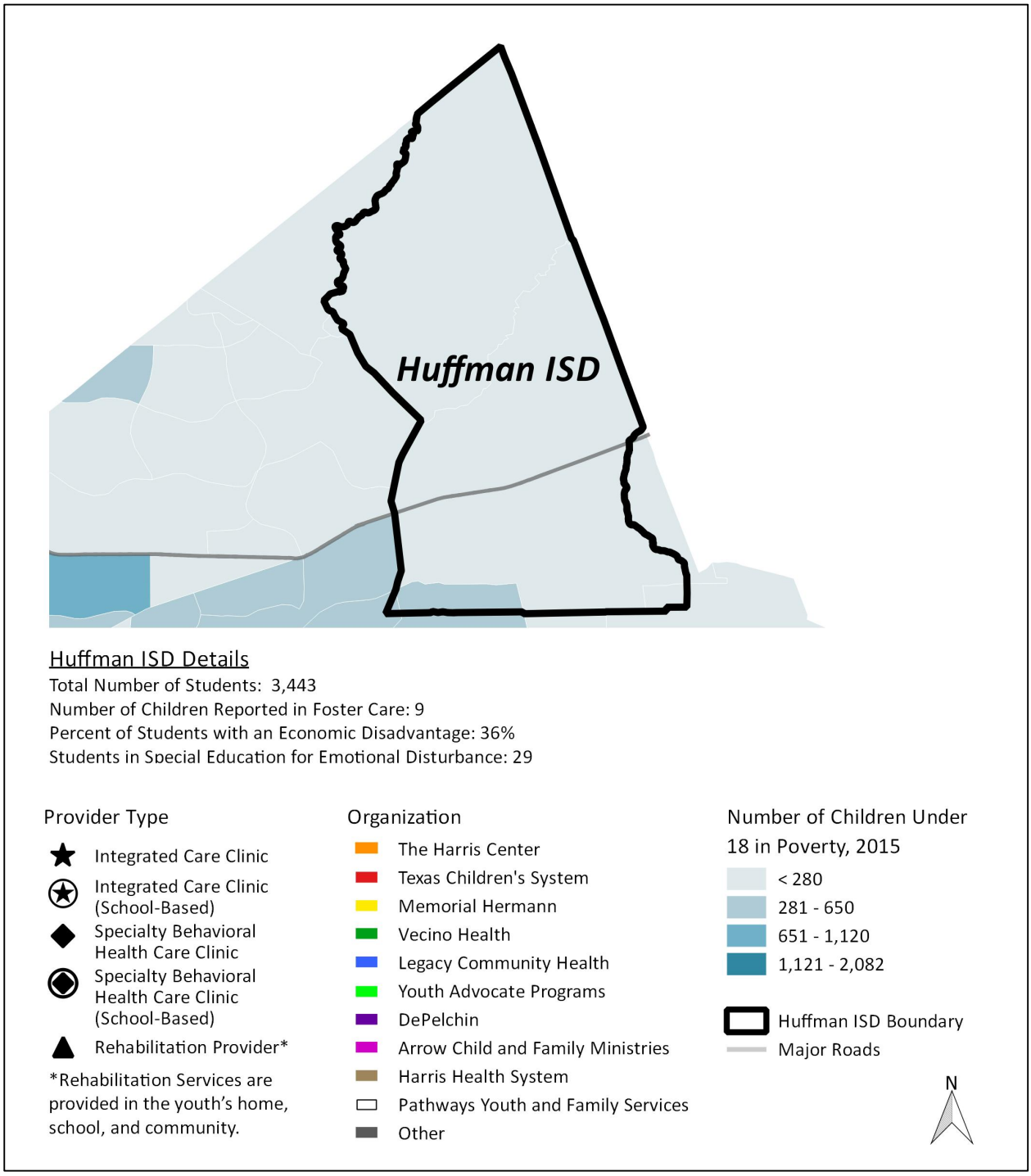


Figure 12: Humble ISD

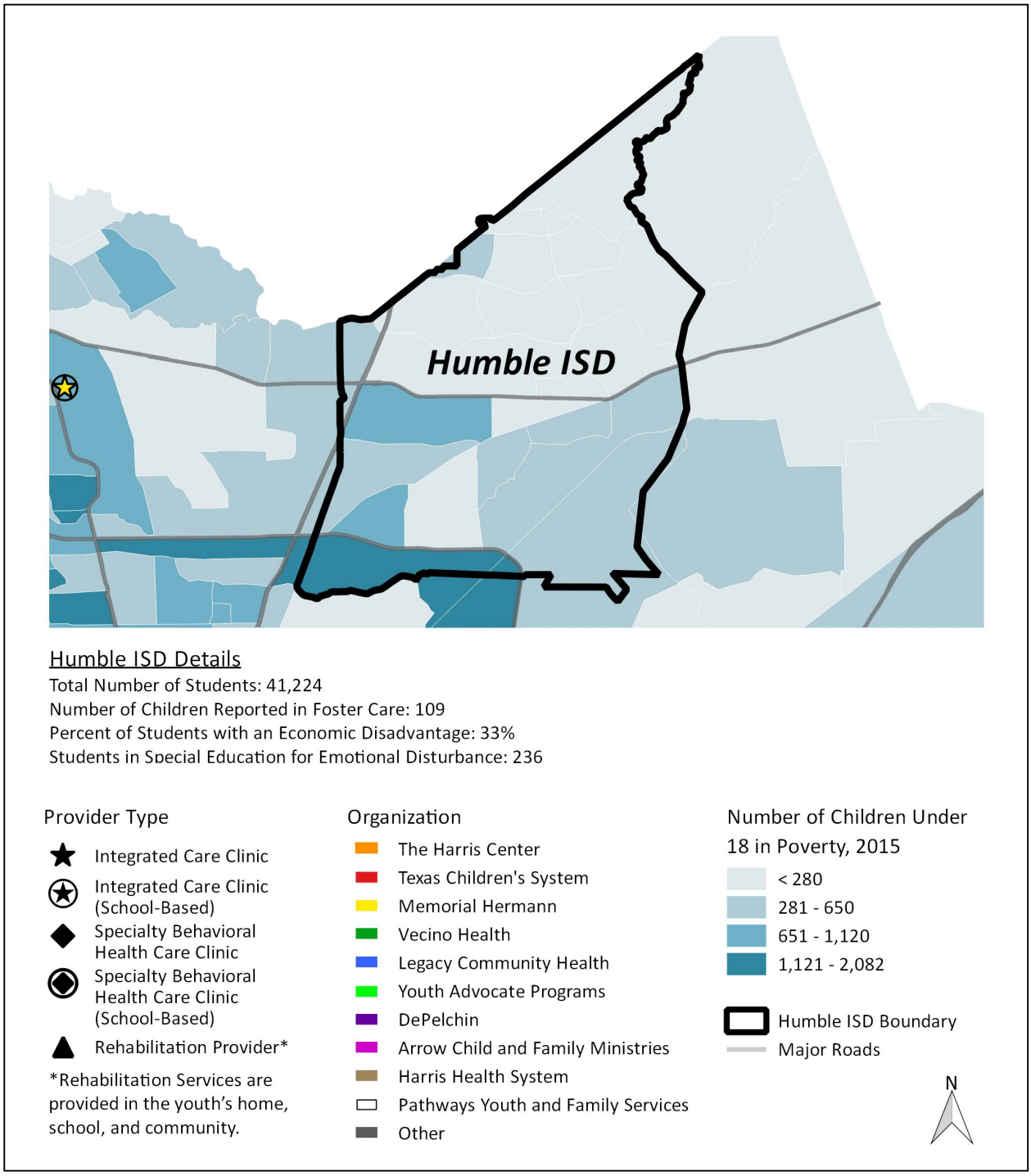


Figure 13: Katy ISD

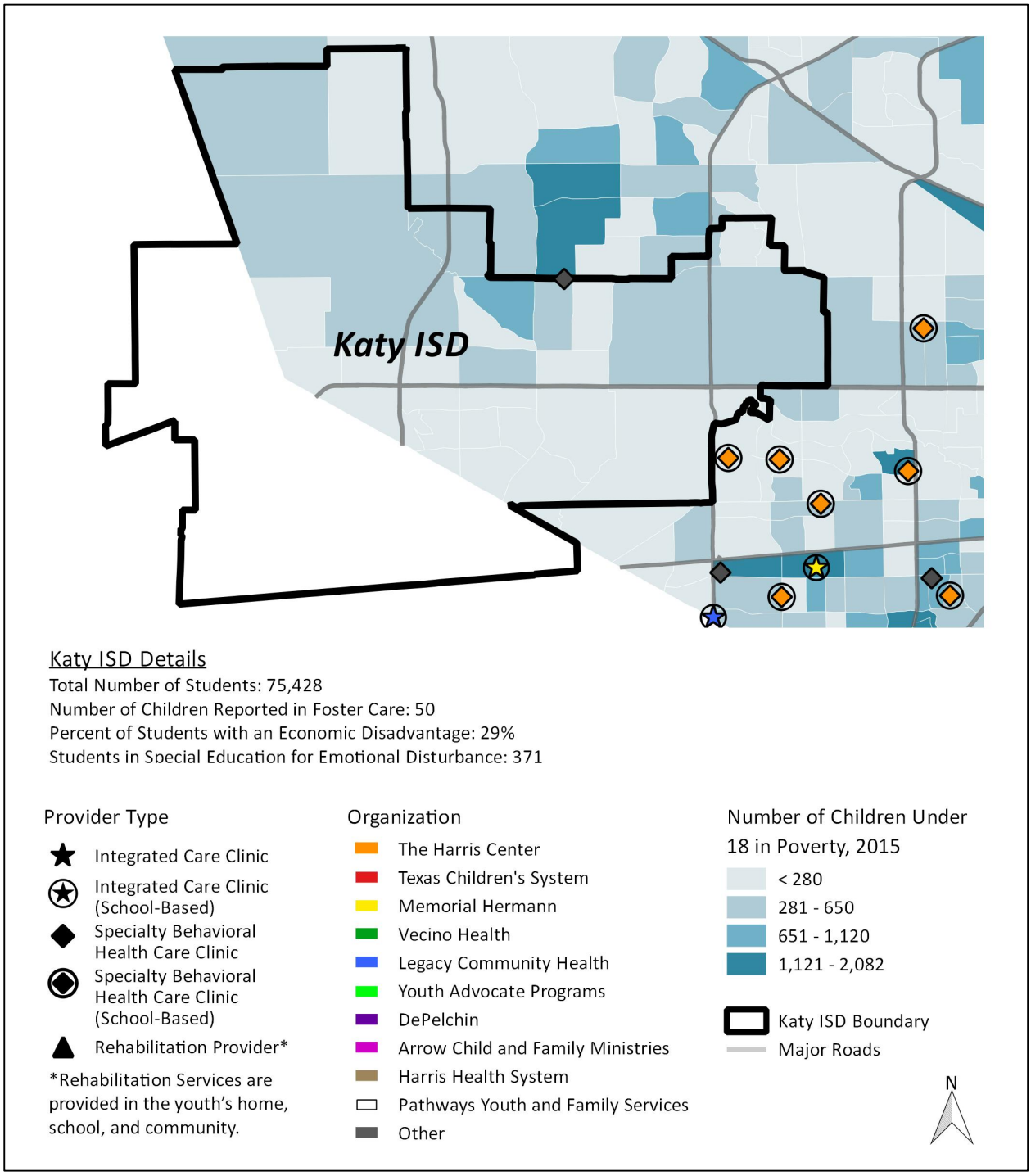


Figure 14: Klein ISD

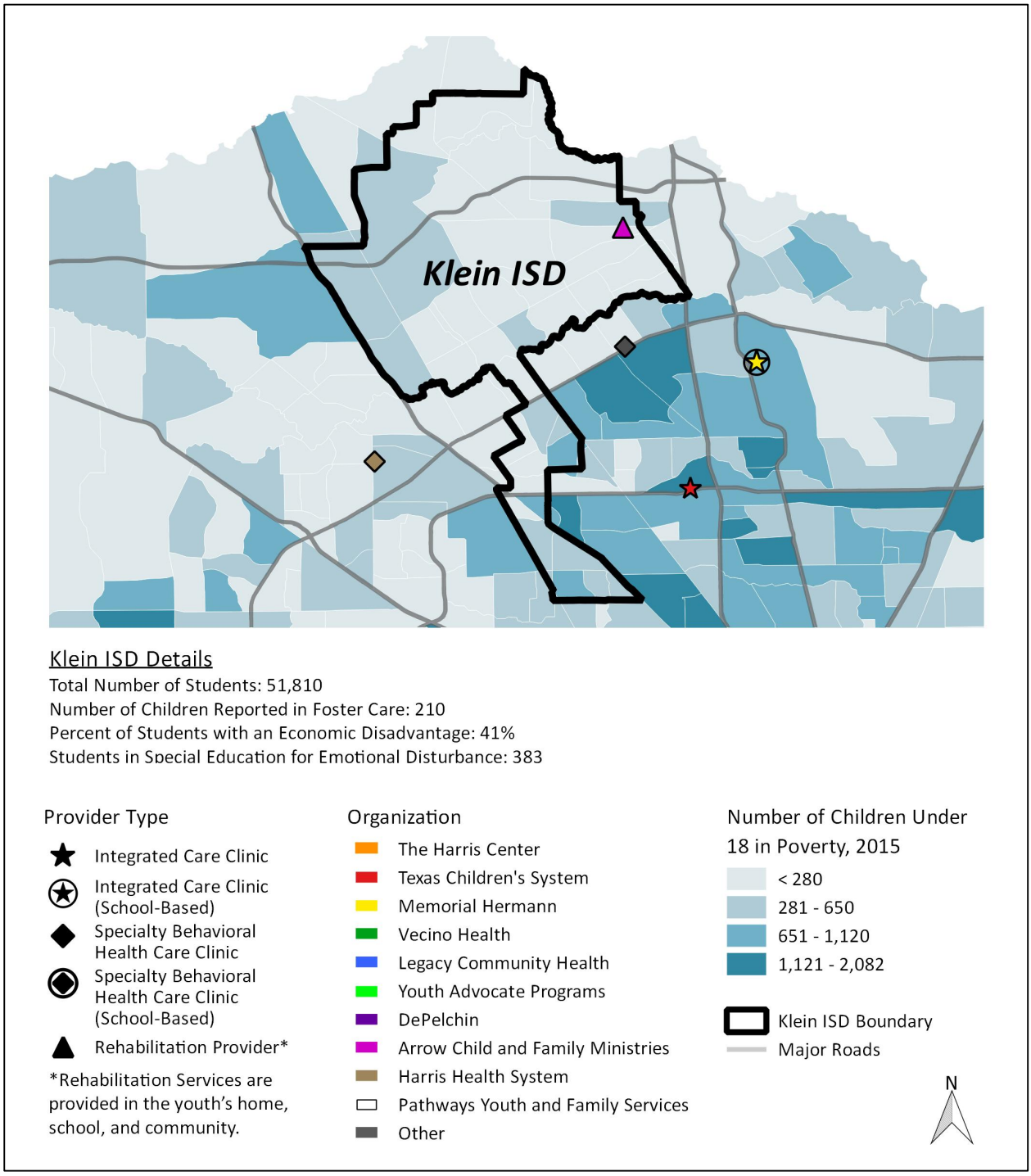


Figure 15: La Porte ISD

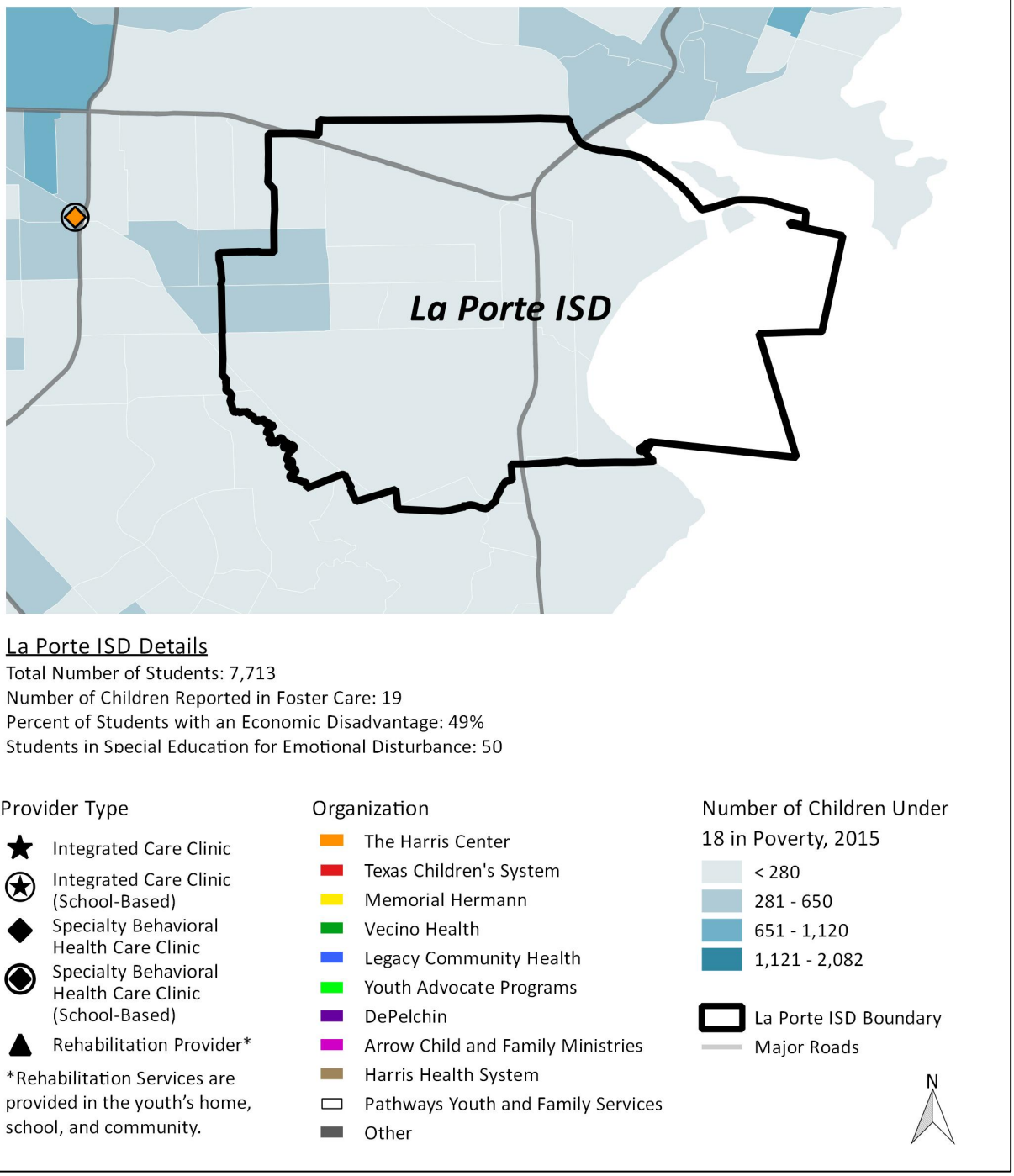
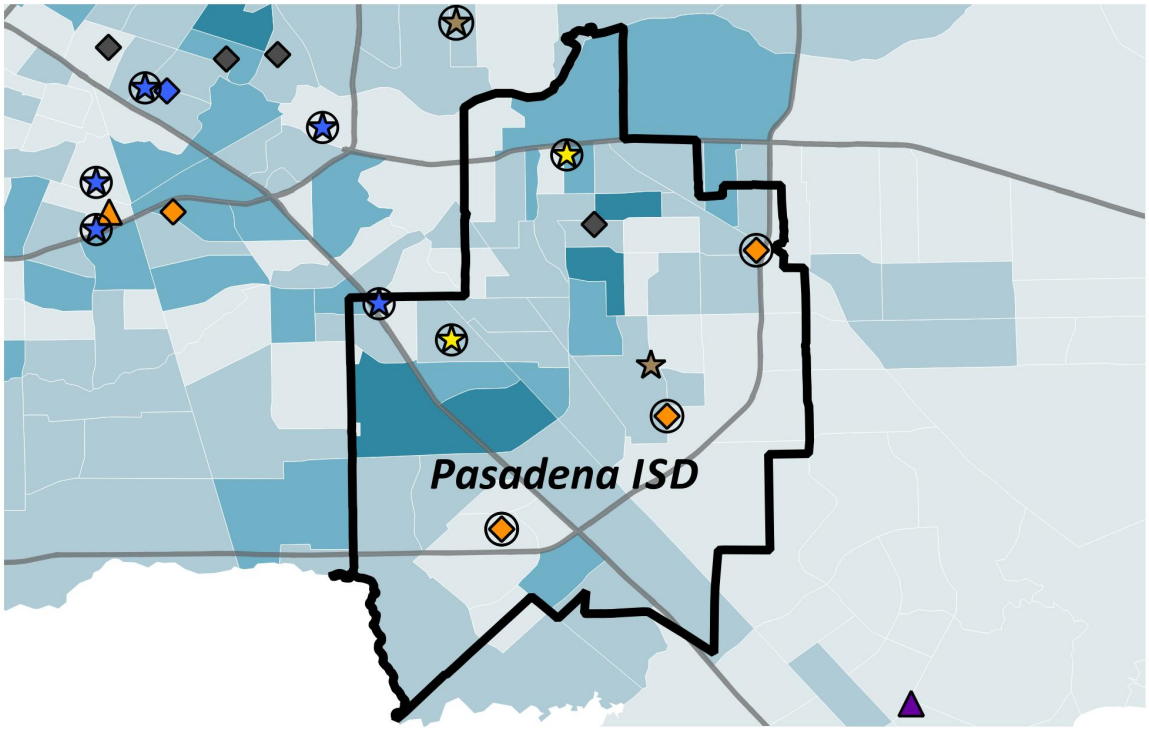


Figure 16: Pasadena ISD



Pasadena ISD Details

Total Number of Students: 56,282
Number of Children Reported in Foster Care: 57
Percent of Students with an Economic Disadvantage: 78%
Students in Special Education for Emotional Disturbance: 287

Provider Type

- Integrated Care Clinic
- Integrated Care Clinic (School-Based)
- Specialty Behavioral Health Care Clinic
- Specialty Behavioral Health Care Clinic (School-Based)
- Rehabilitation Provider*

*Rehabilitation Services are provided in the youth's home, school, and community.

Organization

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- Pathways Youth and Family Services
- Other

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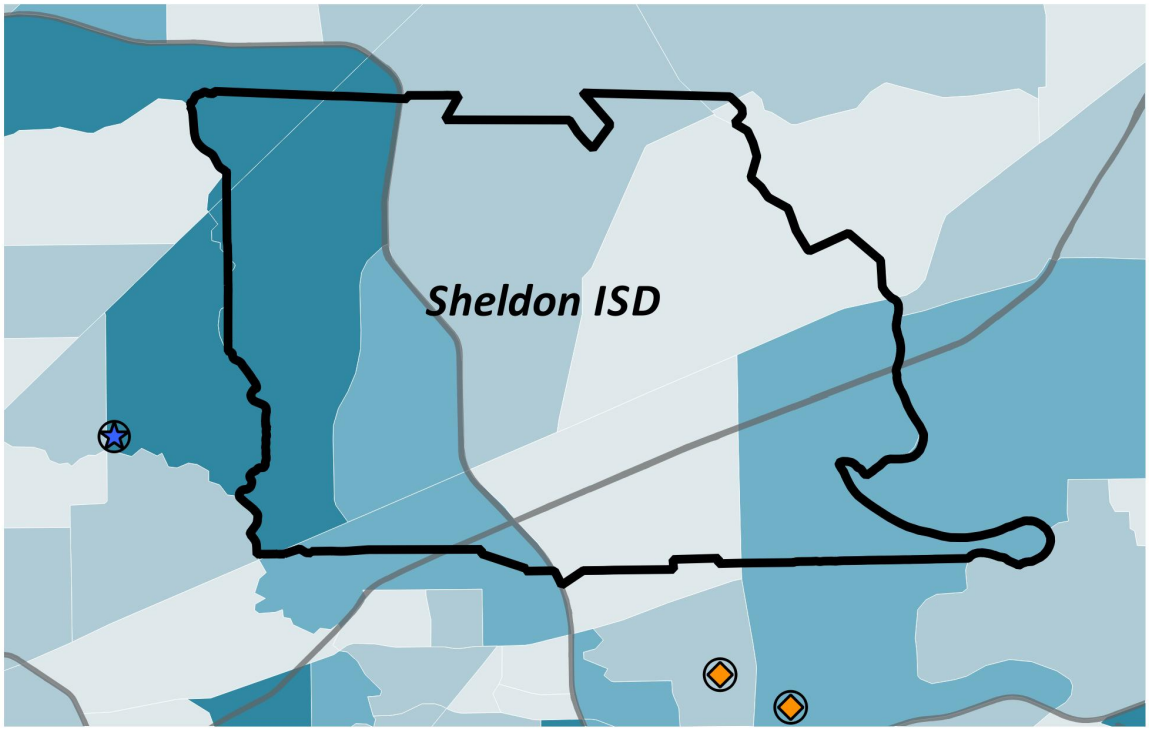
- < 280
- 281 - 650
- 651 - 1,120
- 1,121 - 2,082

- Pasadena ISD Boundary
- Major Roads

N

Figure 17: Sheldon ISD



Sheldon ISD Details

Total Number of Students: 8,884
Number of Children Reported in Foster Care: 18
Percent of Students with an Economic Disadvantage: 79%
Students in Special Education for Emotional Disturbance: 50

Provider Type

- Integrated Care Clinic
- Integrated Care Clinic (School-Based)
- Specialty Behavioral Health Care Clinic
- Specialty Behavioral Health Care Clinic (School-Based)
- Rehabilitation Provider*

*Rehabilitation Services are provided in the youth's home, school, and community.

Organization

- The Harris Center
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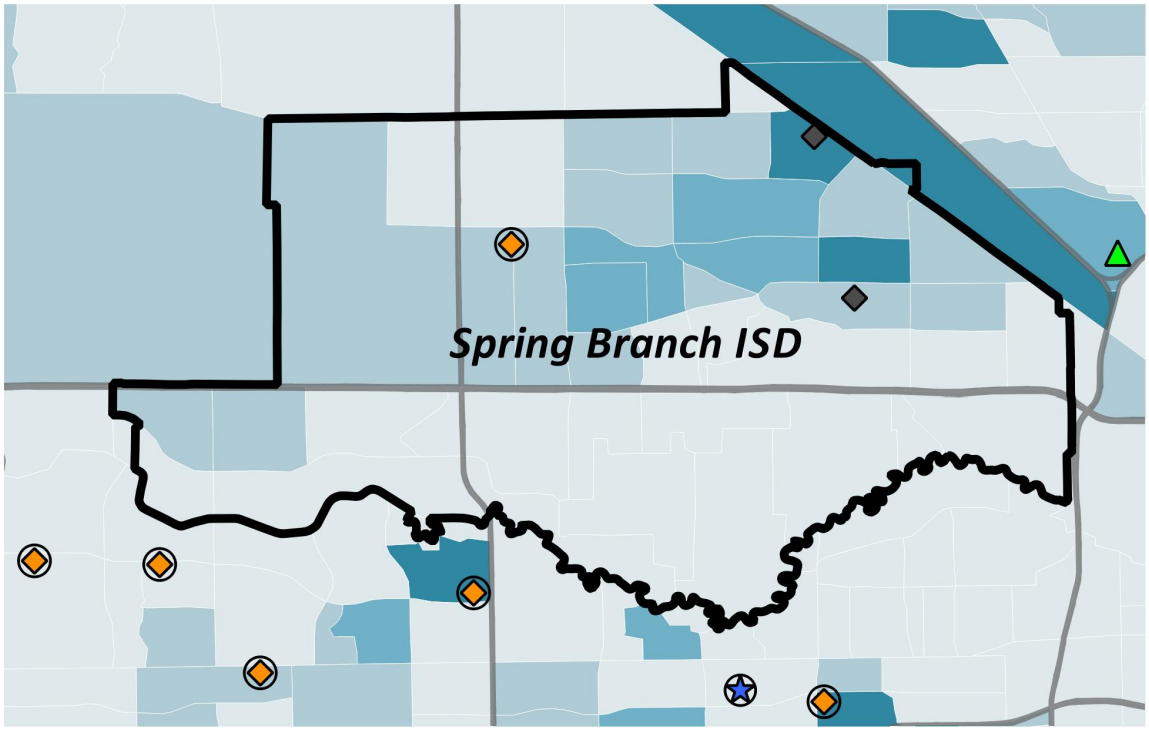
- 281 - 650
- 651 - 1,120
- 1,121 - 2,082

- Sheldon ISD Boundary
- Major Roads

N

Figure 18: Spring Branch ISD



Spring Branch ISD Details
Total Number of Students: 35,079
Number of Children Reported in Foster Care: 30
Percent of Students with an Economic Disadvantage: 56%
Students in Special Education for Emotional Disturbance: 109

Provider Type
- Integrated Care Clinic
- Integrated Care Clinic (School-Based)
- Specialty Behavioral Health Care Clinic
- Specialty Behavioral Health Care Clinic (School-Based)
- Rehabilitation Provider*

*Rehabilitation Services are provided in the youth's home, school, and community.

Organization
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- 281 - 650
- 651 - 1,120
- 1,121 - 2,082

- Spring Branch ISD Boundary
- Major Roads

N

Figure 19: Spring ISD

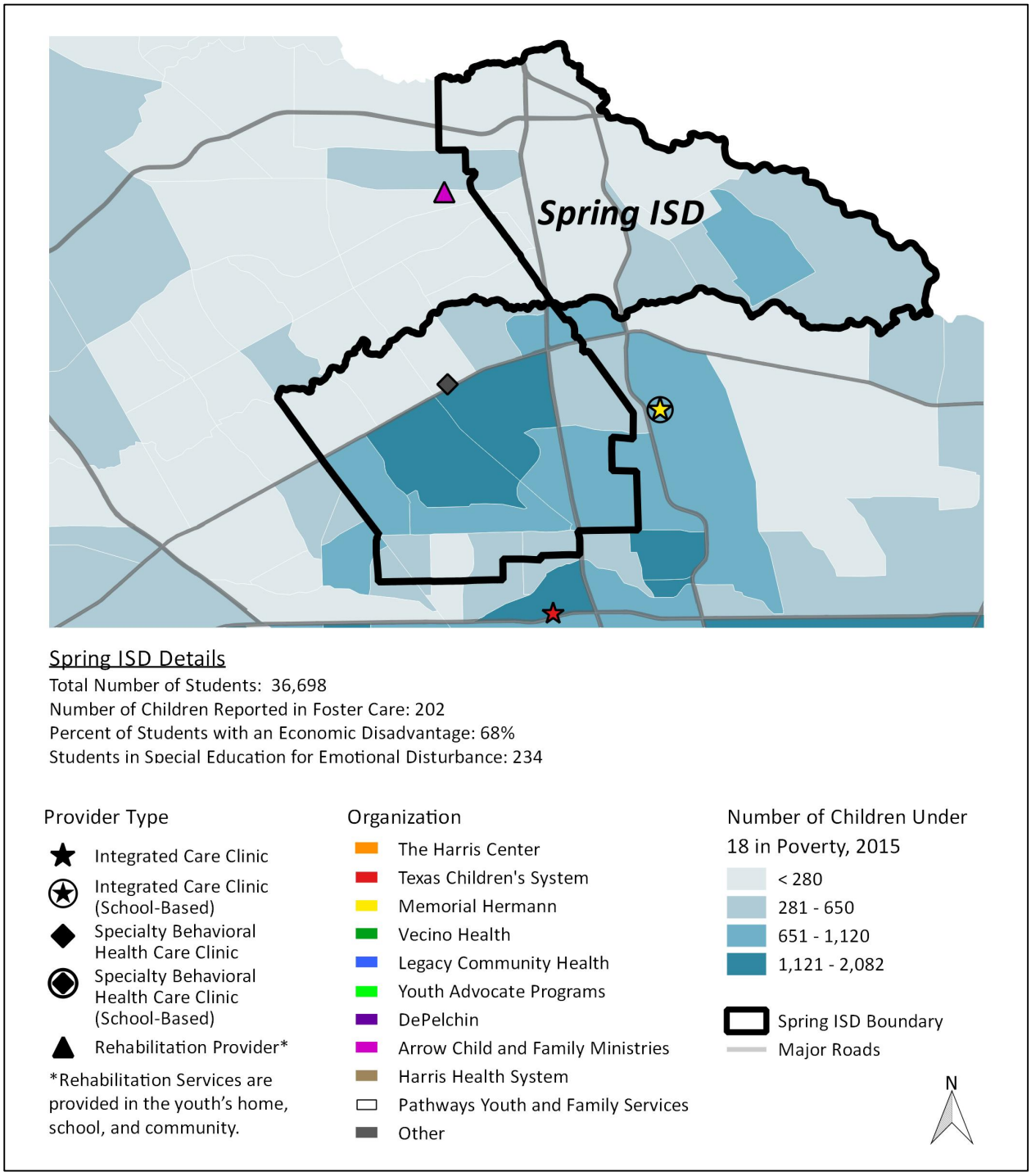

Figure 20: Tomball ISD

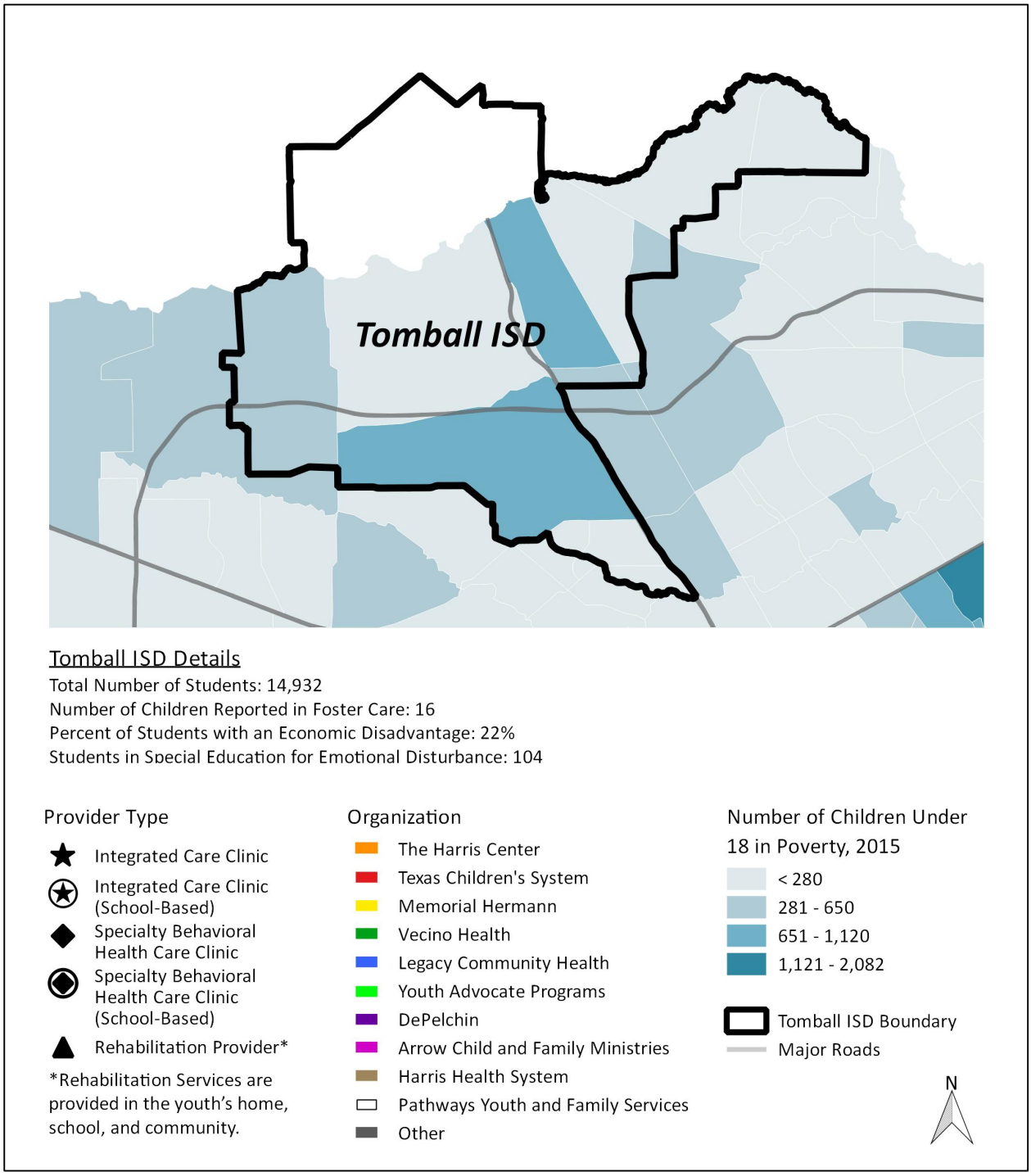

Figure 21: Waller ISD