

# Orange County Behavioral Health Systems Analysis

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We also want to thank all of the family members, direct care providers, advocates, school representatives, service coordinators, administrators, and behavioral health system leaders who are dedicated to improving services for youth in the County. This report represents a culmination of their collective passion and we are hopeful that it will be used to continue the positive momentum toward service excellence.

## **Table of Contents**

<b>Acknowledgements .....</b>	<b>1</b>
<b>Table of Contents .....</b>	<b>2</b>
<b>Introduction.....</b>	<b>3</b>
<b>System Description.....</b>	<b>3</b>
<b>Approach and Methodology.....</b>	<b>4</b>
A Disclaimer... ..	9
<b>System Findings .....</b>	<b>10</b>
Provider Inventory Overview .....	10
Good and Modern System Grid .....	24
Quality Service Review (QSR).....	29
<b>System Analysis.....</b>	<b>40</b>
Strengths of the Orange County Behavioral Health System for Youth .....	40
Weaknesses of the Orange County Behavioral Health System for Youth.....	44
Opportunities for the Orange County Behavioral Health System .....	56
Threats to the Orange County Behavioral Health System .....	57
<b>Summary of Recommendations.....</b>	<b>58</b>
<b>References .....</b>	<b>61</b>

## Introduction

This report presents the findings of the Orange County, North Carolina, Behavioral Health System analysis which focuses on services to individuals ages 0 – 25. This report identifies system strengths, weaknesses, opportunities, and threats for mental health, substance use, and intellectual developmental disability services.

The analysis conducted by NRI for the Orange County Health Department focused on three deliverables.

- Deliverable 1: Create and distribute an inventory of existing mental health, substance use, and, intellectual/developmental disability resources in Orange County serving individuals between the ages of 0 to 25.
- Deliverable 2: Create a system map of resources and identify the strengths and weaknesses of Orange County’s behavioral health system and make recommendations for improvement.
- Deliverable 3: Work with the two county school systems and conduct a Behavioral Health Systems of Care assessment.

## System Description

Like many states, mental health and substance use services are a major policy issue in North Carolina.<sup>1</sup> Over 15 years ago North Carolina re-modeled its behavioral healthcare system into a Medicaid managed care system.<sup>1</sup> Currently, North Carolina is implementing an integrated physical and behavioral health Medicaid managed care program. This Medicaid program change is often referred to as the Medicaid Transformation Initiative. While the behavioral health services are already ‘managed’ in the Medicaid program, the Medicaid Transformation Initiative is a huge change for primary care providers according to key informant interviews. The concept behind the Medicaid Initiative is to integrate primary and behavioral health care and provide *whole health* services to individuals in need of health care.

Currently, Medicaid behavioral health services in Orange County are managed through Cardinal Innovations Healthcare, the Managed Care Organization (MCO). Cardinal Innovations Healthcare receives a per member/per month fee to manage each eligible beneficiary’s behavioral health care. There are no co-pays for those under 21 in the Medicaid program. For those not eligible for Medicaid, major private insurance companies in Orange County are Blue Cross Blue Shield of North Carolina, Aetna, Cigna, and United Healthcare.<sup>2</sup>

North Carolina's children's health insurance program (CHIP) is called Healthchoice.<sup>3</sup> This program's purpose is to fill the insurance gap for families that do not qualify for Medicaid and do not have access to employer insurance coverage for their children. The legislature sets the income eligibility for this program, and currently, the limit is based on a family’s income up to 133% of the poverty limit. There is an enrollment fee, and there are co-pays in the Healthchoice program.<sup>3</sup> According to key informant interviews, Healthchoice also covers individuals with intellectual/ developmental disabilities (IDD) that are not eligible for Medicaid. Beacon Health is the manager of this program. Children can go back and forth from Healthchoice to regular state plan Medicaid program, dependent upon their family’s income levels.

North Carolina’s Medicaid program has a 1915c Home and Community Based Waiver for individuals with IDD, called North Carolina Innovations<sup>i</sup>. It covers individuals who qualify, with no age minimums or maximums. The current five-year waiver began August 1, 2013 and is currently in an extension with the new Waiver expected to begin July 1, 2019. The waiver’s total statewide slot capacity begins with 12,488 in year one and ends with 12,738 slots in year five. This increase means that for the entire state, 250 slots are added over five year periods.<sup>4</sup>

Information from key informants and other sourced material indicate that in the IDD area, children financially qualify for the Medicaid Innovations waiver as a ‘family of 1’. This means that their family’s income does not count toward eligibility. According to Disability Rights of North Carolina<sup>5</sup>, to be eligible for the Medicaid Innovations waiver the child/adolescent has to need Intermediate Care Facility level treatment “have a diagnosis of an intellectual and/or developmental disability or a condition that results in impairment of general intellectual functioning or adaptive behavior similar to that of persons with intellectual disabilities”, show symptoms of the intellectual/developmental disorder before the age of 22, the intellectual/developmental disorder is likely to be permanent, and the intellectual/developmental disorder results in severely impaired functioning (Disability Rights North Carolina, 2017, pg. 1). It should be noted that Key Informants suggested that it is possible for undocumented immigrants to qualify for Medicaid. However, they must meet the requirements listed above. If not, then they cannot qualify.

Key Informants indicate that Orange County IDD health services are also managed through Cardinal Innovations Healthcare, the Managed Care Organization (MCO) operating as a prepaid health plan. The MCO is responsible for approving services to all waiver beneficiaries in their respective geographic catchment areas, most of which cover multiple counties. Beneficiaries in the waiver have a care coordinator who assists them in developing an Individual Support Plan (ISP), ensuring the beneficiary's health and safety needs are met, and that services and supports are provided in the most integrated setting.

## **Approach and Methodology**

Specific information gained (such as target client groups served, specialized programming, funding supports, and payment considerations) from the following list of information sources was used to analyze the degree to which Orange County offers a complete and robust behavioral health system. Throughout this report, the term “behavioral health” collectively refers to mental health, substance use, and intellectual/ developmental disabilities, unless indicated otherwise. The project’s approach is rooted in the application of the following tools:

1. Online surveillance
2. Provider survey

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<sup>i</sup> The North Carolina Innovations waiver includes 20 different types of services: Community navigator services, community networking services, day support services, personal care services, residential support services, respite services, supported employment services, financial guidance support services, assistive technology services, community living and community support services, community transition services, crisis services, home modification services, in-home intensive services, in-home skill building services, individual goods and individual services, natural supportive education services, specialized consultation services, supported living services, and vehicle modification services (North Carolina Department of Health and Human Services, 2017, p. 41).

3. Focus group
4. Key Informant interviews
5. Quality System Review (QSR)
6. Objective measurement of resources
7. Geographic information system (GIS) resource mapping
8. Social Determinant of Health (SDH) analysis

NRI met with the behavioral health stakeholders' workgroup monthly to identify issues, provide updates on the progress of the study, and receive feedback on the project's progress. The workgroup membership included: the Orange County Health Director, the Orange County Health Department Financial and Administrative Services Director, the Deputy Orange County Manager, the University of North Carolina's Hospital Emergency Department Director, the Senior Community Executive at Cardinal Innovations Healthcare, the Regional Network Manager-FC and OPC of Cardinal Innovations Healthcare, the Chapel Hill Carrboro City Schools Director of Systems of Care, the Orange County Schools Director of Student Support, and several members of the Orange County Health Department.

A brief description of each methodology that was used is provided below.

### *Provider Inventory*

The provider inventory is an excel spreadsheet comprised of information on behavioral healthcare providers serving Orange County residents between the ages of 0 and 25. The inventory was compiled using two sources of information: Online Surveillance and a Provider Survey.

### *Online Surveillance*

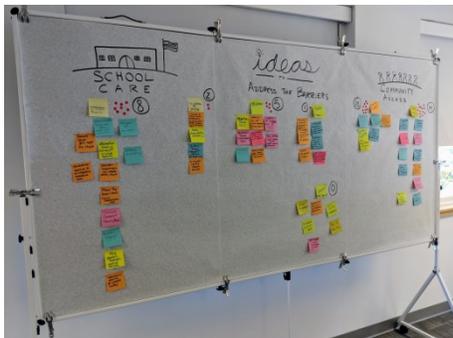
A comprehensive review of information found online was used to develop an inventory of existing behavioral health providers that serve individuals between the ages of 0 and 25 with behavioral health issues. The purpose of the inventory is to provide a comprehensive listing of service providers for public distribution and to better understand behavioral health resources in Orange County. A total of 143 agency and 175 independent providers' information is detailed in this inventory (for a total of 318). Detailed information on the online surveillance protocol is found in Appendix B.

### *Provider Survey*

An agency/organization survey and a clinical/independent provider survey were developed and distributed in June 2018. A total of 83 surveys were returned. Forty-seven of the returned surveys were integrated into the inventory; the remaining surveys were returned due to invalid addresses and were thus removed from the final provider inventory. The provider survey was intentionally designed to gain a thorough understanding of the types of mental health (MH), substance use disorder (SUD) and intellectual/developmental disability (IDD) services that are available to young Orange County residents. Detailed information on the survey protocol is found in Appendix C.

### *Focus Group*

Simultaneous with the development and authentication of the inventory and survey, focus groups were conducted to gain a more detailed understanding of the barriers and gaps in services faced by individuals between the ages of 0 and 25 in Orange County. The focus group session lasted three-hours and was held in Chapel Hill, North Carolina on April 20<sup>th</sup>, 2018. The attendees



included key Orange County behavioral health stakeholders from the University of North Carolina Schools of Medicine, Chapel Hill Carrboro City Schools (CHCCS), National Alliance on Mental Health (NAMI), United Way of North Carolina/North Carolina 211, Orange County Community Collaborative, Cardinal Innovations Healthcare, Kid Scope, Orange County Criminal Justice Resources Department, University of North Carolina Medical Center, and the Orange County Department of Social Services. Information on the focus group process is found in Appendix D.

### *Key Informant Interviews*

Several behavioral health stakeholders that could not attend the focus group were interviewed separately in late July/early August 2018. The individuals interviewed represent service providers, advocacy agencies, and regulatory agencies. The protocol for these interviews was based on information gleaned from the focus group session. Those interviewed were informed about the barriers identified in the 2016 Assessment of Community Assets and Needs in Orange County and during the focus group session. The key informants were asked if they agreed with the barriers and if there were additional barriers not mentioned. They were also asked about methods/actions that could be taken to minimize these barriers. Finally, the key informants were asked about the North Carolina (NC) Medicaid Transformation Initiative and their opinion on potential impact to service access for individuals residing in Orange County between the ages of 0 and 25.

### *Quality Service Review*

The Quality Service Review (QSR) process<sup>6,7</sup> was used with both the Chapel Hill Carrboro City Schools and Orange County Schools. The QSR is based on a body of work conducted by Ray Foster, PhD, Ivor Groves, PhD, Paul Vincent, MSW, George Taylor, MA, and Kate Gibbons, MSW, LICSW. NRI received approval from the Director of the Child Welfare Group (copyright holder) to use the QSR tool for Orange County, North Carolina.

The QSR is based on a set of concepts, principles and strategies related to organizational learning and positive action taken to improve practice in human service agencies that serve children and youth. The review protocol utilized by the QSR was developed by Human Systems and Outcomes, Inc. (HSO). The protocol was designed to focus on domains within the child's life and to examine the practices that are utilized by the public and private agencies that are integral to that child's or youth's life (See Appendix E). The findings from QSR analyses provide in-depth case reviews, appraise whether or not the children/adolescents are benefiting from the services that they are receiving, and examine whether or not these services are being coordinated

effectively. To assess the progress that a system has made, multiple QSRs are typically conducted over extended periods of time (e.g. annually).

Time constraints limited the number of QSRs that could be conducted. For this study, the QSR protocol was administered to six randomly selected children (three from each school system), and is thus considered a pilot project. The three QSR reviewers and eight shadows<sup>ii</sup> interviewed all of the target child/adolescents, their parents, school personnel, and other service providers or people important to these children/adolescents over the course of a week. In total, the three QSR reviewers, and eight shadows<sup>iii</sup>, conducted 44 interviews and five observations.

### **Objective Measurement of Resources**

In 2011, the Substance Abuse Mental Health Service Administration (SAMHSA) developed a report entitled *Description of a Good and Modern Addictions and Mental Health Service System*<sup>iv</sup>.<sup>8</sup> The report lists the prevention, treatment, and recovery services that should be incorporated in a comprehensive system of care along with the care coordination and support services that are necessary to help individuals navigate complex care systems.<sup>8</sup> For this project, the *Good and Modern* listing was adjusted to incorporate IDD services as well. This adjusted service grid is found in Appendix F. This description provides the objective measurement for the Orange County mental health, substance use, and IDD services for individuals between the ages of 0 and 25. Each provider was assessed for the services they provide and where their services are categorized within a *Good and Modern* system. In the end, it helps paint a picture of where Orange County's system has strengths and where there are opportunities for filling gaps in care.

### **GIS Mapping**

Throughout this paper geographic information system (GIS) maps are used to visually depict the distribution of certain characteristics (e.g. race/ethnicity, age, gender of residents) of the population (See the *Orange County Demographics* Section) and of the provision of behavioral health services (See the *Provider Inventory Overview* Section) across the county. Each map was created using GIS software. To produce these maps, data was compiled from a variety of sources including: 2012-2016 American Community Survey<sup>9</sup>, 2018 TIGER/Line Shapefiles<sup>10</sup>, Orange County Tax Administration's Land Records/GIS Division<sup>11</sup>, Chapel Hill Open Data<sup>12</sup>, Durham City and County Geospatial Data<sup>13,14</sup>, and the Environmental Systems Research Institute's National Geographic Basemap<sup>15</sup>. The final products allow readers to visualize the dispersion of Orange County's residents based on different demographic factors (e.g. race/ethnicity, age, gender) and the placement/location of various types of services (e.g. transportation, behavioral health services).

### **Social Determinants of Health**

Roughly 10% to 20% of health determinants—including behavioral health determinants—derive from medical care, while social, behavioral, and environmental factors account for the remaining 80% to 90% of health outcomes.<sup>16,17,18,19</sup> A *Good and Modern* behavioral health system

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<sup>ii</sup> Three Orange County residents volunteered to be trained to become QSR reviewers.

<sup>iii</sup> All shadows were from the local area.

<sup>iv</sup> Referenced as the "Good and Modern" throughout the remainder of this report.

incorporates a continuum of social support services that include employment, housing, and self-help alongside clinical treatment. By incorporating a continuum of Orange County information on health determinants in this analysis, we see a comprehensive view of the factors impacting children and affecting their behavioral health status results.



## **A Disclaimer...**

### ***Provider Inventory***

There were several limitations associated with analyzing the data in the provider inventory. The data collected from the online surveillance may be outdated. It is also possible that some providers that operated in Orange County were missed. The researchers tried to account by requesting Orange County workgroup members to examine the inventory. None of the members indicated that the inventory was missing providers or inaccurate. Nonetheless, this is a limitation that should be considered. The provider survey was another method of verifying the accuracy of the inventory that was generated by the online surveillance component of the study. While the information that was derived from the survey was helpful, only a small number of providers responded. Additionally, those who responded may differ on certain aspects than those who did not. Once again, this is a limitation that should be accounted for when reviewing the findings.

Another limitation was the type of information that could be collected from the online surveillance and the provider survey. For instance, analyses could not be conducted on the fidelity of the evidence-based practices, the capacity levels of different providers, or waitlist lengths (if applicable) for providers this type of information could not be easily accessed in the study's timeframe. The way that information was coded could also impose some limitations. To illustrate, when determining the level of care provided, if a provider identified as a mental health and substance abuse provider and provided group and individual therapy, then that provider is listed as providing both engagement and outpatient services. It is assumed that in order to provide therapy services, a provider needs to assess and develop a service plan (engagement). Despite these limitations and assumptions, the inventory provides a picture of the Orange County Behavioral Health system and serves as a roadmap for next steps in the system development.

### ***Quality Service Review (QSR)***

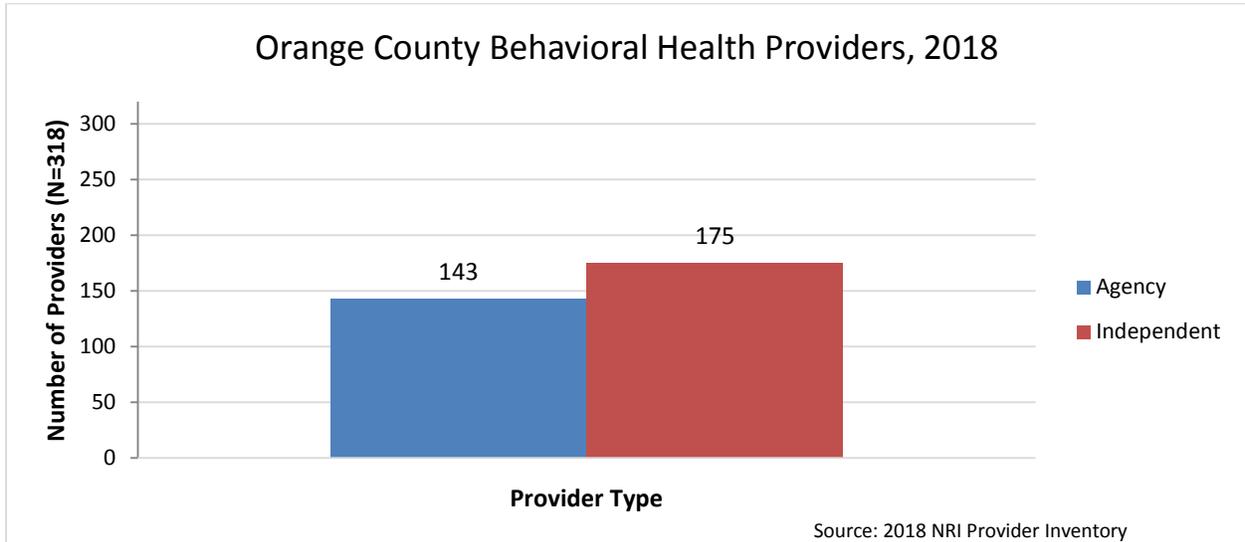
The QSR has its own limitations. Effort was made to randomly select all six cases based on a variety of factors such as: age, gender, race/ethnicity, primary language spoken at home, class level (elementary, middle, high), and involvement with certain systems (Department of Social Services, Department of Juvenile Justice, Department of Health). Events occurring in North Carolina at the time of the study (such as the beginning of the school year and Hurricane Florence), in combination with time constraints, may have impacted the selection process. It is possible that these factors lead to the selection of youth who were easiest to interview (e.g. their families were easy to contact and were willing to participate). Since the selection process was not truly random, the outcomes of the study may have been affected. While the results should be examined with caution, these limitations do not negate the findings of the QSR analysis. Each child is a unique test of Orange County's Behavioral Health system and its providers. Their unique experiences highlight the strengths and weaknesses of the system. Areas where these children/adolescents share similar experiences strengthens the idea that the system is doing well in this area or that the system needs to improve upon the provision of services in this area.

## System Findings

### Provider Inventory Overview

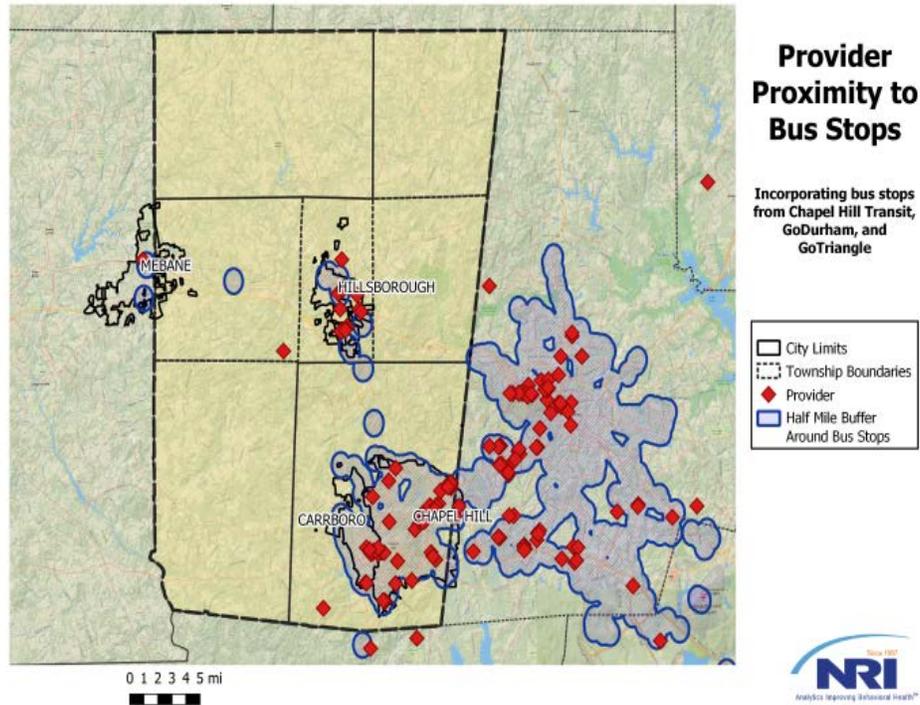
The provider inventory and survey identified 318 behavioral health service providers. Of the 318, 143 are agency providers, and 175 are independent providers (See Figure 1).

Figure 1



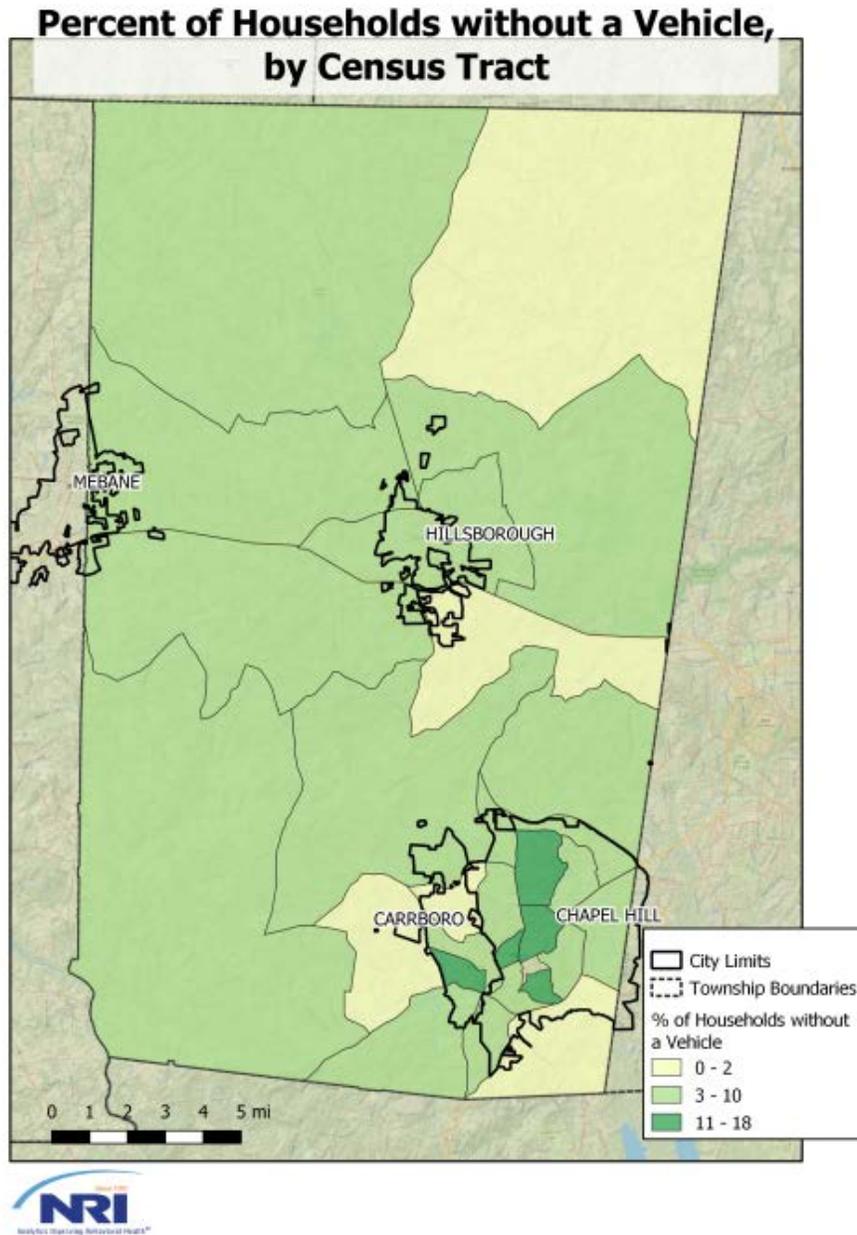
To understand how these providers were dispersed within Orange County, and their location to public transportation, a GIS map was created. The map was developed using information from the Provider Inventory (provider location) along with information from Chapel Hill Open Data<sup>12</sup> and Durham City and County Geospatial Data<sup>13,14</sup> (public transportation routes). Many of the providers identified in the inventory were based in neighboring counties (e.g. in Durham County) and not in Orange County itself (See Figure 2). These providers, even though they were not located in Orange County, indicated that they provided services to Orange County residents. Among the providers operating within Orange County, a large proportion of these providers were located in Hillsborough, Chapel Hill, and Carrboro. Upon comparison of the public transportation routes to provider locations, it can be seen that many of the providers (but not all) are located near bus stops (See Figure 2). This is important because transportation barriers can impact access to services.

Figure 2



Many residents reported having access to transportation. Data from the 2012-2016 American Community Survey suggests that only 9% of Orange County residents do not have access to a vehicle.<sup>9</sup> As can be seen in Figure 3, the two locations within Orange County that have reported having a larger proportion (more than 10%) of residents without access to vehicles are in Chapel Hill and Carrboro (See Appendix A for more details). While very few Orange County residents reported not owning a vehicle, the location of these bus routes in relation to behavioral health providers is important. The accessibility of transportation options can influence whether or not residents are able to access behavioral health services. To help individuals in rural areas access certain services, including behavioral healthcare, Orange County’s Demand Reponses Services has a Rural Operating Assistance program. This program allows individuals living in rural areas to be able to access transportation to: work, employment opportunities (e.g. interviews, career fairs), court hearings, community meetings, shopping, medication pick-up and healthcare appointments. The main drawback of this program is that it is not free. The fare for this trip is \$12.75 each way.<sup>20</sup> While the program does offer a reduced cost for individuals on Medicaid who are elderly and disabled (\$3 each way), and the Demand Response Services website indicated that it has non-emergency Medicaid transportation services for Medicaid beneficiaries who are deemed eligible for the services by the Department of Social Services, access to free or low-cost transportation services may be limited for individuals who are uninsured and residing in rural areas.<sup>20</sup>

Figure 3

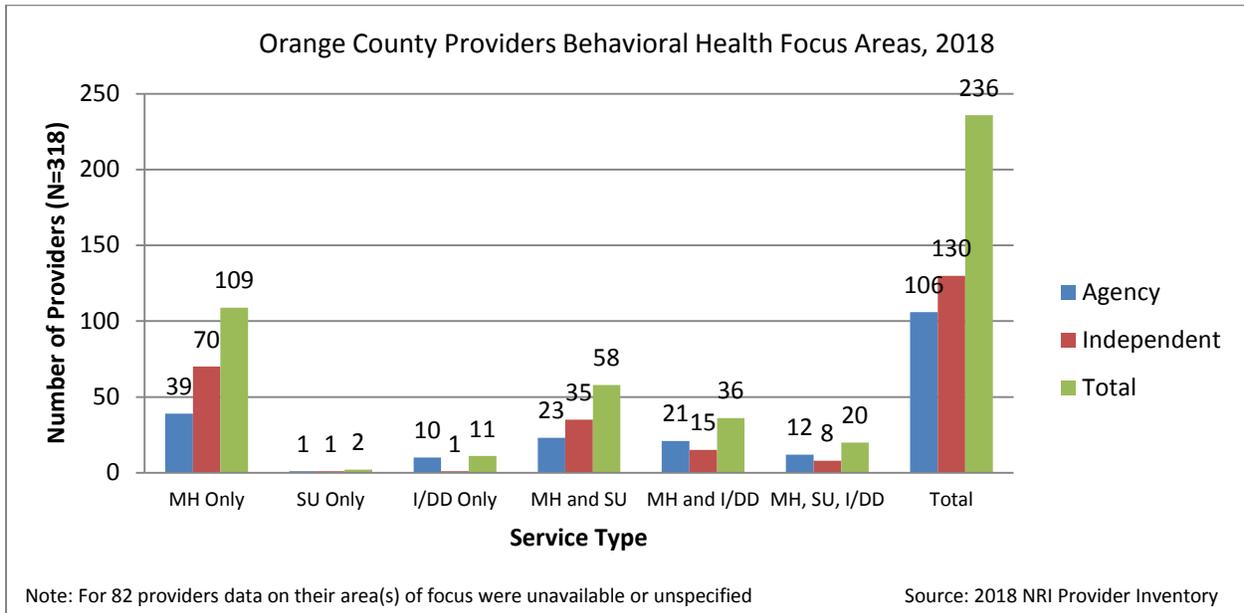


Based on information collected from the 2012-2016 American Community Survey 8.40% of Orange County residents<sup>v</sup> reported being uninsured (See Appendix A for more details).<sup>9</sup> As demonstrated in Figure 4, a higher concentration (16% or more) of uninsured adult residents live in the northern portion of Orange County. For youth, a higher concentration (11% or more) of those who are uninsured are located in the southeast portion of Orange County, as well as across the mid-portion of the county (See Figure 5). With the exception of some of the areas that have a

<sup>v</sup> Residents are defined as non-institutionalized civilians (United States Census Bureau, 2016).



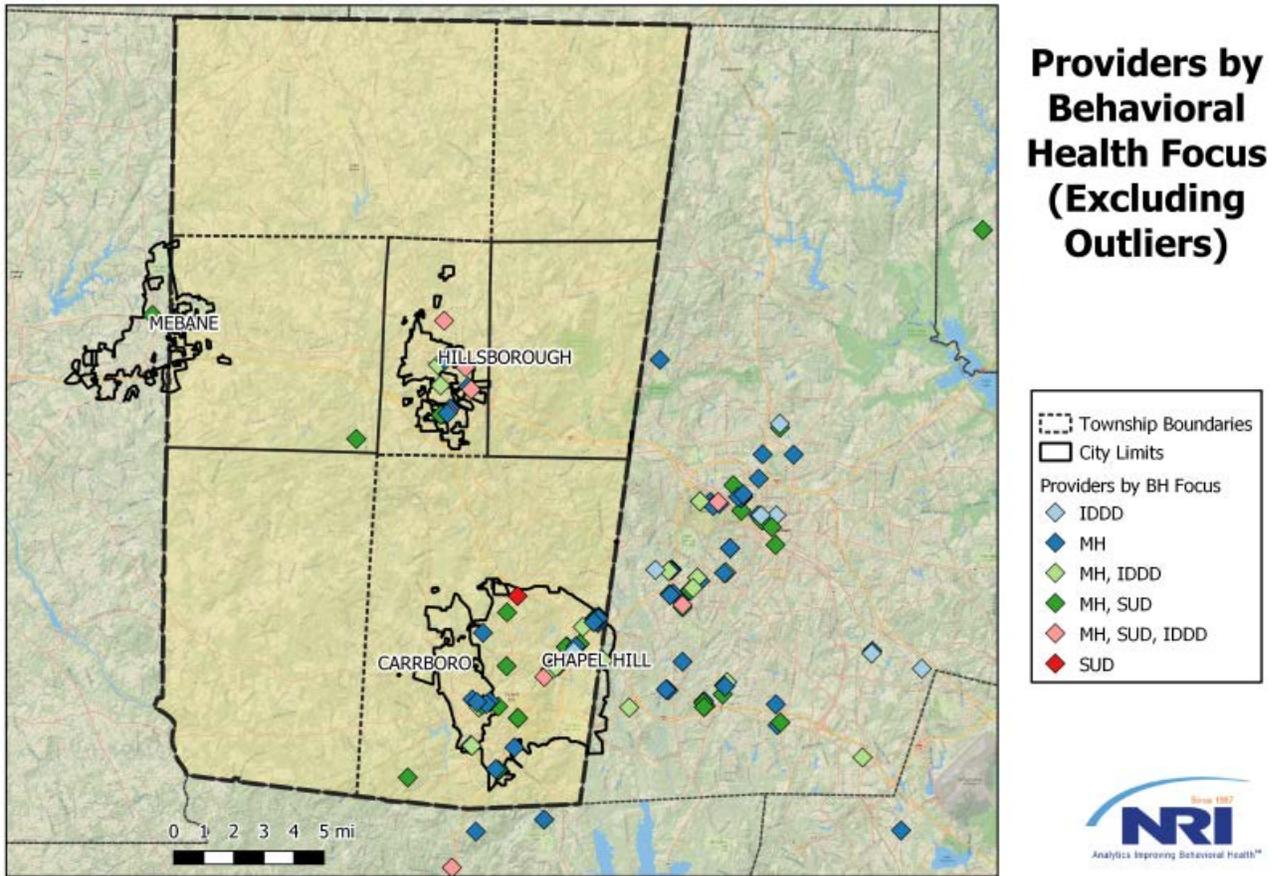
Figure 6



In Figure 6 it can be seen that a higher percentage of *agencies* (blue) provide intellectual/developmental disabilities (IDD) services (alone or when in combination with mental health disorders) compared to *independent practitioners* (red). In regards to the provision of mental health (alone) and dual mental health/substance use services, a larger number of independent practitioners provide these services compared to agencies. Very few providers reported solely providing substance use services (2 providers). Finally, none of the providers reported providing dual substance use and IDD services. According to Cardinal Innovations Healthcare, the Managed Care Organization (MCO) in Orange County, there is only one substance abuse treatment provider offering substance abuse block grant funded services in OC, which is standard given the scope and amount of block grant funding received. Receiving block grant dollars triggers enhanced reporting requirements, delivery of evidence based practices (EBPs), and data collection.

A GIS map was created to illustrate the location of providers based on their area of focus. Figure 7 illustrates that within Orange County only one provider, located in Chapel Hill, reported focusing solely on SUD treatment (red diamond). Very few providers (three near or in Hillsborough and one in Chapel Hill) reported focusing on treating all three behavioral health disorders (mental health disorders, substance use disorders, and intellectual/developmental disorders). For the most part, many of the providers located in Orange County (who were primarily concentrated in Hillsborough, Carrboro, and Chapel Hill) reported focusing only on the treatment of mental health disorders or on the treatment of mental health and substance use disorders (See Figure 7).

Figure 7

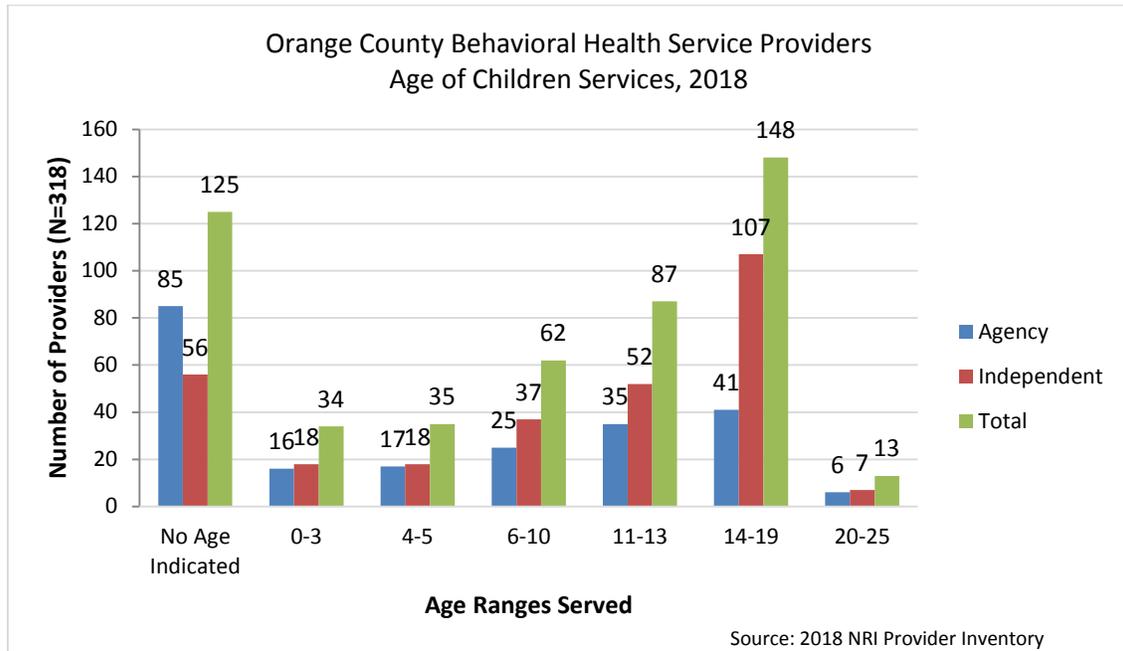


### Age Groups Served

Of the 318 providers, 34 providers (11%) indicated that they served youth between the ages of zero to three, 35 providers (11%) indicated that they served four to five year olds, 62 (19.5%) noted that they served six to ten year olds, 87 (27.4%) stated that they served 11 to 13 year olds and 148 (46.5%) serve adolescents aged 14 – 19<sup>vi</sup>. Another 125 providers (39.3% of the total number of providers) indicated that they served children and adolescents but they did not specify an age range of the youth that they serve. A limited number of the 318 providers (13 providers or 4.1%) indicated that they served young adults (18-25). This could mean that Orange County lacks providers who offer specialized services for this age group, or the more likely scenario is that providers merely included this group into the “adult” category. Nevertheless, based on the data presented in Figure 8, a small number of providers are found on each end of the age continuum (0-5 and young adult).

<sup>vi</sup> Note: Percentages do not sum to 100% since providers could serve youth in multiple age ranges (e.g. youth from ages 4 to 18).

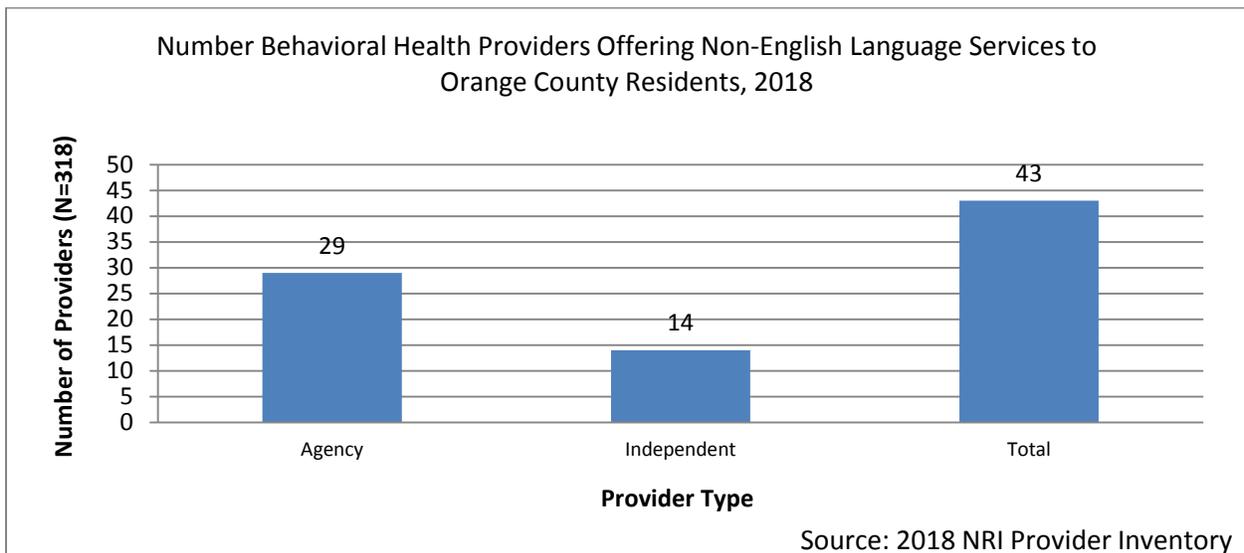
Figure 8



### Languages Spoken

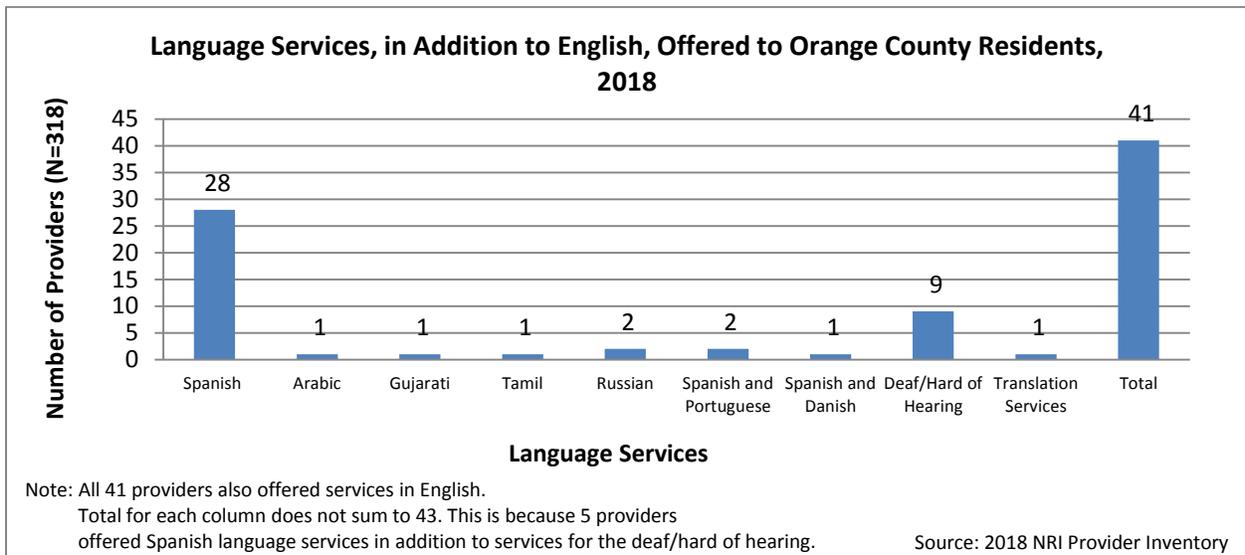
As previously noted, more than 16% of Orange County speak another language at home and 37.07% of these individuals are unable to speak English proficiently.<sup>21,22</sup> Certain locations (e.g. Carrboro and Chapel Hill) have higher concentrations of individuals who are limited in their ability to communicate effectively in English.<sup>22</sup> As a result, information was collected, when available, on whether or not the providers spoke another language. An analysis of this information revealed that there are a low number of bilingual (or multilingual) service providers (See Figure 9).

Figure 9



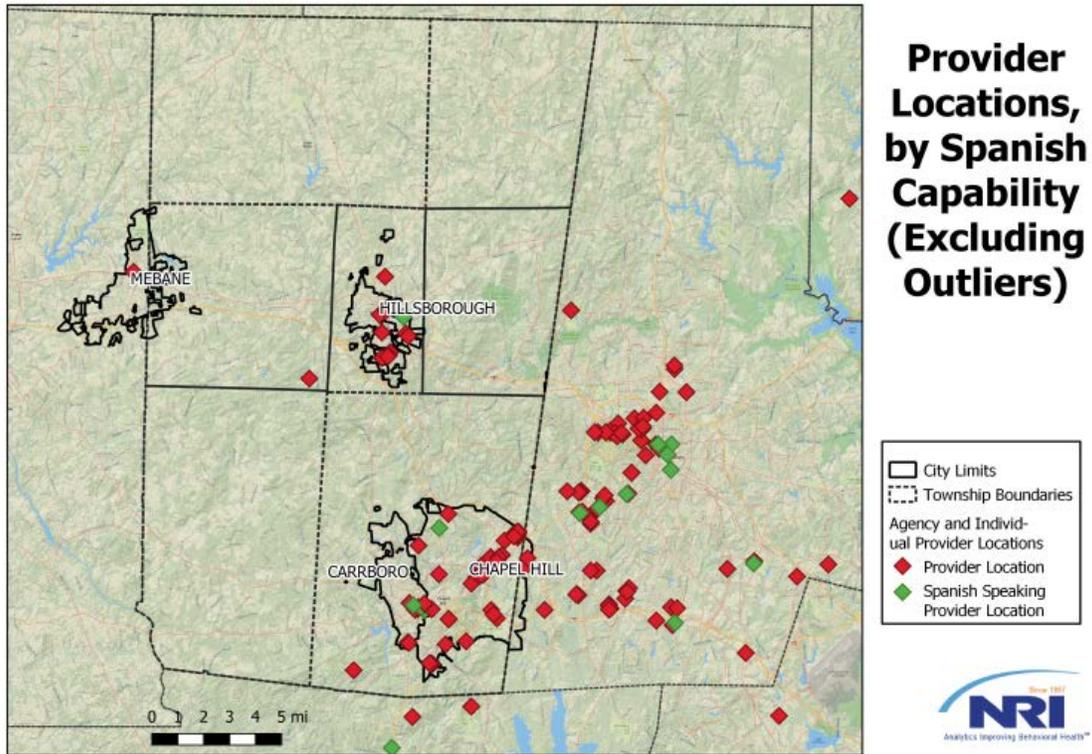
Only 43 providers indicated that they are equipped to provide other types of language services (See Figure 9). One of the providers indicated that they only provide services in Spanish. Another provider noted that they provide Spanish language services and services for the deaf/hard of hearing. Of the remaining 41 providers, 36 offered bilingual or multilingual services (See Figure 10).

Figure 10



Since Spanish was the most common language spoken by providers, a GIS map was created to visualize where the Spanish speaking providers were located in relation to English speaking providers (See Figure 11). As can be seen from Figure 11, only three providers practicing within Orange County indicated that they spoke Spanish.

Figure 11

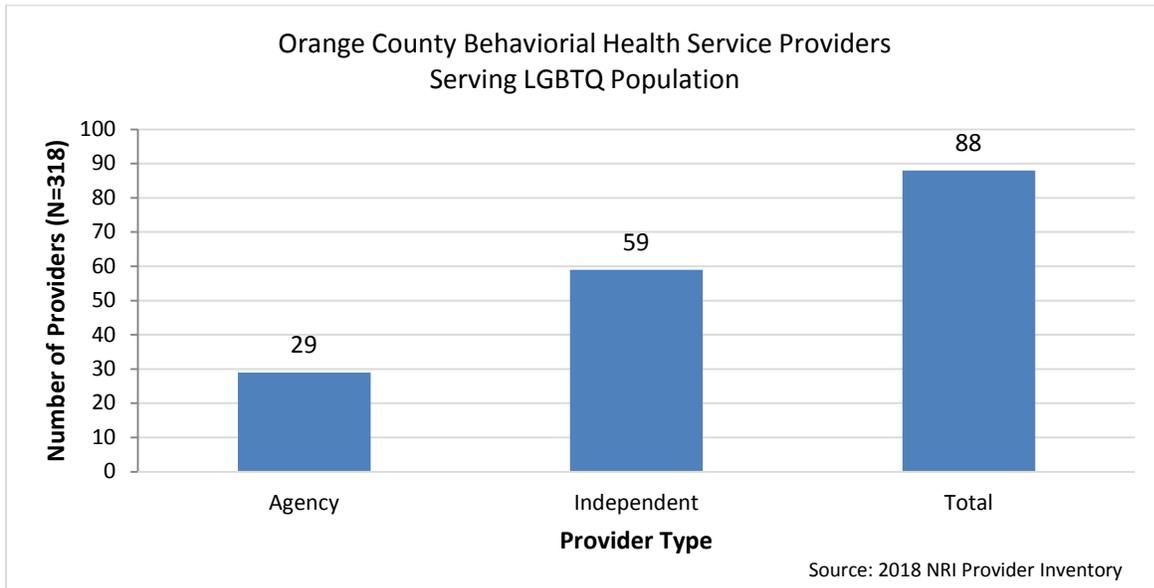


### LBGTQ Services

Of the 318, service providers, 88 (28%) explicitly stated that they served individuals who identify as lesbian, gay, bisexual, transgendered, or queer/questioning (LGBTQ).<sup>vii</sup> In regards to provider type, it is more common for independent providers (versus agencies/organizations) to offer specialized services for the LGBTQ population (See Figure 12).

<sup>vii</sup> Note: This does not mean that other providers do not provide services to LGBTQ individuals. Other providers may provide services to LGBTQ individuals. However, the 88 providers identified in the inventory provided information (on their website, online profiles, or via the survey) indicating that they had specific programs tailored for LGBTQ individuals and/or explicitly stated that they were willing to work with clients identifying as LGBTQ.

Figure 12

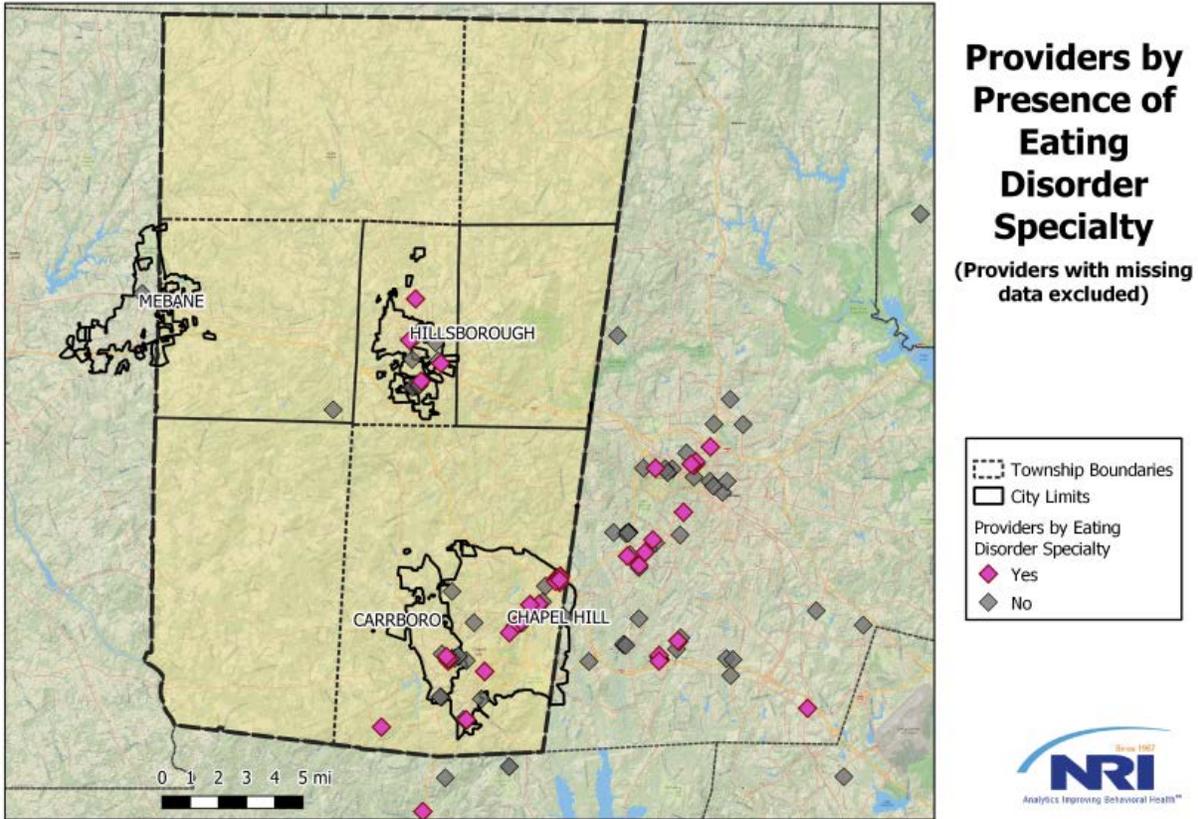


### Specialty Services

The Provider Inventory was analyzed to ascertain the provision of specialty services. The most frequently identified specialty was in services for individuals who have experienced trauma. Out of the 318 providers identified in the inventory, 148 (47%) listed specializing in trauma services.

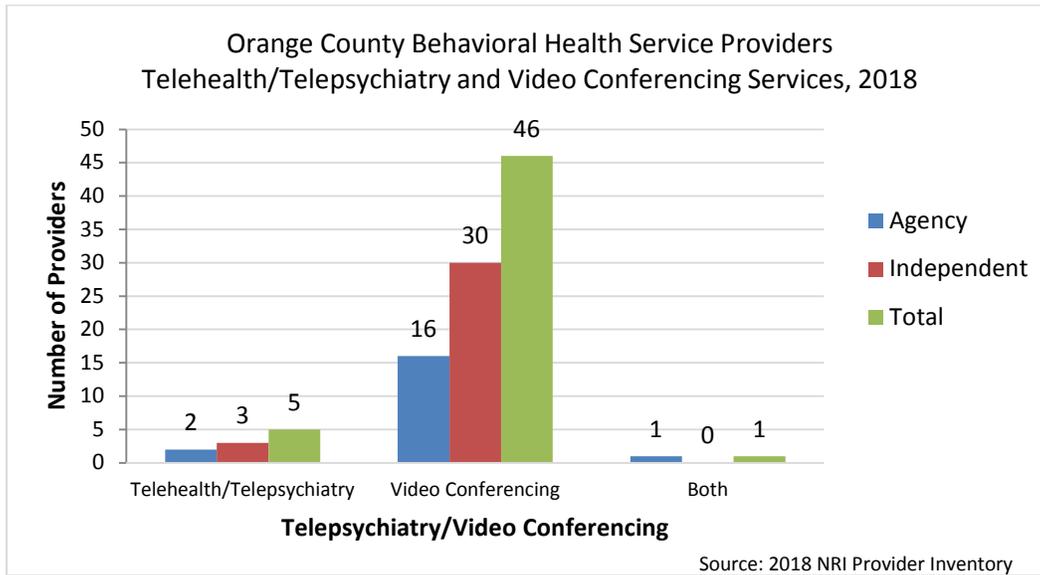
Orange County's Health Department expressed interest in learning which child/adolescent/young adult providers also specialized in treating eating disorders. Of the 318 providers captured in the Provider Inventory 60 (19%) indicated that they specialized in serving clients with eating disorders. Of the providers who specialized in treating eating disorders who practiced in Orange County, many of them were located in Hillsborough, Carrboro, and Chapel Hill (See Figure 13).

Figure 13



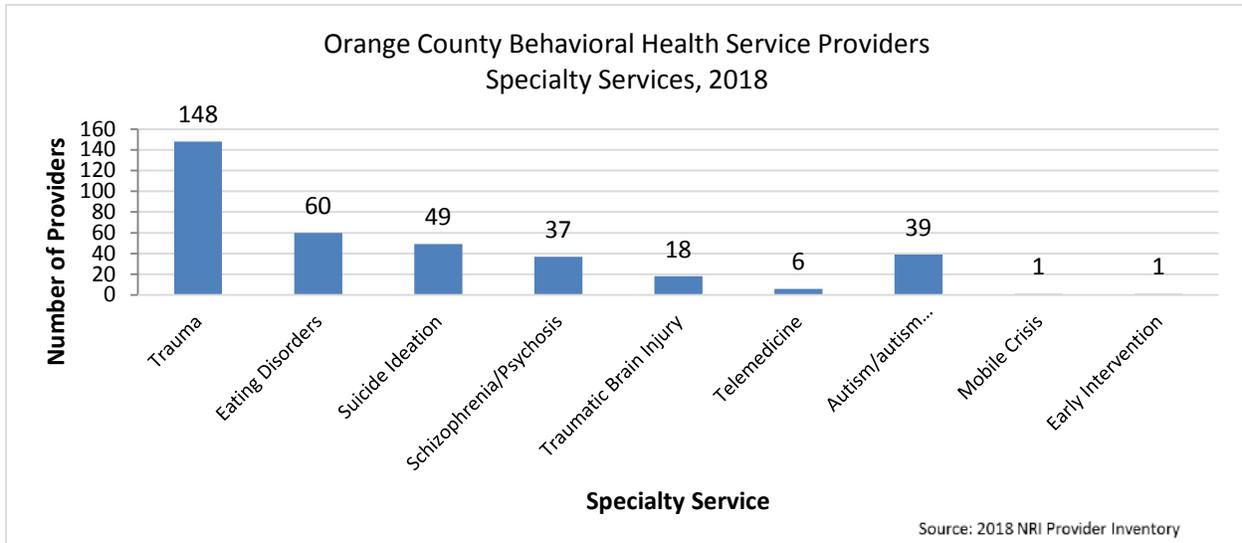
Some providers offer services that can minimize transportation barriers. North Carolina has a statewide telepsychiatry program (NC-STEP).<sup>23</sup> The program was designed to ensure that individuals who are experiencing crises are able to enter any hospital's emergency department within North Carolina to receive psychiatric treatment.<sup>23</sup> In total five providers indicated they offer telehealth/telepsychiatry services. Another 46 providers offered videoconferencing services to individuals (See Figure 14). It is unknown if these services were designed for the provider to be able to meet the patient and schedule in-person sessions or if videoconferences were used to provide telehealth/telepsychiatry services. Only one provider indicated providing telehealth/telepsychiatry services and using video-conferencing techniques. Providers that are interested in developing telehealth/telepsychiatry services can seek technical assistance from the Mid-Atlantic Telehealth Resource Center. The Mid-Atlantic Telehealth Resource Center was designed to aid nine mid-Atlantic states (including North Carolina) in developing these services by offering technical assistance and/or resources on how to these states.<sup>24</sup>

Figure 14



Another type of service that can minimize transportation barriers are mobile crisis units. According to the Provider Inventory, one of the providers indicated that they provide mobile crisis services.

Figure 15

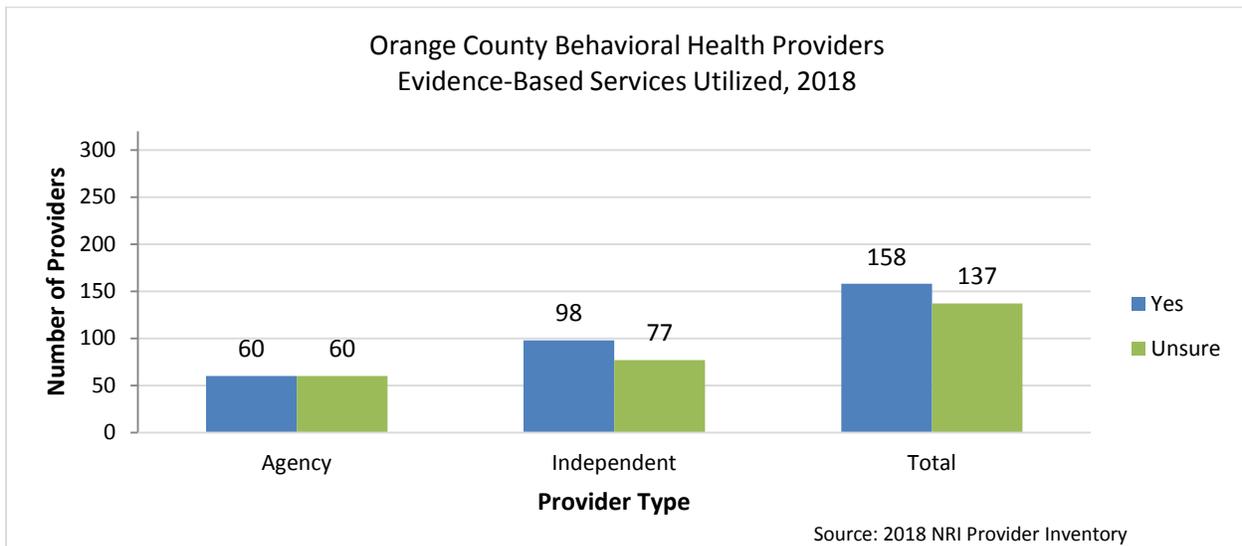


It is not uncommon for providers to specialize in multiple services. Therefore, providers can have multiple specialties. The most common specialty services provided were services for individuals with trauma, eating disorders, or suicidal ideation. As a result, of the 95 providers offering multiple types of specialty services, 25 specialized in trauma and eating disorders (26%), 18 specialized in trauma and suicidal ideation services (19%), and 20 specialized in all three services (21%) (See Figure 15).

## Evidence-Based Programs and Services

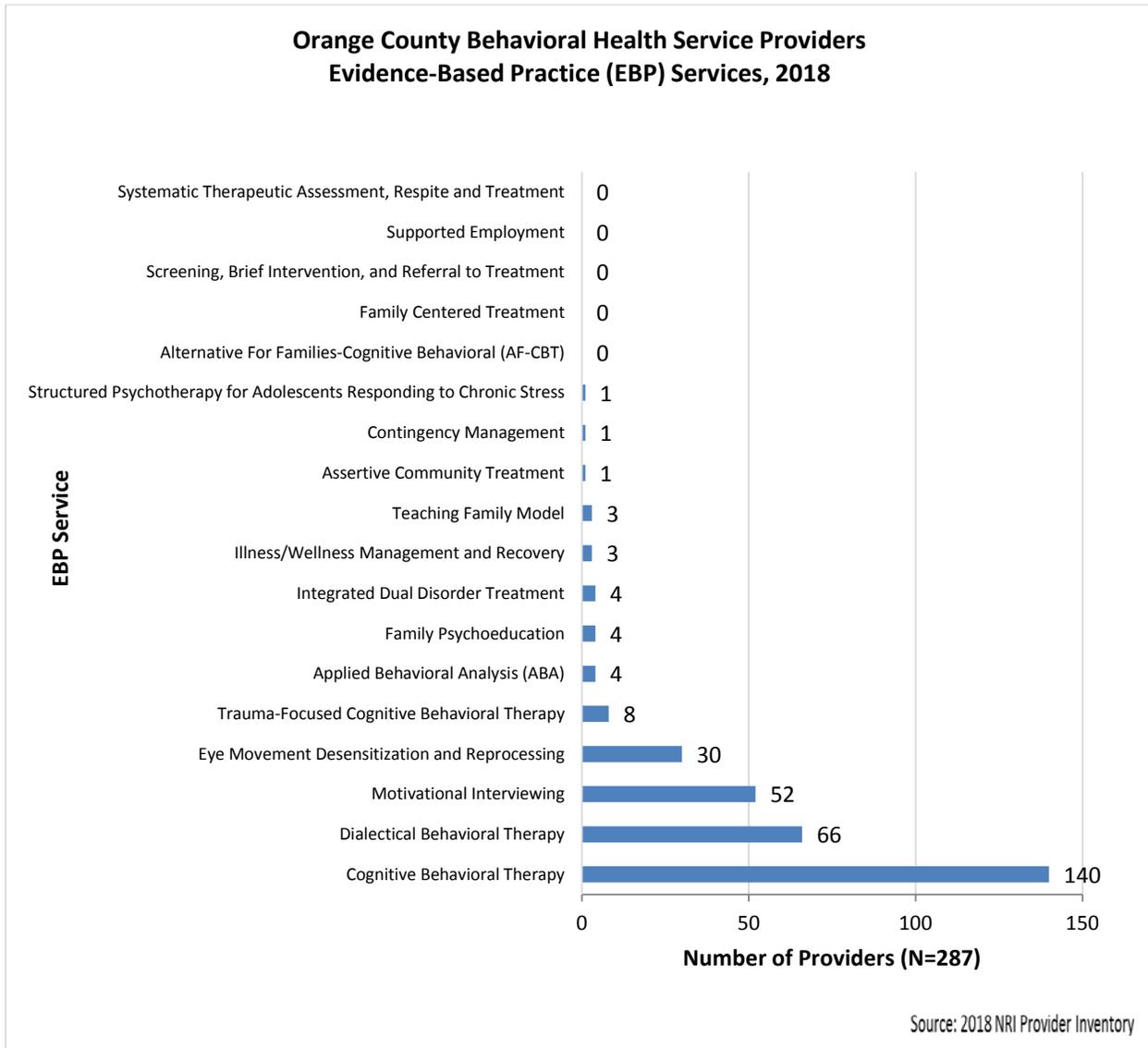
Providers were analyzed on whether they provide services that are considered evidence-based practices (EBP) (See Figure 16). EBP are important because they are well-researched and are shown to be effective. They aim to provide the most effective care that is available, with a goal of improving client outcomes. People expect to receive the most effective care based on the best available evidence. Information on EBPs provided was discerned through the online surveillance and provider surveys. Information and descriptions of each EBP analyzed are found in Appendix G.

Figure 16



158 (50%) providers indicated they use an evidence-based approach in their service delivery (See Figure 17). The EBPS used can range from proven and researched effective therapeutic approaches to structured manual-based programming. If providers did not indicate an EBP on their website or in the survey, the analysis labeled this as being 'unsure'. Figure 17 shows the types of EBPs used.

Figure 17



### Overall Depiction of Orange County Based on Provider Inventory

The data contained in the Provider Inventory and the GIS maps provides a more cohesive picture of Orange County and its behavioral health system. Obviously the areas with the highest concentration of residents and behavioral health providers are located in the major urban areas. These locations tend to have more diversity and are more likely to be comprised of residents with insurance. Residents living outside of these areas, however, may have trouble accessing behavioral health services (especially *specific types of* behavioral health services). While many of Orange County’s residents own a vehicle, this does not mean that the vehicle is accessible to every family member. If multiple household members living in a rural area are sharing a vehicle then it may be difficult for them to access behavioral health services. For those who do not have access to a car, access to public transportation is not always possible. Most of Orange County’s public transportation is centered in the highly concentrated areas within Orange County. There are programs, such as the Demand Response Services’ Rural Operating Assistance program, that

help individuals living in rural areas access transportation. However, these programs can be expensive (\$12.75 each way) for individuals who are not on Medicaid.<sup>20</sup> As a result, acquiring transportation may be difficult for Orange County residents living in rural areas who are not on Medicaid and are poor.

Even when it is possible for residents to access behavioral health providers (regardless of mode of transportation used) barriers can arise. Certain portions of Orange County have high concentrations of residents who are unable to speak English fluently. Very few providers indicated that they spoke languages other than English. The most commonly reported additional language spoken was Spanish. Of the providers that were marked in the Provider Inventory as indicating that they spoke Spanish, only three of the providers were operating within Orange County itself. While it is possible for residents to visit providers located in other counties for behavioral health services, this issue of transportation becomes central. As stated above, residents living in rural areas within Orange County may not have a car or may be unable to access public transportation. Even if residents are able to access public transportation, the costs of using multiple transportation methods to visit a provider may be too financially draining for some Orange County residents. Furthermore, while Chapel Hill's public transit system is free and parts of Orange County's public transportation are free, Durham County's system is not always free to use (it depends on the age of the individual and/or if the individual has a Go Durham identification card for discounts).<sup>25,26</sup>



### Good and Modern System Grid

SAMHSA developed a *Good and Modern* vision for behavioral health systems in 2011. This document "is grounded in a public health model that addresses the determinants of health, system and service coordination, health promotion, prevention, screening and early intervention, treatment, resilience, and recovery support to promote social integration and optimal health and productivity" (Substance Abuse and Mental Health Services Administration, 2011, p.3). Please note that a service array ideally offers the full continuum of levels of care, but the amount available in each level is dependent upon many local factors. Examples of factors impacting ideal service level amounts are the location of services available to individuals in a catchment area, transportation availability, and demographics. Generally, a small percentage of adults with serious mental illness and children with serious emotional disturbances consume a majority of resources.

An integrated system should develop improved strategies for individuals who may be underserved or poorly served in the current system. If a system relies too heavily on deep-end services such as emergency departments or residential care, with a lack of availability of preventative and early intervention services, it pushes people into those high-end services. This type of system is crisis oriented instead of preventative and tends to seek out of home care versus in-home or in community supports.

Even though there is no exact 'recipe' for the exact level of care capacity in the *Good and Modern* grid category, identifying the current service array as it relates to a *Good and Modern*

system provides opportunity to review how well current policies and practices support the development of a balanced system, how well a system supports their citizens regardless of their being in rural or urban areas of the catchment area, and if citizens are able to promote health and wellness versus reaching a crisis state and seeking out of home care. “A modern mental health and addiction system should have prevention, treatment and recovery support services available both on a stand-alone and integrated basis with primary care, and should be provided by appropriate organizations and in relevant community settings” (Substance Abuse and Mental Health Services Administration, 2011, p.7).

The *Good and Modern* grid has eleven columns. The columns represent a continuum of services ranging from screening, evaluation, prevention, intervention, treatment, in-home supports, out of home supports, recovery supports, and ongoing support. Having an array of services across the spectrum is ideal. In an ideal system, there is prevention and early identification followed by treatment services provided on an outpatient basis with robust follow-up care and recovery support. High-intensity services such as out of home care and hospital services need to be available but not be relied on for routine care. The *Good and Modern* adjusted grid is found in Appendix F.

Figure 18 presents the Orange County *mental health services* as they apply to the *Good and Modern* grid. Of the 223 providers offering mental health services to Orange County residents, 219 (98%) offer engagement services (assessment, evaluation, education, and outreach) and 198 (89%) provide outpatient services (individual, group, and family therapy). It can be seen in Figure 18 that the bars for all of the other levels of care are low; indicating that few providers indicated they offer these services.

Figure 18

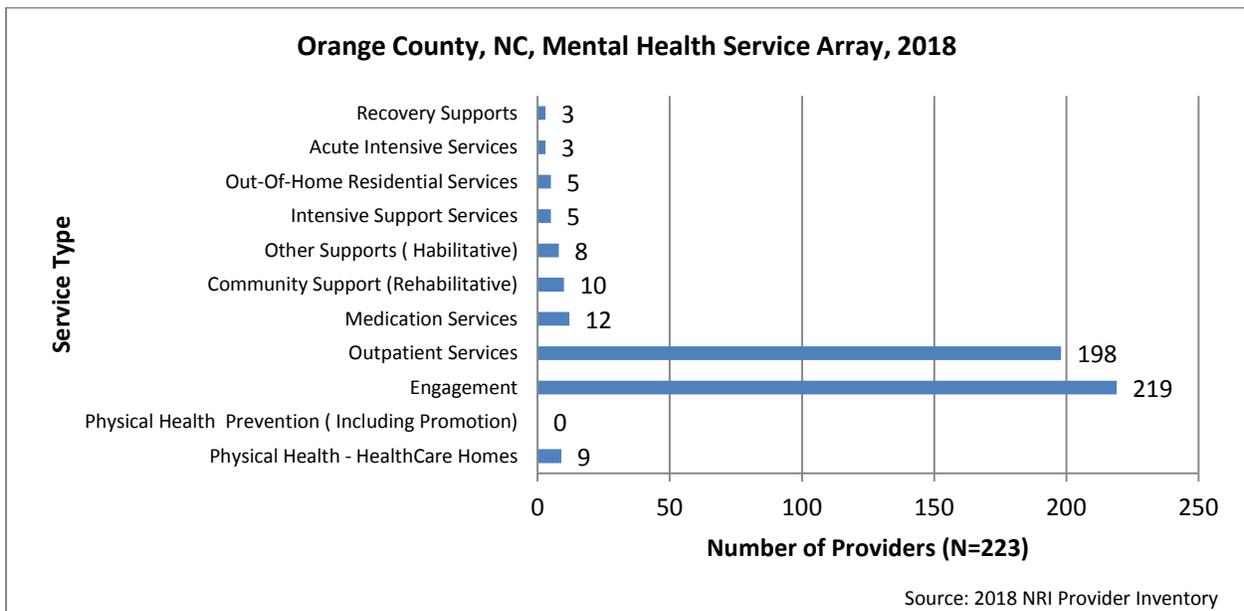


Figure 19 presents the *substance use disorder services* as they apply to the *Good and Modern* grid. Of the 80 providers who offer substance use disorder services, 77 of them (96%) offer engagement services and 74 providers (92%) offer outpatient services. Similar to mental health service providers, few substance use disorder providers offer other levels of care (See Figure 19). The next frequently identified category of care offered was medication services (medication management, pharmacotherapy, and laboratory services). Seven substance use providers listed that they offered medication management services.

Figure 19

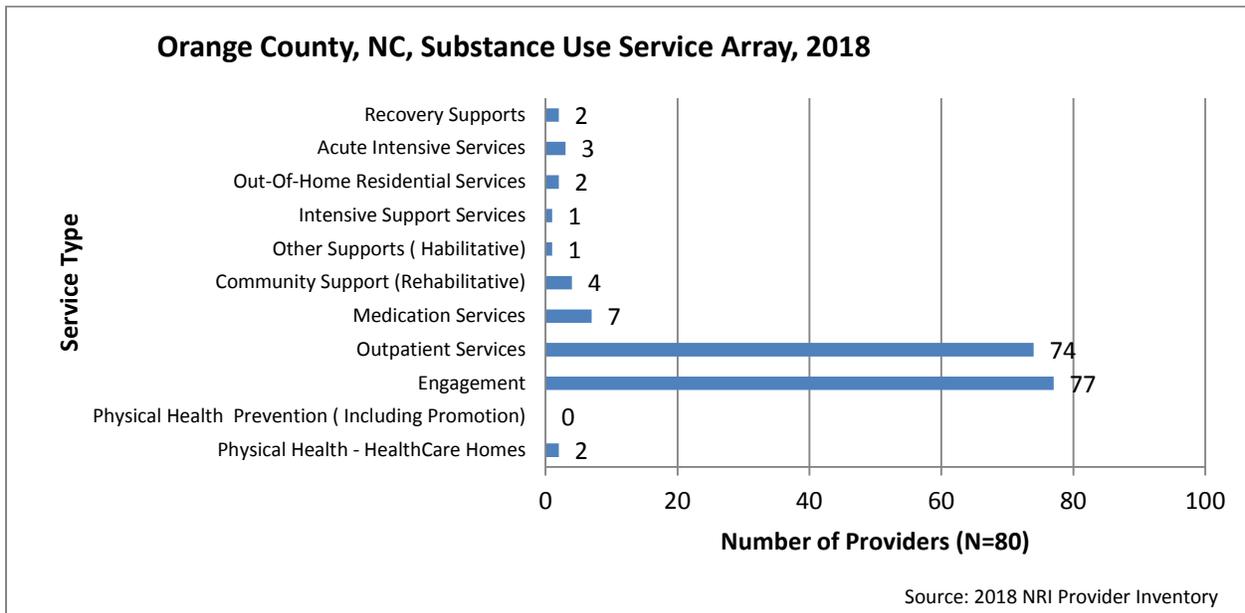
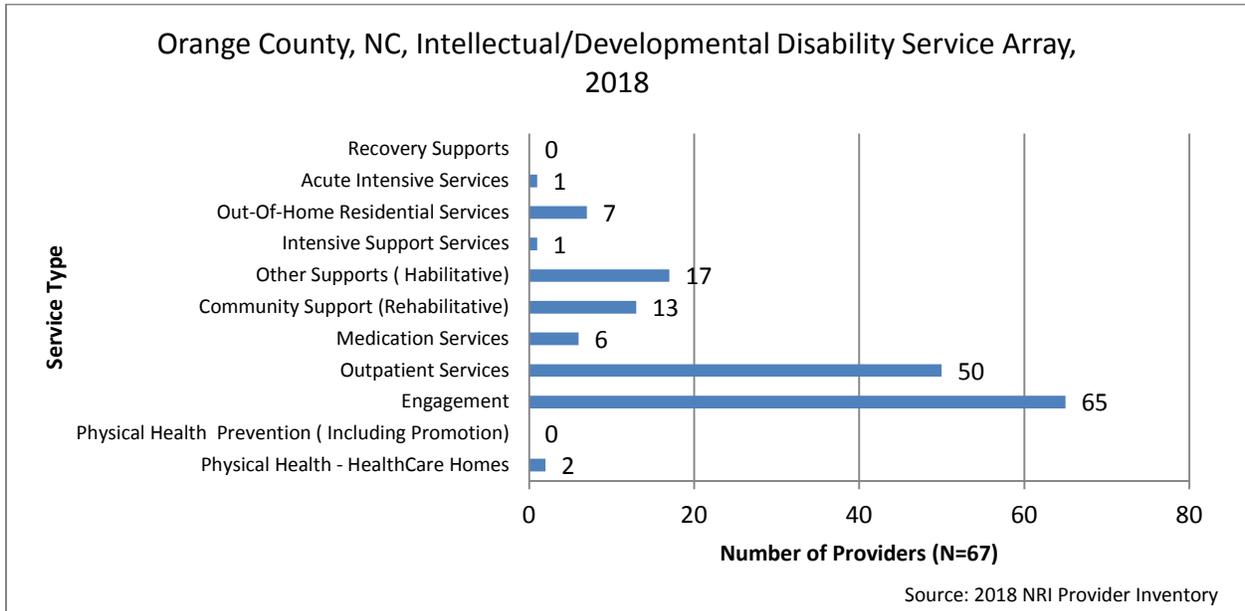


Figure 20 presents the *IDD services* as applied to the *Good and Modern* grid. It appears that providers offering intellectual/developmental disability (IDD) services offer a wider array of services than the mental health and substance use providers who serve Orange County residents. Of the 67 providers offering IDD services, the most common services provided were engagement services (97%), outpatient services (ABA) (75%), and other supports (day services, respite, home modifications, etc.) (25%). Community supports (early intervention, social skills training, family support, and coaching) was specifically identified by 19% or 13 providers. The differences in the array of services offered by IDD providers compared to metal health/substance use providers is driven by the comprehensive Medicaid Innovations waiver which offers a full array of levels of care to Orange County residents. According to North Carolina’s Department of Health and Human Services (2017)<sup>4</sup>, the North Carolina Medicaid Innovation waiver allows for the provision of the following services: “Community Navigator , Community Networking, Day Supports, Personal Care, Residential Supports, Respite, Supported Employment Supports, Financial Support Services, Assistive Technology, Community Living and Support, Community Transition, Crisis Services, Home Modifications, In Home Intensive, In Home Skill Building, Individual Goods and Services, Natural Supports Education, Specialized Consultation, Supported

Living, Vehicle Modifications”. Individual ISPs do not include all services listed; rather the ISP is based on individual need.

Figure 20



Caution should be taken when interpreting these results. It is important to keep in mind that the enumeration of services in Orange County solely represent services that are offered. Access to these providers and services is predicated on a client’s ability to pay. Availability of the services is dependent upon capacity and the degree to which the service providers have filled their roles.

Another method to view a balanced behavioral health service system is found in the Institute of Medicine’s Continuum of Care model.

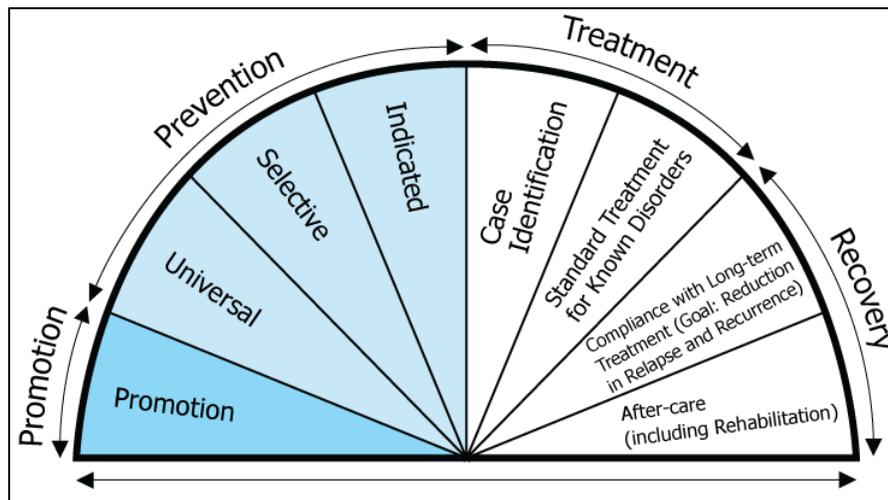


Image Source: O’Connell, M. E., Boat, T., & Warner, K. E. (2009). *Preventing mental, emotional, and behavioral disorders among young people: Progress and possibilities*. Washington, D.C.: The National Academies Press. Retrieved from: [https://www.integration.samhsa.gov/integrated-care-models/IOM\\_Report\\_on\\_Prevention.pdf](https://www.integration.samhsa.gov/integrated-care-models/IOM_Report_on_Prevention.pdf)

This model recognizes the array of services that address behavioral health concerns across the spectrum. Using this model, the goal is to provide a variety of services in each of the areas of promotion, prevention, treatment, and recovery. It should be noted that in the area of IDD, the Institute of Medicine model is not applicable since developmental disabilities can result from biological issues that the individual may be born with or be exposed to. Developmental disabilities can result from: hereditary disorders, early alterations of embryonic development (fetal alcohol syndrome), late pregnancy or perinatal conditions (prematurity), acquired childhood conditions (traumatic brain injury), and conditions of unknown etiology (cerebral palsy).<sup>27</sup> Prevention of developmental disabilities that result from these biological factors is more complex. According to Pope, and Tarlov (1991), prevention efforts need to be focused in the following areas: “health care, education, environmental control and adaptive assistance, and peer support” (Pope & Tarlov, 1991, pg. 124).

The Provider Inventory mainly covers the *treatment* and *recovery* sections of the Institute of Medicine’s continuum of care. Very few services were identified in the provider inventory focused on prevention. As a result, a limited number of providers could be classified as providing services that fit under the *prevention* section of the Institute of Medicine’s continuum of care. Promotion and prevention programs are challenging for residents to locate as they are often grant funded and often do not have websites or use other methods of information sharing. Generally, schools, non-profits, advocacy organizations, and student organizations lead prevention activities.

Despite this lack of prevention information, Orange County does have preventative services at the Health Department and both school systems. For example, Chapel Hill and Carrboro run a prevention program called The Coalition for Alcohol and Drug Free Teenagers.<sup>28</sup> The program came into operation after Orange County received funding through SAMHSA to develop it as part of the Strategic Prevention Framework-State Incentive Grant (SPF-SIG).<sup>28</sup> Grants, like SPF-SIG, develop and mobilize community resources. These community resources can then be utilized to develop a workforce of mentors/role models within the county. In essence, these grants can be used to develop a foundation for prevention work by training personnel and communities. Orange County can take advantage of the resources produced from these grants by reviewing what worked in the programs that were generated from these grants and identifying who in the community spearheaded the efforts. These community champions may potentially be interested in assisting the county in the maintenance of current programs or the development of new ones. By discovering what grant programs work, the county and its system partners could expand its prevention system accordingly. Therefore, it is recommended that the SPF-SIG prevention model be utilized to build and enhance Orange County Behavioral Health’s prevention system.

RECOMMENDATION: Utilize the SAMHSA Strategic Prevention Framework–State Incentive Grant (SPF–SIG) prevention model to build and enhance Orange County Behavioral Health’s prevention system.

Orange County is also in the process of developing another program that is being funded by SAMHSA's Drug Free Community Grant (award number SP022152-07).<sup>29</sup> The grant was awarded to Freedom House Recovery Center in 2016. Funding for the project will last until 2021.<sup>29</sup> Freedom House Recovery Center intends to use the grant to develop a coalition that will work to develop preventative measures and methods for reducing substance use among youth.

Many areas around the country use a school-based universal behavioral health screening process. Screening is conducted for all students and is a way to provide school-based prevention and early intervention services. Schools are an ideal location for mental health promotion efforts. Since there is a gap in Orange County between those in need of behavioral health services and those receiving needed services, screening is a way to increase identification, need, and access.<sup>30</sup> These efforts can provide an avenue to build resiliency in children. Results of the Quality Services Reviews in the school systems are presented below.

## Quality Service Review (QSR)

### *Demographics*

The Quality Service Reviews (QSRs) were conducted in September of 2018 on a sample of six youth cases. Three of the cases were from the Chapel Hill School system. The other three were from the Orange County School system. Of the six children/adolescents that participated in the study, five (83.33%) were male and three (50%) were between the ages of 14 and 17. Three were Caucasian, two were Hispanic and one was biracial. All six of the youth were living with family members. Four out of the six (67%) were living with their parents.

Many of the youth included in the review reported primarily speaking English (four or 67%). This ratio appears to be proportional to that of Orange County as a whole. As noted previously, data collected for Orange County suggests that 87% residents speak English at home.<sup>21,22</sup> Since most individuals speak the language that they are most comfortable with at home, this result suggests that the primary language of many Orange County residents is English.

Only two (33%) of the youth had a change in placement over the past year. In one of the cases, the youth was moved from a school setting to a home setting for his/her education for a short period of time. Once the period of time was over, the youth returned to a regular school setting for his/her education. In the other case, the youth was removed from his/her residence and school while he/she was hospitalized for duration of time. In regards to length of time with service providers, two of the youth (33%) had been with their current provider for more than ten months. The remaining youth (67%) had been with their provider for less than six months (See Figure 21).

Figure 21

**NC QSR Time with Current Provider**

Number of persons: 6

NC Orange Co. 9/2018

Time with Current Provider	Number	Percent
0-3 mos	3	50%
4-6 mos	1	17%
10-12 mos	1	17%
13-18 mos	1	17%
	6	100%

Each youth was referred for treatment by a different source. Sources included (but are not limited to) the school, family, himself/herself, or an agency. Each youth had multiple diagnoses. The most common diagnoses were depression and anxiety. These diagnoses were present in four out of the six youth (67%). Half (50%) of the youth were also diagnosed with Attention Deficient Disorder. Half (50%) of the youth were receiving a psychotropic medication for one or more of their disorders.

The youth were assessed on their level of functioning. The scale that was utilized was modeled after the Child Global Assessment of Functioning Scale (CGAF). A functioning level of 1- 5 meant that the youth was experiencing substantial problems in daily functioning in normal settings and required a high level of support through intensive in-home or wraparound services. A functioning level of 6-7 indicated that the youth was having some difficulties or symptoms in certain areas. These youth typically needed intensive outpatient or other in-home services. Lastly, a functioning level of 8-10 indicated that the youth had a slight impairment of functioning but could be functioning well in normal daily settings, with only a minimal amount of supports.

Out of the six youth that were studied, four (67%) of the students has a mid-level functioning level (Rank 6-7). In other words 67% of the sample had issues functioning in certain areas/domains and required additional support (typically outpatient or in-home support) to function well in daily settings. Of the remaining two individuals, one had a low level of functioning (Rank 1-5) and the other had a high level of functioning (Rank 8-10). In regards to care, all of the children/adolescents were receiving community-based care that matched the level of care required based on their functioning level needs.

Five (83%) of the children were from families that were either on public assistance or were considered part of the working-class. The group was evenly split (50% each) between youth who lived with both parents and youth who lived with a single family member (parent or grandparent).

Frequently reported barriers that impeded case management or access to services for the children included eligibility criteria (50%), life issues<sup>viii</sup> (33%), costs/billing (33%), cultural or language differences (33%) and family instability or moving (33%).

### *QSR Measures/Performance*

All youth cases were scored to determine the progress level of each child/adolescent's service plan and Orange County's Behavioral Health System. As a result, each case was ranked based on two indicators: Personal Status and Practice Performance. For this study, the personal status indicator examined whether or not certain variables/factors were present within each child/adolescent's life within the past 30 days.<sup>6</sup> The practice performance indicator measured how well the providers (and, in turn, the behavioral health system) applied core practices over the past 90 days.<sup>6</sup> Each indicator was measured based on a variety of factors (e.g. well-being/safety for the Personal Status indicator and implementing interventions for the Practice Performances indicator). A score of 1 to 6 was assigned for each variable/factor. Cases that scored a 5 or 6 did not require any changes to be made (maintenance zone). A score of a 3 or 4 indicated that several changes had to be made to refine the child or system's performance (Refinement Zone). Finally, a score of 1 or 2 meant that significant changes needed to be made (improvement zone). In the end, the scores for each variable/factor were averaged to produce an overall score for each indicator. If an indicator had an overall score of a 1, 2, or 3 it was viewed as being at an unacceptable level. This means that active efforts need to be initiated to improve the factors present in the child/adolescent's life so that he/she is able to make progress and/or actions need to be taken to improve the care that is being provided to this child/adolescent.<sup>6</sup> Indicators that have a score of 4, 5, or 6 are perceived as being acceptable. The higher the score, the more adequate the factors present in the child/adolescents life are and/or the more the providers system needs to focus on maintaining the type of care being provided.<sup>6</sup>

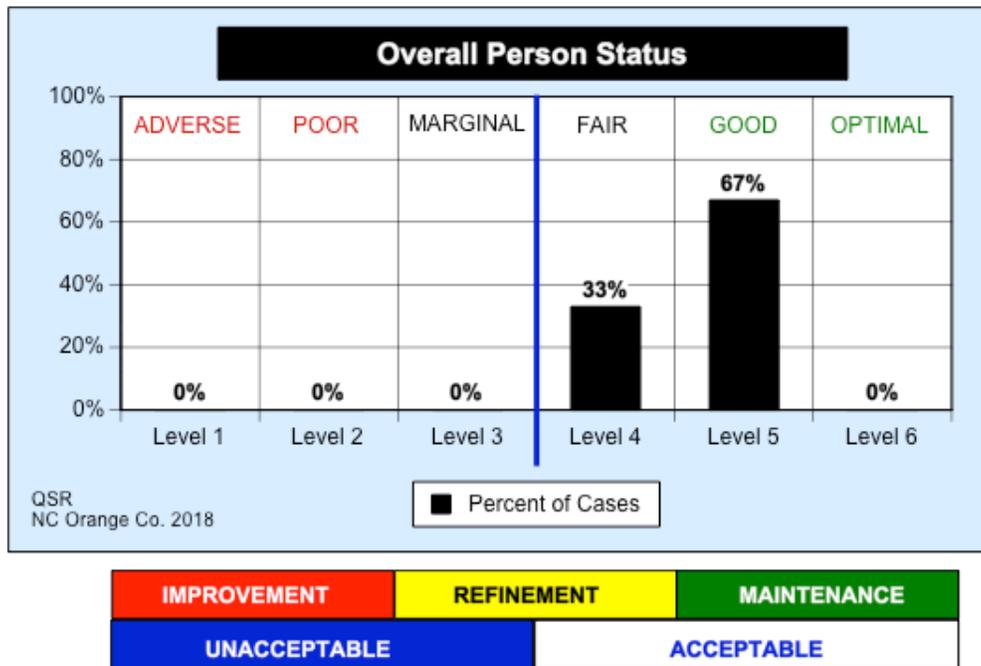
#### Personal Status

The personal status indicator examined whether or not the child/adolescent is achieving their desired life outcomes. All 6 children scored within the acceptable range for the personal status indicator (See Figure 22). Two of the students (33%) had on overall score of 4, which placed them in the "fair" category. This score indicates that their cases needed refinement in certain areas in order to meet long-term needs. The remaining four students (67%) had a score of 5 which meant that they fell into the "good" category. These children/adolescents were doing well. It was believed that these children/adolescents had the resources required to address their long-term needs.

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<sup>viii</sup> According to the QSR Profile for Integrated Care Forms, life issues can include: "limited cognitive abilities", "serious mental illness", "substance abuse impairment or serious addiction w/ frequent relapses", having experienced "domestic violence", having a "serious physical illness or disabling physical condition", "unlawful behavior or is incarcerated" experiencing the "adverse effects of poverty", experiencing "extraordinary care burdens", "facing "cultural/language barriers", being "undocumented", being "a parent (minor children) in need of skills and capacities for child rearing" and if someone is experiencing "a recent life disruption/homelessness" (QSR Institute, 2016b, page 1).

Figure 22



Looking more in-depth at this indicator, the components that were used to measure this indicator can be examined. A summary of how all six cases scored (improvement zone, refinement zone, maintenance zone) on each component was given. As can be seen in the following graphical depictions of these components, some of the components have totals (N) that are smaller than 6. This means that several of the youth were not included in this measurement because the measurement was not applicable to them. For all of the personal status components, none of the cases were ranked as needing dramatic changes (improvement zone) on any of the components that made up the Personal Status indicator. A few cases had one or more component/ factors that needed to be modified (refinement zone) to ensure that their child/adolescent’s short-term and long-term needs were met.<sup>6</sup>

In regards to safety/well-being, the reviewers noted some areas that needed refinement (See Figures 23 and 24). Out of all six children, the reviewers felt that refinement was needed in four cases (67%) regarding the safety<sup>ix</sup> of the youth, meaning that these youth were not in imminent harm but their plan for care could be strengthened. In five of the six cases (83%) the reviewers felt that the mental health needs of the youth needed refinement. In four cases the spiritual well-being of the children was addressed. The reviewers felt that more needed to be done to accommodate the spiritual well-being of two (50%) of the youth. There were three cases that addressed the functional status of the youth. In all three cases the reviewers felt that additional

<sup>ix</sup> Safety is defined in the QSR protocols as the “degree to which the person is free from external risks of harm, inclusive of such factors as abuse, neglect, intimidation, and/or exploitation by others” (Quality Service Review Institute, 2016a, p. 14). Being in the refinement zone on safety from harm indicates that strategies to reduce risk of harm are adequate for that individual but could be strengthened (Quality Service Review Institute, 2016a, p. 15).

measures needed to be put in place to address the functional status of these youth. Finally, one of the youth had substance use issues. In this case the reviewer felt that more had to be done to address the substance use issues that the youth was facing.

Figure 23

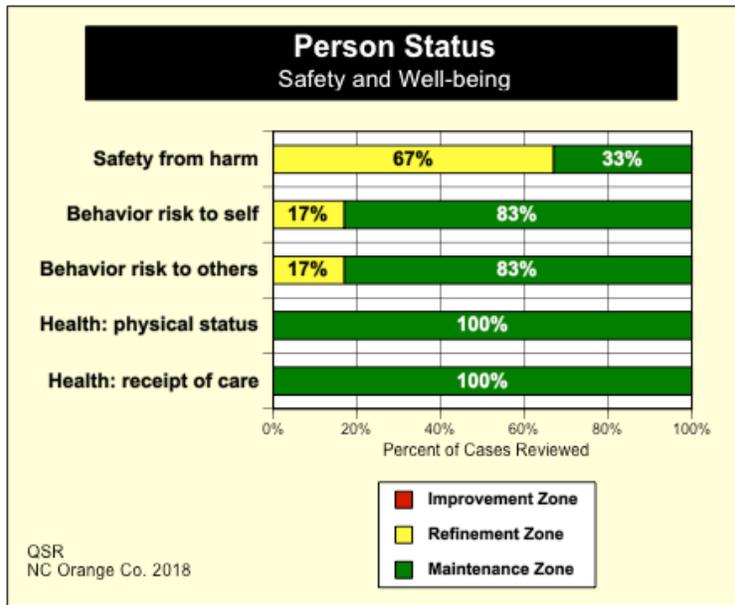
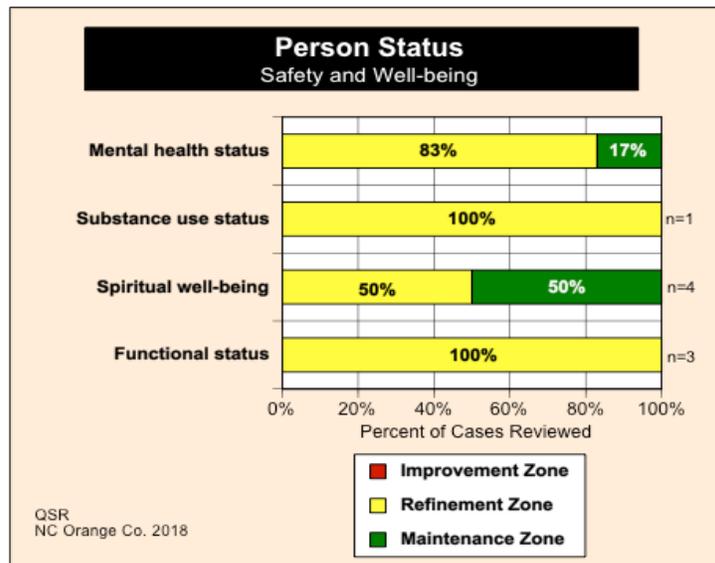


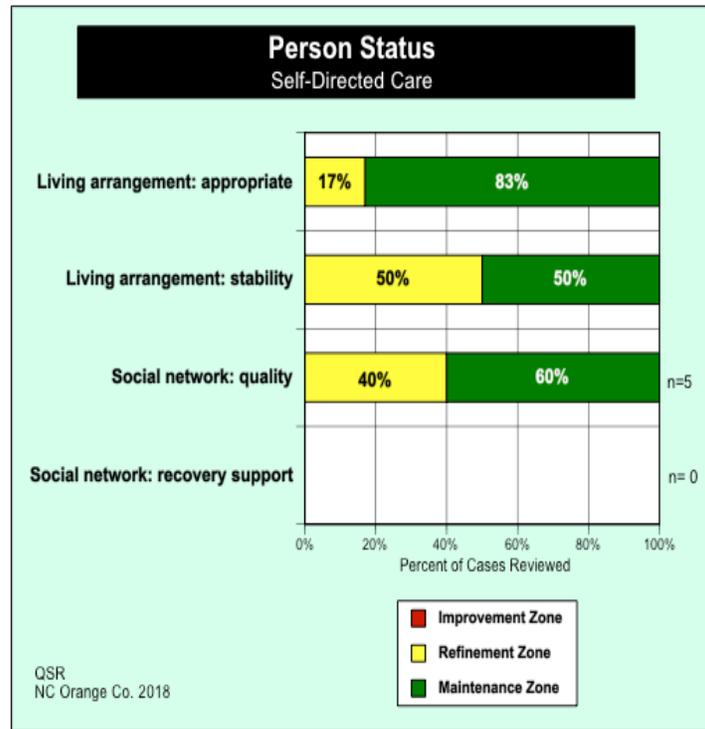
Figure 24



In terms of self-directed care, the reviewers felt that refinement needed in several areas. One out of the six youth (17%) needed refinement in his/her living situation. Three out of the six youth (50%) needed to have increased stability in their current living arrangement. In five cases, the quality of the youth's social network was examined. In two out of these five cases (40%) the reviewers indicated that the quality of their social networks could benefit from refinement.

Finally, as can be seen from Figure 25, the support that social networks bring to recovery was not relevant for any of the cases.

Figure 25

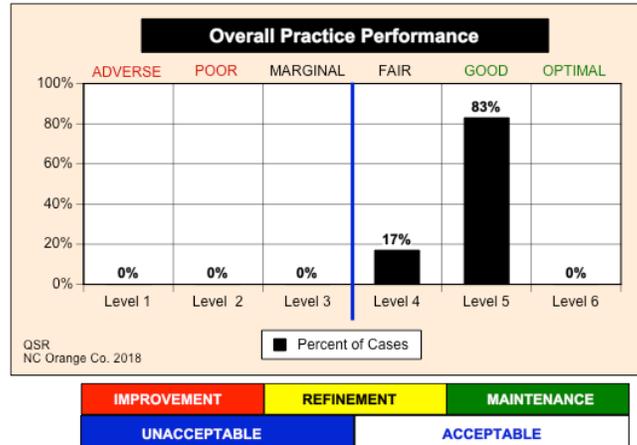


Finally when reviewing the data for the children in relation to their education/careers. The reviewers indicated that four (83%) needed refinement in their academic status.

### Practice Performance

Like with the Personal Status indicator, all six children/adolescents scored in the acceptable range for the Practice Performance indicator. The Practice Performance indicator measured how well the providers apply core practices over the past 90 days. The main difference between the two indicators was the proportion of students that fell into the “fair” category versus the “good” category. For the Practice Performance indicator, only one of the children/adolescents (17%) fell into the “fair” category (overall Practice Performance indicator score of 4). The other five children/adolescents (83%) had scores of 5 which placed them in the “good” category. Overall, the performance of the system fell in the “good/maintain” range (See Figure 26).

Figure 26



A detailed examination into the different components that were used to create the overall Practice Performance indicator reveals that none of these components were ranked as needed dramatic changes (improvement zone). Like with the Personal Status indicator components, only a few components required slight modifications (refinement zone) in one or more cases to ensure that short-term and long-term needs could be met.<sup>6</sup> In the sub-category “core practice functions” the reviewers indicated that refinement was needed in recognition/connection/rapport for one (17%) out of the six children/adolescents, care coordination/teamwork for five (83%) out of six the children/adolescents, screening/detection/response for three (50%) out of the six children/adolescents, and assessment/case formulation for three (50%) out of the six children/adolescents. Wellness/recovery was only relevant in three cases. In two of these cases (67%) the reviewers indicated that improvement was needed to help these youths address their wellness and meet their recovery goals (See Figures 27 & 28). Some explanations were provided in regards to what services could be provided to help improve these areas. The reviewers feel that more consistent team-based case management is needed in the area of care coordination/teamwork. Work also has to be done to decrease the delays between the identification and assessment of a child/adolescent’s needs and the provision of services. The reviewers found that in the areas of screening/detection/and assessment/case formulation there was an interruption in services that led to their needs not being met.

Figure 27

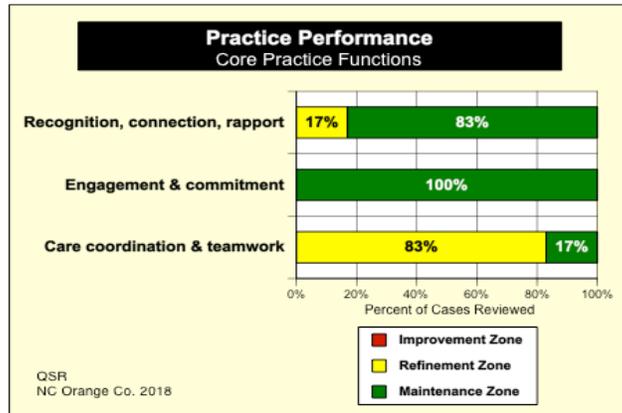
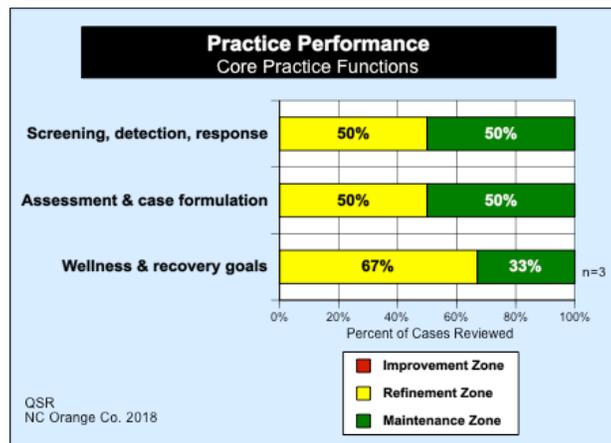
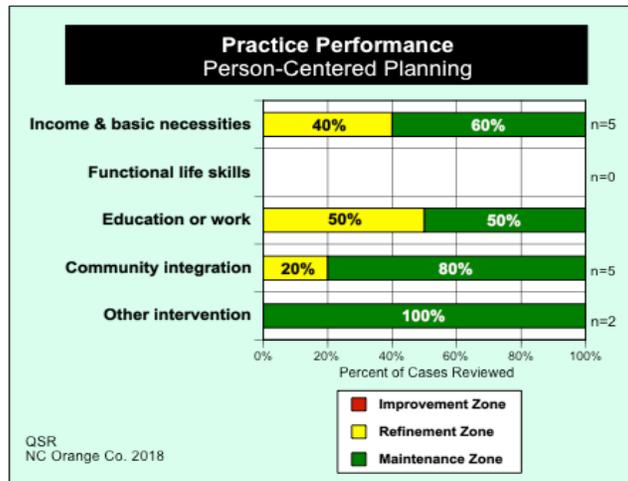


Figure 28



The reviewers indicated that the “person-centered planning” category refinement was needed in education/work for three (50%) of the six children/adolescents, income/basic needs for two out of five of the children/adolescents (40%), and community integration for one out of five (20%) of the children/adolescents (See Figure 29). The reviewers noted that the financial and economic challenges faced by many of the families impacted multiple domains of the child’s life (housing, transportation, access to services). There may be a possibility of finding new, creative ways to address the need for housing, transportation and access to services (e.g. a Medicaid alternative for undocumented families).

Figure 29



Very few areas surrounding “implementing interventions” required refinement. The areas were identified as needing to be refined included mental health recovery for one (33%) out of three of the children/adolescents (33%), safety from harm for one (25%) of four of the children/adolescents, income/basic necessities for one out of four of the children/adolescents, education/work for two (33%) of the children/adolescents, and community integration for one (33%) out of three of the children/adolescents (See Figures 30 & 31).

Figure 30

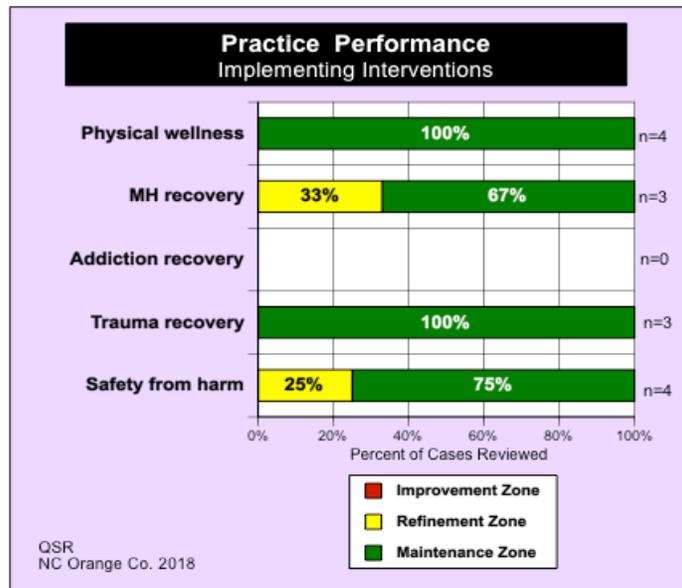
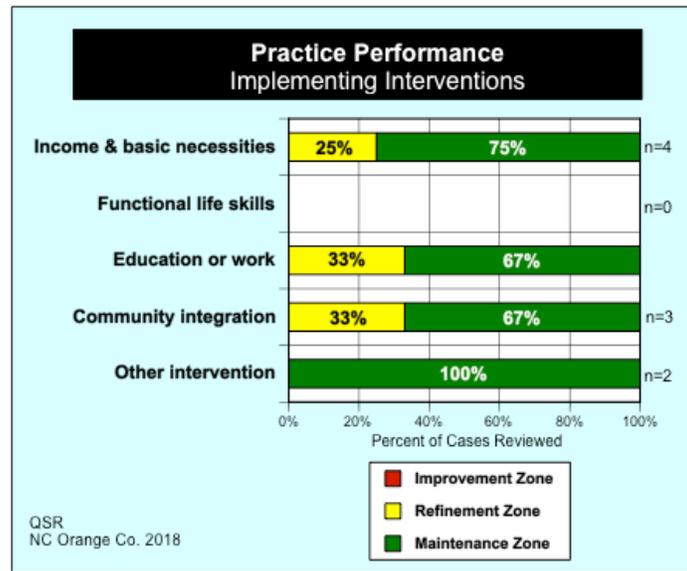
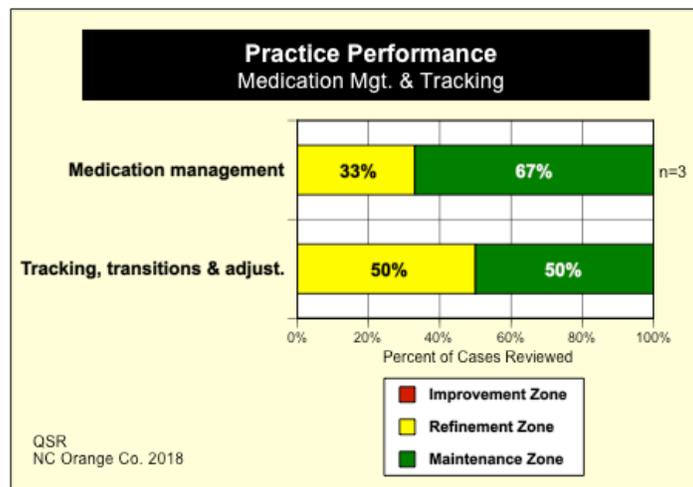


Figure 31



Lastly, when it came to “medication management and tracking” refinement was determined to be required for one (33%) out of three of the children/adolescents, in relation to medication management and for three (50%) of the six children/adolescents for tracking/transitions, and adjustment (See Figure 32).

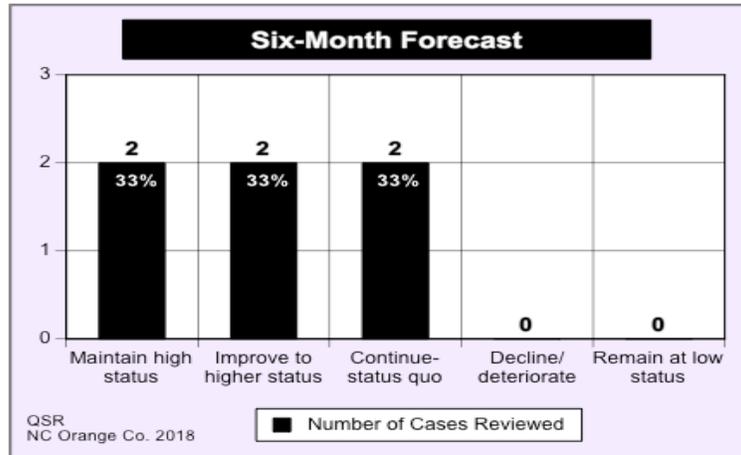
Figure 32



### Progress Predictions

Based on the information compiled from the case reviews, the reviewers predicted that two (33%) of the children/adolescents with high functioning statuses would maintain their status over the next six months. The reviewers felt that two (33%) of the remaining children/adolescents would improve resulting in them achieving a higher functioning status and the last two (33%) children/adolescents would remain at their current functioning level (See Figure 33).

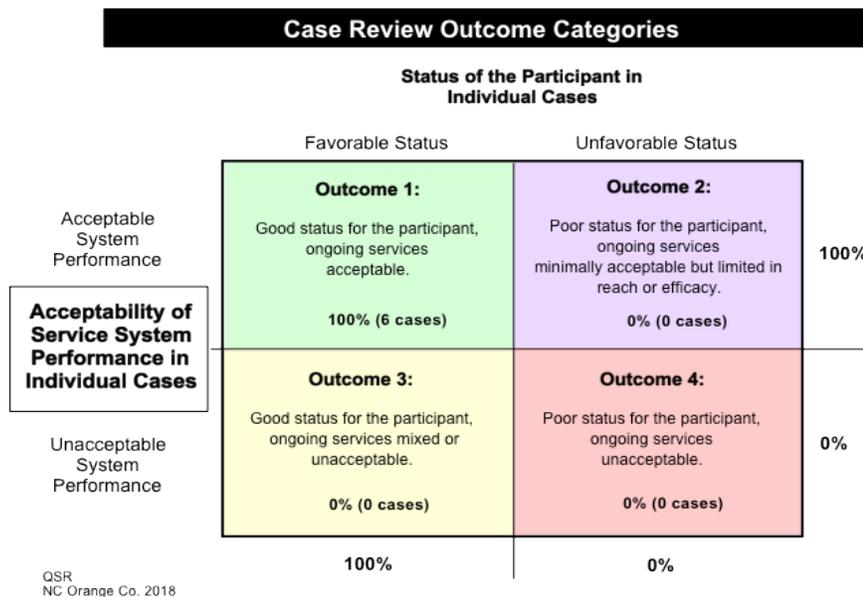
Figure 33



### Acceptability of Service System Performance in Individual Cases

All of the six review subjects encountered one or more of these challenges: adverse effects of poverty; disruption of home schedules due to conditions within the family; multiple or forced family moves over the child's lifetime; youth or child sleeping in a relative's home due to parent's work schedule; suspicion of substance abuse; history of domestic violence in the home; premature birth; child care challenges; or mental health issues/difficulty finding appropriate services for the parents. Despite the challenges that these children/adolescents and their families faced, the results from the QSR indicate that all of them were doing fairly well (See Figure 34). The findings suggested that the conditions present within their lives were acceptable.<sup>6</sup> The findings also suggested that, for these six cases, Orange County's Behavioral Health system was operating in an acceptable manner.

Figure 34



## System Analysis

A SWOT analysis was conducted using the profile and detailed information gathered by the analytic tools. The SWOT method of analysis assesses

- Strengths
- Weaknesses
- Opportunities
- Threats

### Strengths of the Orange County Behavioral Health System for Youth

The analysis identified the following system strengths which position the County to have a positive impact on future improvements and enhancements to the system.



#### Social Determinants of Health

The Centers for Disease Control and Prevention (CDC) research confirms a connection between education, economic stability, and access to health services, along with the ability of individuals to understand information about their health and the types of health services that are available.<sup>31</sup> Of these social determinants, Orange County is strong within all four domains. While Orange County is strong within all four of these domains at the county level, this does not mean that these results are universal within the county. Location can impact each of these social determinants of health. Each county is going to have regions where the social determinants of health are less than ideal. Orange County is no exception. This limitation should be kept in mind while reviewing the following results.

In regards to knowledge about health and health services, 84% of Orange County residents are reported as having high levels of health literacy.<sup>22</sup> This finding is reinforced by the fact that Orange County is ranked #1 in health outcomes and #2 in health factors (See Appendix A for more details).<sup>32</sup> These results suggest that many of Orange County's residents are receiving the services that they need to maintain their health.

When it comes to education levels, a large proportion of residents in Orange County are well educated. Approximately 58% of Orange County residents over the age of 25 have a Bachelor's degree or higher.<sup>33,21,22</sup> Of the 42% who do not have a Bachelor's degree or higher, many of these residents (35%) have obtained a high school diploma (See Appendix A for more details).<sup>21,22,33</sup> An important component in education is having support. Youth require support to help them strive for certain educational goals/dreams (e.g. attending college). To promote furthering educational opportunities, Orange County has established a program that assists youth who lack the certain social supports prepare for college. The program is called "Advancement Via Individual Determination" (AVID).

Employment rates are also very high in Orange County. Only 3.9% of residents between the ages of 25 and 64 are unemployed (See Appendix A for more details).<sup>34</sup>

Two other social determinants that are related to access to healthcare are: access to health insurance and transportation. Similar to the social determinants discussed above, a high proportion (92%) of Orange County's residents report having health insurance.<sup>21</sup> At the county level, transportation appears to be readily available with over 90% of residents owning a vehicle.<sup>35</sup> Alternative transportation options exist for individuals who do not have access to a car. Some of these public transportation options are free (e.g. Chapel Hill transit system), while others offer reduced fares for certain individuals (e.g. reduced rates for disabled individuals). These alternative transportation options reduce the number of transportation barriers faced by Orange County residents. According to key informants, these transportation alternatives have also been shown to increase community inclusion for individuals with intellectual/developmental disabilities.

All of these pieces of information indicate that Orange County's social determinants, overall, are strong and are having a positive impact on its citizens. Once again, these results may not be generalizable to the entire county. Barriers and access to limited resources in certain regions of the county may result in unfavorable social determinants of health. In these instances, Orange County can use its strengths to leverage support for the regions that are experiencing adverse social determinants of health.

## Medicaid Program

**Medicaid Service Addition.** According to Key Informant interviews, Medicaid added Research Based Behavioral Health Treatment (RB-BHT) to the regular state plan in January 2018. RB-BHT covers Applied Behavioral Analysis (ABA) and Treatment and Education of Autistic and Communication related handicapped children (TEACCH). Previously, children in the Medicaid program could only receive these services if they were approved by the early periodic screening, diagnosis, and treatment program (EPSDT) or had a Medicaid Innovation waiver slot. EPSDT is how children gain access to medically necessary services that are not available in the regular Medicaid plan. Since this is a new payment source, according to key informants, the current struggle is building a robust provider system. The RB-BHT is different than any services provided under the NC Innovations waiver. Individuals who need RB-BHT and are currently on the Innovations waiver may receive this service in addition to, not in lieu of, Innovations services as Innovations does not provide the same service.

**Medicaid Coverage for Young Adults.** The Affordable Care Act (ACA) provides that if a health insurance plan covers dependents, a young adult can usually stay on their parents plan until they turn 26. What may not be known is that children in the foster care system have benefits extending their Medicaid coverage after their stay in foster care.<sup>36</sup> The ACA allows for the continuation of Medicaid coverage until age 26 for youth in the foster care system who were receiving Medicaid at the time of their 18<sup>th</sup> birthday.

## Provider System

The analysis found 318 behavioral health providers in Orange County and 50% specifically identified they used evidence-based approaches. There is variability in the number of evidence-

based practice (EBP) offerings in OC, but EBP are widely used. The QSR specifically identified that cognitive behavioral and trauma therapy being provided. Within the Provider Inventory, trauma services were also identified as being widely provided (47%). This information suggests that the Orange County system is especially strong in the provision of engagement and outpatient services and services provided to adolescents aged 14 – 19 (49%).

While the number of providers utilizing EBPs is adequate, the system could benefit from more providers utilizing EBPs. This could be accomplished by leveraging existing evidence-based practice (EBP) providers. Providers that have advanced training in EBPs could train providers who lack experience with EBPs or provide advanced training to those who already have existing EBP training. In order to increase interest in learning about EBPs, the involved parties (e.g. Cardinal Innovations Healthcare or any other agency that incentivizes career development) may want to consider developing incentives for the utilization of these programs. These incentives could include reimbursing the providers that provide EBP services or by paying for the training of staff members on how to appropriately implement EBPs. Specifically, Orange County and its behavioral health partners may want to consider creating incentives for the utilization of manual-based EBPs.<sup>37</sup>

RECOMMENDATION: Increase the use of evidence-based practices (EBPs) among providers. Consider leveraging existing providers that have advanced training in EBPs to train other clinicians in these techniques.

One of Orange County's evidence-based programs, OASIS, is effective in treating first episode psychosis.<sup>38</sup> Nationally, efforts have been made to identify and treat individuals experiencing the onset of psychosis.<sup>39</sup> Early identification and treatment of children/adolescents experiencing first episode psychosis can increase recovery chances. Oasis is based in Chapel Hill, North Carolina. The program serves adolescents and young adults from 15-30 years (and/or their families).<sup>38</sup> The County and its partners should promote the use of the evidence-based First Episode Psychosis (FEP) programs for youth in need. The promotion of FEPs should be widespread. MCOs, school districts, and other actors should promote and implement FEP programs when possible.

RECOMMENDATION: All of Orange County's behavioral health partners should promote the First Episode Psychosis (FEP) OASIS program as a model of effective treatment.

The QSR found that once students were linked with services, many of the students were able to attend regular visits with their therapists. This may reflect the finding that most of those interviewed were satisfied with services received and those receiving services from school social workers rated that work as being very good. Another finding of the QSR case reviews was that medication management was being used adequately. Furthermore, when combined with therapy,

medication management was found to be particularly helpful for several of the children/adolescents.

During the QSR interviews it was discovered that the Chapel Hill School District was utilizing two techniques that were designed to enhance the focus of students/adolescent with attention-hyper deficit disorder (ADHD). Studies have shown that children/adolescents with attention hyper-deficit disorder (ADHD) and autism spectrum disorder (ASD) may have difficulty focusing in classroom.<sup>40</sup> The findings of these studies suggest that children/adolescents with ADHD and ASD perform worse on speech recognition tests than their non-diagnosed peers (even when matched demographically). Poor speech recognition can lead to these students not understanding what is going on the classroom and/or engaging in appropriate classroom behaviors. In turn, this can lead to them performing badly in class or getting in trouble for their behaviors/actions.<sup>40</sup> To help ADHD students focus, a school in the Chapel Hill School District uses FM radios and mindfulness techniques. Research has shown that the use of FM radios in the classroom reduces the level of background noise interfering with the ADHD child's ability to focus. This allows for the ADHD child to be able to focus on the teacher and increase his/her ability to recognize what the teacher is saying. Findings from the studies that have examined the use of FM radios in classrooms have indicated that FM radios can improve class performance and decrease off-task behaviors in students with ADHD.<sup>40</sup> Likewise, meta-analyses on mindfulness techniques have demonstrated their effectiveness. Research suggests that mindfulness techniques are capable of reducing impairment and impulsivity and increasing the cognitive capabilities of individuals diagnosed with ADHD (including children/adolescents).<sup>41,42</sup>

RECOMMENDATION: Promote the use of strategies to help students with ADHD focus in school settings.

Adoption of programs like this across Orange County's school districts could be beneficial to youth with ADHD. School districts in the county should work together to determine if widespread execution of these programs is viable and what resources would be needed to effectively implement these programs.

### *The System of Care (SOC) Expansion Grant*

North Carolina has a rich history in the use of the system of care philosophy and the wraparound process going back to the 1980s. The national children's mental health System of Care (SOC) initiative results from a NC class action lawsuit (Willie M.) which dictated that children (in the class) had the right to individualized treatment in the least restrictive setting possible. Orange County is a location in the current NC SOC expansion grant. The system of care philosophy of this grant compliments the Orange County vision of strengthening services within the County.<sup>43</sup> The following is the list of the grant's guiding principles<sup>43</sup>:

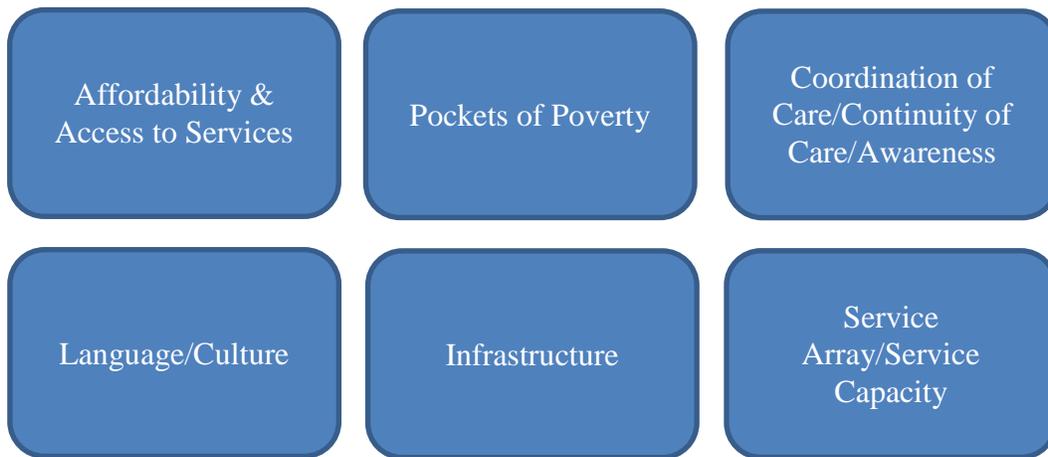
- Collaboration among agencies
- Practices that are individualized and strength-based
- Being culturally competent
- Utilizing community-based services

- At all levels, encouraging the participation of families
- Sharing role in the development of successful outcomes

Appendix H contains a schematic of the NC SOC expansion grant. According to the NC Collaborative website, the Orange County lead for this grant is Cardinal Innovations Healthcare-Central Planning.

## Weaknesses of the Orange County Behavioral Health System for Youth

The analysis identified the following system weaknesses which may restrict the County from reaching its system goals. The analysis identified the following areas of concern.



### Affordability and Access to Services

Affordability was identified in the focus group, key informant interviews, and the QSR as an area of concern. Access to behavioral health services is very difficult if children do not qualify for Medicaid. The QSR found that there are limited non-Medicaid treatment services and few private independent practitioners accept Medicaid. This lack of affordability has created a type of ‘class system’ for access to care. Those who can and those who cannot access care. Some service providers offer a sliding fee scale, but middle-class families still have difficulty affording their services. The services available via a sliding fee scale may not, necessarily, reflect the types of services or level of care that is truly needed by the client. Because there is a finite number of state service dollars and grant funding opportunities that can be devoted to behavioral health services, families may go without treatment services. Even when funding through block grant, other grants, and insurance, is available, each source has its own set of rules regarding what services they cover. This leads to certain types of services not being available, despite the level of need for these services. Some providers look for donations to help those who cannot pay access the services that they require.

The NC Innovations waiver does increase access to care for individuals with IDD; however, this waiver has a twelve-year waiting list. There are also a limited number of slots in this waiver, as determined by the NC General Assembly, and the allocation process outlined in the waiver is

based on a per capita allocation per MCO and then an equitable distribute of slots across each county within the MCO balancing against each county's current waiver slot allocation.. Because of the slots-per capita formula and the number of waiver slots already allocated to Orange County, the County receives few new slots. A waiver slot is available if someone leaves the waiver or if new slots are made available to the MCO by the General Assembly and approved through CMS. Waiver slots are typically available once annually or if the General Assembly provides an additional allocation of funding that is approved by CMS. The entry into this waiver is now based on a first-come-first-serve basis. When the state moved from a fee- for- service IDD program to the Innovations waiver, it removed the acuity level-based prioritization.

Across the entire state, there are about 12,000 adults and children with IDD waiting for waiver services (slots). Orange County has 177 people (both adults and children) receiving Medicaid Innovations waiver services. Orange County has 87 children with IDD that qualify but are on the wait list for the waiver. They can access regular state plan Medicaid services in the meantime, but services are limited for this population. According to Partners Behavioral Health Management <sup>44</sup> (2014), B3 services are available for children ages 3 – 21 who are functionally eligible for the IDD Innovations waiver but not enrolled. 63 children receive this type of services.

Due to the number of individuals on the waitlist, key informants have heard of families moving to another county that has more waiver slots. In addition to the limited slots and the long wait list, once on the waiver, children need to be re-evaluated annually. Due to the repeated eligibility reevaluations, families fear losing eligibility and therefore losing access to services. There is confusion in the Orange County community as to whether children are able to receive both MH and IDD services while on the waiver. According to Cardinal Innovations Healthcare, children should receive the IDD and MH services they need while on the waiver unless the State service definition does not allow it or the eligibility criteria for the service does not allow it. This is an area where the service limitations can be clarified and shared across the community.

Without the IDD waiver, access to an array of services through Medicaid is not possible and gaining access to appropriate services from the providers of mental health services is difficult. Key informants shared that the behavioral health system has very few clinicians trained in both mental health and intellectual/developmental disabilities, which is a nationwide trend. Key informants also noted when a child, with both conditions, experiences deteriorated severe behaviors, the child may need to go out of state for treatment. Data from the Provider Inventory confirms these statements. Of those who provided information on the behavioral health areas that they specialize in, there are no providers specializing in the treatment of both substance use and intellectual/developmental disabilities. Furthermore, only four providers specialized in all three behavioral health focus areas. Out of these four providers, three were solely located in Hillsborough. Based on this information it is recommended that cross-training be promoted between behavioral health disciplines by all behavioral healthcare entities responsible for career development (e.g. Cardinal Innovations Healthcare, public behavioral healthcare agencies, or private behavioral healthcare agencies) in order to increase access to care for children/adolescents with dual diagnoses. The responsible entities could promote cross-training by paying for the classes/training that their employees need to become cross-trained.

RECOMMENDATION: Promote cross-training between behavioral health disciplines in order to increase access to care for children/adolescents with dual diagnoses.

Stigma also stops people from getting help for themselves or their family and friends. In Orange County, it is felt that positive changes have occurred in this area, but there continues to be room for improvement. Stigma creates situations where people wait until they are in a crisis before accessing care due to a reluctance to admit needing help. It was reported that if a person in need of behavioral healthcare services is involved in the criminal justice/juvenile justice systems, a prejudice occurs on the part of providers, and clients are seen as 'less than' and that they will not be successful in services.

While Orange County is doing well overall, there are regions within Orange County where adverse social determinants of health impact access to care. Based on the GIS maps, information from focus group members, and responses from key informant interviews, it appears that Hillsborough, Cedar Grove, and Cheeks have higher concentrations of unfavorable social determinants of health (e.g. high rates of poverty, lack of transportation). These areas lack transportation options for individuals who do not have a vehicle, have a higher proportion of residents receiving Supplemental Nutrition Assistance Program than other areas of the county, and lack providers that speak languages other than English yet have a higher proportion of minority residents. It is recommended that Cardinal Innovations Healthcare enhance the services in these areas, and other locations with adverse social determinants of health, by expanding the provider network to ensure that the needs of the children/adolescents living in these areas can be met.

RECOMMENDATION: Enhance services that are being delivered in regions with adverse social determinants of health to ensure that the needs of the youth living in these regions are being met.

### Pockets of Poverty

Orange County overall has strong social determinants of health, but there are several areas where social challenges are evident (See Appendix A for more details).

- Areas with high levels of food stamp use - Hillsborough, Cedar Grove, and Cheeks.<sup>45</sup>
- In Eno 17.6% of residents did not have a high school degree.<sup>33</sup>
- 16% of Orange County's citizens speak a language other than English at home.<sup>21,22</sup> Many of these individuals live in Carrboro and Chapel Hill (See Appendix A for more details).<sup>22</sup>
- 15% of those under age 19 that live under 200% of the poverty limit are uninsured.<sup>22</sup>
- Lack of affordable housing.<sup>35</sup>
- High level of income inequality.<sup>22,45</sup>

Poverty is shown to affect prevalence of mental illness, substance use disorders, childhood adverse conditions, as well as overall health and wellness.

Affordable housing was identified through key informant interviews and the QSR as an area of concern. Lack of stable housing and homelessness were identified in the QSR. Affordable

housing can be linked to access to care and is considered a critical social determinant in health outcomes. While the number of individuals who are homeless in Orange County is low, the fact that 46.3% of households spend 30% or more of their income on housing is concerning.<sup>35</sup> The Orange County median household income in 2018 was \$61,100.<sup>22,45</sup> An article from the Daily Tar Heel indicated that Orange County is one of the top five counties in North Carolina for housing prices. According to this article, the average listing price is around \$463,000.<sup>46</sup>

### **Coordination of Care/Continuity of Care/Awareness**

The focus group, key informant interviews, and QSRs identified a lack of awareness of available services and uncertainty on where and how to access services. The lack of knowledge of resources creates insufficient service delivery, incomplete evaluations, lack of collaborative treatment efforts, and families often feel lost. The QSR revealed instances where therapy services were not provided or lapsed due to lack of follow through or gaining authorizations for services, referrals for behavioral health services did not occur despite identification of need, and there was a lack of continuity of care following the discharge of a child/adolescent from a hospital to providers in their school and/or community.

One way that this issue could be prevented is to use case management services to a greater number of students with behavioral health disorders. Case management functions can fall to a variety of agencies. The wraparound process, used in the SOC grants and efforts, often has a fluid case management structure. For example, if a family is more involved or has a stronger relationship with a school social worker than other service providers, the school social worker takes on the care coordination/case management function. The ability to have flexible case management responsibilities depends on a community's training program since training in the wraparound process is required. In other counties/states, the care coordination/case management function falls to a single agency. When these efforts fall to a single agency, the case manager is responsible for coordinating with all of a family's service providers.

If a child is not involved in a SOC program, case management will fall to the agency who is involved with the child and if the agency provides this type of service. Agencies who often provide case management services are foster care, child welfare, juvenile justice, and some mental health agencies and schools. The agencies that are able to provide case management services vary by county and state. Regardless of whether the case management falls to one agency or multiple, the case manager has to navigate multiple perspectives, approaches, desired outcomes, and preferences to build a comprehensive plan of care. Furthermore, regardless of what agency takes on the role of the case manager, case management services require the participation of multiple individuals (e.g. therapist, parents, school teachers, school social workers) in the youth's life.

Unfortunately, in many situations, children and families do not have access to case management services and service providers often try to fill this gap but their ability to do this is limited because this service may not be reimbursed. Even when case management services are accessible, barriers arise. Successful case management services are predicated on establishing regular communication between group members. As demonstrated in the QSR case reviews, involving therapists in activities or services outside of independent treatment can be difficult due to the inability of therapists to bill for team meetings. They are only able to bill the student for

individual therapy services. This limitation is not unique to Orange County; most Medicaid fee-for-service systems experience these same challenges. Another barrier to successful case management is being able to identify the needs of the child. In some instances, connecting with youth to identify their needs can be complex since they may not be as open with their family members or therapists. One solution to this issue would be the incorporation of role models or mentors into the treatment teams. These individuals may be able to connect with children/adolescents suffering from behavioral health conditions in a different way than their family members or therapists.

Orange County should take several steps to improve the coordination of care for youth. First, Orange County should work with the state Medicaid office and their county MCO to communicate the need for case management services to be reimbursable and available to a broader group of children. Medicaid, dependent upon funding approval, can offer case management services as a Medicaid regular state plan service or through a waiver. For those that are not covered by Medicaid, some insurers offer this service for children who have high costs in an attempt to decrease costs by coordinating their care. Another effect that this would have would be that it would allow therapists to bill for team meetings. If therapists are able to bill for team meetings, they can dedicate more time to collaborating with other members of the treatment team. This can help improve the level of care that the youth are receiving by increasing communication and identification of needs. The second step that Orange County and its partners should take is that it should utilize grants, such as the SPF-SIG<sup>28</sup>, to build and mobilize local community resources. These resources can then be leveraged to develop a workforce of mentors/role models. Having mentors/role models on treatment teams could help the treatment team identify the child's needs because the mentor/role model may be able to develop a different type of rapport with the youth than family members, therapists, or social workers are able to generate.

Communication among outside agencies that are involved with a youth is critical to assure that each are working toward the same goals for the child and his or her family. The QSR found that communication protocols are in place when multiple agencies are working with a child. It is recommended that these protocols be reviewed periodically to assure that they are being followed. Staff training may be necessary so that all parties engage in the procedural standards.

**RECOMMENDATION:** Establish a formal periodical review of the communication protocols that are in place among collaborating agencies to assure that they are being followed.

Key informants affiliated with an agency reported that system navigation is difficult. This is exacerbated by the fact that Orange County clinicians and agencies tend to operate in isolation. This isolation shrinks service options for children, not because they are not available, but because they do not know they exist. In the case of early intervention for children with developmental delays, there is a lack of communication on service options after the child ages out of this program at age four. A comment was made that many people don't even know there is a Medicaid waiver for people with IDD. This creates a situation where families are not aware of options during a critical developmental time in the life of their child. Another challenge is

that most youth behavioral health programs, such as a dual diagnosis (MH/SUD) program, discontinue services when the child turns 18 years of age. This points to a lack of continuity of care during the transition age to adulthood. Key Informants noted that some public agencies have rigorous admission criteria with some agencies requiring clients to have stable symptoms prior to serving them.

During the development of the online provider survey the team had difficulty locating substance use disorder treatment providers. Information provided by the individuals that attended the focus groups reinforced the finding that locating these providers can be challenging. After speaking with a key informant from Cardinal Innovations Healthcare, it was confirmed that there is only

RECOMMENDATION: Verify the number of certified or licensed substance abuse professionals that are available to Orange County residents.

one certified substance abuse treatment agency in Orange County (Freedom House) that receives federal substance use block grant funding. No other providers indicated that they, or their staff members, were certified (e.g. certified substance abuse counselor) or licensed (e.g. licensed clinical addiction specialist) by the NC substance abuse professional board; however, this information may be incomplete.<sup>47</sup> Based on this, it is recommended that the number of certified and licensed substance abuse professionals that are available to Orange County residents be verified.

Similarly, key informants noted the lack of coordination across the County regarding behavioral health initiatives. Throughout the project initiatives such as the Healthy Carolinians Mental Health subcommittee, the United Way 2-1-1 System for service navigation, the University of North Carolina Now Pow system were discovered and introduced to the project stakeholder workgroup. Those involved were not aware of other efforts underway. It seems as though there is no one assuming the central authority for behavioral health in Orange County, or at least coordinating communication among stakeholders. In response to these findings, Orange County and its behavioral health partners together should authorize the development of a children's coordinating committee. A lead agency should be tasked with steering the committee. Workgroups should be constructed to address targeted areas of concern. Based on the analysis findings, workgroup focus areas could include: bilingual services, prevention and promotion, financing (waiver, affordability of services), collaboration between service systems (IDD, foster care), and Crisis Services. These workgroups would work separately on their respective target areas. Several times a year the full coordinating committee would meet and, at this time, a representative of each workgroups would present their findings. Orange County may want to consider leveraging the work done by the Birth through Third Grade Interagency Council (B3 Council) and other children's committees when developing the coordinating committee.

RECOMMENDATION: Authorize an Orange County children's coordinating committee with a lead agency and require member agencies to include parents of children with behavioral health conditions.

The analysis identified several child-focused groups such as the B-3 Interagency Council established by Session Law 2017-57, Section 7.23I. This state level council, according to its May 2, 2018 progress report, lists that one of its powers is to facilitate an interagency plan for a coordinated system of early care, education, and child development services to fulfill the developmental requirements, as well as the educational necessities, of all children between the ages of 0 to 8.<sup>48</sup> This means that actions of this council could potentially impact Orange County residents who are at or below the 3<sup>rd</sup> grade education level. Orange County should consider monitoring this Council and provide input as needed. Orange County should also monitor the North Carolina Association of County Directors of Social Services' (NACDSS) Children's Services Commission.<sup>49</sup> Orange County is already a member of this group. Remaining active in this group is important since it is involved in advocating for policies related to the social problems being faced by children/adolescents living in North Carolina.<sup>49</sup>

Responsibility for coordination of care and system improvements falls to multiple parties. Increasing collaboration between systems with funding and service delivery is critical for child and family success. Often families and children are caught between differing system goals. Juvenile justice exists to keep communities safe, schools exist to educate children, child welfare exists to keep children safe, and behavioral health exists to reduce the impact of behavioral health conditions. Despite specializing in different areas, all of these systems have the same over-arching goal, which is to foster an environment where all children and families are healthy and safe.

A key informant identified that children in foster care are not getting timely screenings for behavioral health services. While there are efforts between Medicaid and the foster care system to assure the connection to service, Orange County become may want to check with Cardinal Innovations Health care to see how these efforts are being realized in the County's communities. Without timely services, children in foster care often cannot return home and experience increased symptoms which can affect their involvement in school, home, and community. Furthermore, Orange County should disseminate the knowledge that Medicaid coverage may be available to former foster care children after the age of 18. This information could help increase access to services for former children/adolescents that fit the criteria for the extended coverage.

RECOMMENDATION: Disseminate the knowledge that Medicaid coverage may be available to former foster care children after the age of 18.

### **Language/Culture**

Providing behavioral health services in a way that is meaningful and relevant is key to individual success. When a clinician does not speak the same language as the client, it can impede services and impact access to services. Since culture plays such a huge role in the provision of effective behavioral health services, this is a gap in the service system. For children, the lack of bilingual services can impact success in school, home, and community.

- 16% of Orange County’s citizens speak a language other than English at home.<sup>21, 22</sup> Many of these individuals live in Carrboro and Chapel Hill (See Appendix A for more details).<sup>22</sup>
- Over 16% speak another language at home and of this 16%, 37.7% are unable to speak English proficiently(See Appendix A for more details).<sup>21, 22</sup>
- Orange County has youth from the Cherokee tribe.

The analysis revealed there are insufficient bilingual clinicians in Orange County. While larger providers such as hospitals have robust translation teams, most providers do not have translation or bilingual offerings. Providers that receive reimbursement from Cardinal Innovations Healthcare are required to provide “interpretation services by telephone and in person to enable Client to effectively communicate with Contractor, as applicable” according to the provider contract, however. Of the 46 providers that reported providing language services, 40 (13%) provided bilingual or multilingual services. Key Informants saw a need for Spanish and Karen speaking providers. Karen patients often have difficulty getting MH care.

Providers identified difficulty hiring bilingual clinicians due to this skill set demanding a higher salary which outpaces the provider’s reimbursement levels. The QSR revealed that the MCO (Cardinal Innovations Healthcare Behavioral Health) in Orange County appears to offer fewer treatment alternatives such as Spanish speaking therapy to local students. This results in families traveling long distances to other counties with a richer array of bilingual services. There was a comment that the only Orange County nonprofit center that had Spanish speaking clinicians no longer operates which means the closest clinic is in Durham. This situation triggers transportation barriers. To improve access to care and address the needs of immigrant families Orange County and the MCO should assess what steps could be taken to expand the number of bilingual services providers practicing in the county. Access to care for immigrant families could be improved upon in other ways, too. As seen with the QSR reports, some of these language barriers may result from these families being new to America. Families that have just moved to the States that are undocumented can face barriers accessing care. In many cases, they may not seek out services because of their undocumented status, language barrier, and/or cultural barriers.<sup>50, 51</sup> This can lead to the decomposition of their mental health and, in turn, their physical health may be affected. Studies have shown that undocumented immigrants have a higher likelihood of inpatient hospitalization and re-admission than their documented counterparts.<sup>51</sup> Earlier intervention may avoid behavioral health crises escalating to the need for inpatient care. Grant funding is the primary mechanism used in other communities to serve these individuals to avoid the legal restrictions that are common with other sources of funding.

**RECOMMENDATION:** Expand the number of bilingual services providers practicing in the county to improve access to care and address the needs of immigrant families.

### Infrastructure

Nine percent of Orange County residents do not have a vehicle available for transportation and are reliant on friends, family, or public transportation. While Orange County does have public

transportation services that are free or low cost in some areas, and the Demand Response Service program which is available to rural residence, these transportation options still have drawbacks. Free public transportation services are limited to certain areas within Orange County (e.g. Chapel Hill transit). Other options offer reduced rates for individuals that meet certain criteria (e.g. Demand Response Services- Medicaid beneficiary or resident of rural portion of Orange County). In instances where an individual is poor, not a Medicaid beneficiary, and/or lives in a location without access to free public transportation services, their lack of access to transportation could impact their access to and engagement in healthcare services.

During the course of the study, an additional transportation barrier was discovered. The emergency department of UNC Health indicated that they were facing challenges transporting patients from the emergency department who required another level of care. UNC Health indicated that from Jan 2018 – July 2018, patients in need of transportation waited a total 4 months for transportation. It was noted that the responsibility for transportation rests with the County. The County has given the responsibility of transporting individuals requiring alternative levels of care to its law enforcement agencies. Of course, the primary concern of law enforcement agencies is community safety. This can make scheduling transportation difficult. In turn, some feel that the transportation of individuals to other facilities may be seen as a lower priority among law enforcement agencies. Focus group members and key informants also indicated that there was a lack of emergency transportation services. In situations where individuals stay in the emergency department either because of lack of transportation or there is no room in the psychiatric units, it is referred to as *emergency room boarding*.

Key Informants noted that there is inadequate reimbursement for regular foster care and if a child or family does not rise to the level of functioning for *therapeutic* foster care, it is difficult for the child in foster care to receive appropriate services. This creates a crisis-oriented system as well, waiting until situations are critical before services are provided.

As mentioned previously, the Medicaid Innovations waiver is underfunded as evidenced by NC having 12,000 on the wait list.

### **Service Array/Service Capacity**

A service array ideally offers a continuum of levels of care that includes promotion and prevention at the front-end and recovery supports following treatment. The analysis found that Orange County residents are experiencing...

- Lack of prevention and early intervention services
- Long wait in emergency departments for next level of care (20 to 30 children wait for 7 to 10 days for next placement)
- Limited mobile crisis and outreach services
- Few providers serving children ages 0 to 5 and young adults
- Children placed in higher levels of care than needed
- Lack of recovery support services

The analysis identified 318 behavioral health providers in Orange County. The *Good and Modern* analysis identified a lack of a comprehensive behavioral health service array in OC. This is evident in the prevention and early intervention areas. Prevention in the mental health and substance use areas involves building protective factors and skills, increasing support, and

reducing risk factors or stressors. Prevention efforts occur *prior* to a diagnosis. An example of a prevention program is eliminating underage drinking. Early intervention services address concerns early in their occurrence with the goal to remediate and prevent exacerbation of symptoms. An example of an early intervention program is Mental Health First Aid training and First Episode Psychosis programs. While there are several grant efforts (previous and current), it appears the county could benefit from additional programs.<sup>52,53</sup>

To prevent the exacerbation of conditions, the county should also consider providing mental health and substance use screening to all students. Universal screening is one method to identify youth who are struggling which can then be followed up with early intervention. Administering a screening tool to all students reduces the stigma associated with *some* youth being singled out for assessment.

RECOMMENDATION: Consider providing universal Behavioral Health screening in schools.

There are multiple ways children/adolescents can enter the behavioral health system (referral by family, school, justice system, etc.). One of the ways that they may be referred is through other care providers, such as their primary care physician. Currently, the Orange County Health Department has clinics that co-locate behavioral health and primary health services. These locations provide screenings, counseling services, and medication to clients. UNC Department of Pediatrics is also in the process of implementing a program that integrates behavioral and primary care.

RECOMMENDATION: Consider increasing the co-location of services in areas where youth are already engaged. (For example, schools, primary care offices, health clinics; community centers, libraries)

Without sufficient prevention and early intervention services, a system tends to be crisis-driven. If preventative and early intervention services are not available, the stress levels in families and schools rise. Energy is expended in response to increased behaviors and behavioral health symptoms such as anxiety, depression, and acting out. The County should advocate with its MCO for a more balanced behavioral health system by adding to the service array in areas with limited options.

RECOMMENDATION: The County should advocate with its MCO for a more balanced behavioral health system by adding to the service array in areas with limited options.

When services are finally offered, there is push-pull between the parent's and school's desired level of care for the child and what the clinician/insurer feels is needed. Families and school sometimes want out-of-home services when lower levels of care are indicated. It is difficult to convince parents to use in-home or in-community services when they are under a great deal of stress and/or have other children in the home. The county should consider increasing the availability of formal support programs (e.g. respite, alternative therapies, and support groups) to parents and caregivers. These programs could alleviate some of the stress that the parents are facing. The county may want to consider assisting single parents. The economic and social burdens faced by single parents who are raising children/adolescents with behavioral health conditions can make accommodating their child's needs difficult. To illustrate, they may have to work multiple jobs, have little (if any) money that can be set aside to pay for treatment services, or they may not have access to a vehicle. All of these situations could impact their ability to access the services that their children/adolescents need. A little over 7% of Orange County's residents reported being single parents (See Appendix A for more details). Programs that could alleviate the stress of single parents or that are able to assist single parents in finding employment opportunities that would be willing to work with them to develop schedules that accommodate their child/family's needs would be beneficial. A variety of agencies can fund the development of these programs. To illustrate, foster care agencies can provide respite care through the Department of Social Services, charitable organizations can fund the development of these programs, and Orange County's MCO can supplement services with these types of programs. Orange County should work with these organizations/agencies to fund the development of programs that can the availability of more formal supports (e.g. respite, alternative therapies, and support groups) for parents, especially single parents, and caregivers.

RECOMMENDATION: Increase availability to parents and caregivers of more formal supports such as respite, alternative therapies, support groups, etc.

Schools can expend large amounts of resources attempting to de-escalate a child. If this continues without remedy, the school may look to out of home treatment too. There can be a big difference between what is deemed medically necessary and what is perceived to be needed by the family/child.

Key Informants suggested that preventative programs and early intervention services should be provided in normalized environments such as schools, physician offices, and YMCAs. They mentioned that unless there is private insurance or Medicaid, situations will escalate to a crisis level. Even when early intervention services are available, trying to get individuals to access these services to prevent crises from occurring can be difficult. This lack of access can occur from a lack of the services offered or the service lacking the capacity to take on new clients.

The Good and Modern analysis shows that there is a lack of services on each end of the continuum. There are few providers specifically indicating they serve ages 0 to 5 and young adults. There is also a lack of recovery supports to help maintain gains made during the treatment episode. Key informants mentioned there are few structured/manual-based EBP

programs offered in OC. Manual-based therapies help proven therapies to be replicated in communities with similar results.

Only six providers indicate the offer telehealth services. While another 46 providers use video-conferencing techniques to communicate with patients, it is unknown in what capacity these services are used. Orange County should promote the implementation of telehealth/telepsychiatry services among providers. To implement these services Orange County could seek aid from NC-STEP and the Mid-Atlantic Telehealth Resource Center. By accessing these resources, the county could identify if there are any barriers to the implementation of telehealth services (e.g. reimbursement), and determine what methods/techniques would promote the adoption of telehealth services. To finding funding sources and advocates for the development of telehealth services county-wide, Orange County could identify local champions who could engage stakeholders. To increase awareness and education about telehealth services, Orange County could use the resources provided by NC-STEP and the Mid-Atlantic Telehealth Resource Center to edify its providers on how telehealth can be used and implemented within their agency/organization. This could be done through a variety of different social platforms (e.g. social media, newsletters, meetings) or via training sessions. Since some of Orange County's hospitals already use telehealth services, the county could speak with these providers to see if they would be willing to give the training sessions.

RECOMMENDATION: Increase the use of telehealth/telepsychiatry.

While Orange County has a strong resource in University of North Carolina (UNC), Key Informants indicate that there is often a wait list for these services. Since appointment times are scheduled so far into the future, people do not show when the time arrives. A high no-show rate has a negative impact on service availability because appointments are scheduled, yet clients miss the appointments. Orange County may want to consider using the NIATx model to increase client engagement and reduce the number of clients not showing up for appointments. The NIATx model was designed to offer specific process improvement steps that were targeted at reducing wait times, reducing no-shows, increasing admission to treatment, and increasing continued client engagement.<sup>54</sup>

RECOMMENDATION: Utilize the NIATx model to increase access to reduce the number of individuals not appearing for scheduled appointments.

Strong resources do not equate to an adequate system if there are insufficient numbers of and limited capacity within existing resources. The QSR case reviews suggested that shortages in resources (therapist, staffing, etc.) lead to instances where students with less severe problems were not receiving services promptly.

Key informants reported that admissions into high intensity out of home treatment services, like intermediate care facilities for individuals with intellectual/developmental disabilities and

psychiatric residential treatment facilities occur when lower levels of care are not available. Key Informants indicate that if a child is suicidal or at risk of harming others, there is a lack of services options outside the emergency department. There are limited mental health crisis and outreach efforts and a lack of mobile crisis services. Only one provider in the inventory specifically listed mobile crisis as a service. Once a child arrives at the emergency department, if these youth do not meet the *medical necessity* level of need for admission, they wait in the emergency department.

The University of North Carolina Medical Center is the safety net and indicates they have minimal admission criteria, meaning there are few barriers to admission into the hospital. They report a dramatic increase in all behavioral health visits in the emergency department. Of the 22,000 behavioral health arrivals to the emergency department, 2/3 of them are from Orange County. Between 2009 and 2015 Orange County residents between the ages of 0 and 24 were responsible for a 5% increase in the total number of emergency room mental health visits.<sup>1</sup> Not everyone needs emergency room services but if mental health urgent care, crisis services, and other lower levels of care are not available, people will turn to emergency department for assistance. Establishing a screening process with stringent referral and transfer protocols would assist Orange County in reducing emergency department use and move people to appropriate levels of care.

RECOMMENDATION: Establish a gatekeeping process for University of North Carolina Emergency Department.

Spring and fall are peak times for children and adolescents to come to emergency department. This may be due to increased pressures on the child/adolescent with changes in summer and school environments. The University of North Carolina emergency department has a number of patients with mental health issues waiting up to 60-70 hours on average for placement. Twenty to thirty of those waiting are children or adolescents and they wait between 7 to 10 days for their next placement.

Overall, the analysis found that only 35% of children aged 0 to 18 who need MH services, receive MH services.<sup>55</sup>

### Opportunities for the Orange County Behavioral Health System

Opportunities are external factors that can benefit the County’s behavioral health system. The analysis found opportunities in the following areas.



Due to Orange County’s strong social determinants of health, the County can leverage these to increase supports for children needing behavioral health services. Churches, scouts, informal sports, youth groups, youth coalitions, are examples of supports occurring naturally in communities. These supports tend to be more sustainable than supports obtained through grant funding, which typically ends. Due to the investment of time and efforts on the part of community members, they are invested in their development and sustainability. NC has a rich history with prevention and system of care grants, both of these efforts has built a framework that can be supported with natural supports. In the area of prevention, involvement in the community, strengthening social skills, providing emotional support, and supporting families, builds resiliency in youth and decreases the risk of behavioral health concerns in the future.

The analysis found positive attitudes about the clinicians in Orange County. Key informants reported clinicians being highly trained and the QSR found the relationships between clinicians and children and families, positive and strong. Providing avenues to capitalize on the strong clinician base in Orange County could help strengthen the overall behavioral health system by including their input and observations on Orange County children and families. One finding of these analyses was that a grant was awarded in 2015 and funded through September 2018 to the Behavioral Health Resource Program at UNC, School of Social Work.<sup>56</sup> The grant promoted the development of a program called Now is the Time, Carolina! The program was designed “to train 2,400 faculty and staff in Mental Health First Aid” (Substance Abuse and Mental Health Administration, 2017a, Grant Award Number: SM062789-03 Section, para. 1). This provides an opportunity for Orange County to ascertain the existence of trained mental health first aide personnel and their ability to serve Orange County.

The Medicaid program provides several opportunities for Orange County. Mentioned early, Medicaid recently began reimbursing transportation services to two crisis centers in North Carolina (outside Orange County). This may provide an opportunity for Orange County to reduce emergency room admissions and boarding.

Medicaid Transformation provides Orange County many opportunities to improve the health of its residents through coordinated care. This includes the possibility of reimbursement for services and/or supports that were not previously reimbursable in the fee-for-service system. The flexibility that the new capitated payment allows may include those which impact SDH. Examples might be paying for telephone service to assist families with children with SED who are in crisis or paying for involvement in social events to assist in improving function levels and decreasing social anxiety.

### **Threats to the Orange County Behavioral Health System**

The analysis looked to identify conditions likely to negatively impact the County’s efforts to improve behavioral health services.

Underfunded System

Lack of Affordable Housing

### ***Underfunded System***

The analysis identified several areas indicative of an underfunded system. The first area is the Intellectual/Developmental Disabilities Medicaid Innovations Waiver. This waiver receives few new slots for Orange County children (250 slots are planned to be added statewide between 2017 – 2022). The waiver has a 12-year waitlist and few people from Orange County currently receive waiver services (a total of 199 (both adults and children) are current waiver recipients). 88 Orange County children are on this wait list. The second area was related to acquiring services. The analysis revealed that unless a child was eligible for Medicaid, affordable services were difficult to obtain. There appears to be limited funds available to assist children/adolescents and/or their families in obtaining behavioral health services. Financial barriers can lead to untreated and undertreated behavioral health conditions. In turn, this may lead to children/adolescents becoming involved in the juvenile justice and/or child welfare systems. The analysis also revealed that prevention, early intervention and recovery supports were underfunded and, as a result, sparse. In regards to treatment, Orange County only has one SAMHSA block grant substance abuse treatment program. These programs are important because they use the American Society of Addiction Medicine (ASAM) levels of care distinction. By using the ASAM levels of care distinction, the program reduces the number of individuals receiving levels of care (higher or lower) that are not appropriate for them based on their needs.<sup>57</sup> The final area that suggested that Orange County has an underfunded system, was related to the use of the University of North Carolina's (UNC) emergency department. UNC's emergency department is experiencing an influx of children/adolescents requiring behavioral health services. According to key informant interviews, very few children/adolescents are deemed to be ineligible for admission to the emergency department. This influx combined with a lack of timely transfers to alternative levels of care reinforces the idea that the system is underfunded.

### ***Lack of Affordable Housing***

Another area that was uncovered as needing improvement was the lack of affordable housing. As noted above, 46.3% of residents spend more than 30% of income on rent or mortgage. According to SAMHSA, individuals need a place to live that is within their budget and makes them feel safe. If individuals are not safe or they are spending too much of their income on their residence, then it will be difficult for them to attain a healthy lifestyle and, in turn, good health outcomes.<sup>58</sup> Access to affordable housing is a key social determinant of health. The lack of affordable housing can result in increased stress amongst family members and lead to the families having to choose between allocating money to their mortgage/rent to keep their current resident or to the healthcare services that their family members needs to live a healthier life.<sup>59</sup>

## **Summary of Recommendations**

The results of these analyses suggest that Orange County's Behavioral Health System has several very strong elements. Despite having strength in several important domains, there are areas that could be improved upon to increase prevention efforts, identification of behavioral health needs, and access to care and treatment retention for Orange County residents under the age of 24. Specific recommendations are made throughout the report. A summary of the study's findings and recommendations are provided below.

## Prevention

1. Utilize the SAMHSA Strategic Prevention Framework - State Incentive Grant (SPF-SIG) prevention model to build and enhance Orange County Behavioral Health's prevention system
2. Provide universal Behavioral Health screening in schools

## Emergency/Crisis

3. Establish a gatekeeping process for University of North Carolina Emergency Department

## Programs/Program Strategies

4. Promote the First Episode Psychosis (FEP) program as a model of effective treatment.
5. Increase the use of evidence-based practices (EBPs) among providers. Consider leveraging existing providers that have advanced training in EBPs to train other clinicians in these techniques.
6. Promote the use of strategies to help students with ADHD focus in school settings
  - a. Consider audio FM radio systems in classrooms for ADHD students to assist them in attending to instructional comments.
  - b. Employ meditation or 'mindfulness' strategies for ADHD students to help them better develop improved powers of focus and concentration.
7. The County and its behavioral health partners should move toward a more balanced behavioral health system by adding to the service array in areas with limited options

## Provision of Services

8. Encourage expanding provider network adequacy to allow for more services to be delivered in Orange County to increase the availability of service agencies with good response and follow-up to address students' needs.
  - a. Concentrate service enhancements on areas with adverse social determinants of health.
  - b. Expand the number of bilingual services providers practicing in the county to improve access to care and address the needs of immigrant families
9. Promoting cross-training between behavioral health disciplines in order to increase access to care for children/adolescents with dual diagnoses
10. Increase the use of telehealth/telepsychiatry
11. Verify the number of certified or licensed substance abuse professionals that are available to Orange County residents

## Service Organization/Coordination

12. Establish a formal periodical review of the communication protocols that are in place among collaborating agencies to assure that they are being followed. These protocols were developed with the intent of improving service coordination and communication among agencies when dealing with students who have behavioral health issues. Update protocols as necessary and re-train staff when required.

13. Use case management services to actively include all service providers in functional treatment teams (therapist, parents, school teachers and school social workers, etc.). Establish regular communication between all team members.
14. Provide case management to a greater number of students who have behavioral and emotional challenges.

#### **Treatment Retention**

15. Utilize the NIATx model to increase access to reduce the number of individuals not appearing for scheduled appointments.
16. Consider increasing the co-location of services in areas where youth are already engaged. (For example, schools, primary care offices, health clinics; community centers, libraries)
  - i. Mentoring programs
  - ii. Mentoring/mindfulness strategies
  - iii. Health services
  - iv. Screening measures

#### **Assist Parents/Guardians**

17. Disseminate the knowledge that Medicaid coverage may be available to former foster care children after the age of 18.
18. Expand mentor programs to provide adult role models for children and youths.
19. Increase availability to parents and caregivers of more formal supports such as respite, alternative therapies, support groups, etc.

#### **Centralized Oversight**

20. Authorize an Orange County children's coordinating committee with a lead agency and required member agencies to include parents of children with Behavioral Health conditions.

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