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APPLIED BEHAVIOR ANALYSIS SERVICES IN KANSAS

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MARCH 2019

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Executive Summary

As the prevalence of autism spectrum disorder (ASD) has increased — up from 1 in 150 children in 2000 to 1 in 59 in 2014 — so has a national push for coverage of ASD services, including applied behavior analysis (ABA). ABA is an intensive treatment that utilizes principles of behavior and learning to modify socially significant behaviors (e.g., using positive reinforcement to encourage a desired behavior). It is typically provided in one-on-one sessions, using treatment programs ranging from 10 to 40 hours per week.

ABA is provided via a tiered service-delivery model, with behavior analysts creating and monitoring treatment plans carried out by technicians. While there are limitations with the current evidence assessing ABA, to date it appears to be the most effective treatment mechanism for ASD. In particular, ABA benefits preschool age children, and early intervention might reduce long-term costs associated with ASD.

The costs of providing ABA are high ($40,000 to $60,000 per year), however, and across the U.S. states struggle to provide ABA to individuals who need it. The cost of providing ABA, few ABA providers and long waitlists all have been cited as reasons for the lack of access. The same issues appear to be present in Kansas, even in the wake of legislative and administrative changes intended to improve coverage for ABA.

Key Findings

- In 2017, 5,405 individuals age 0-21 in KanCare had an ASD diagnosis, and 153 received ABA. While not all individuals with an ASD diagnosis likely required ABA due to medical necessity, the number receiving ABA remains low.
- Most respondents to the ABA provider survey indicated that they have a waitlist, with average wait times close to two years (22.3 months) in KanCare and over a year and a half (19.4 months) for private insurance.
- Respondents to the ABA provider survey who accept KanCare and/or private insurance indicated that reimbursement levels and a lack of qualified staff were the most prominent barriers to providing ABA services.
- Respondents to the ABA provider survey indicated that waitlists and distance to providers were the most significant barriers families with KanCare face, while lack of coverage for ABA services and financial burden were the most significant barriers for families with private insurance.

Legislative and Administrative Changes

Two major changes have occurred in Kansas in the last five years to increase coverage for ABA. In 2014, the Legislature passed a mandate requiring large group and some individual and small group health plans to cover ASD services for beneficiaries younger than 12 years of age, including ABA when medically necessary. The mandate does not apply to insurance offered by employers who "self-insure," or essentially any individual and small group plans. In 2017, the Kansas Department of Health and Environment (KDHE) added ASD services to the Early and Periodic Screening, Diagnostic and Treatment (EPSDT) section of the state plan for KanCare, the comprehensive managed care program that combines Medicaid and the Children's Health Insurance Program (CHIP). ASD services added to the KanCare state plan included consultative clinical and therapeutic services (CCTS) and intensive individual support (IIS) services.

ABA in KanCare

CCTS and IIS services previously had been available under the Autism Waiver, which is restricted to fewer than 100 children per year. Moving CCTS and IIS services to the KanCare state plan was intended to increase the number of individuals with ASD who could access these services. While CCTS and IIS services are referred to as "ASD services" by the state, these services are billed using Current Procedural Terminology (CPT) codes developed to report ABA services.

In 2017, 5,405 individuals age 0-21 had a diagnosis of ASD in the KanCare program, and 153 received CCTS and IIS services. While not all individuals with an ASD diagnosis likely required ABA due to medical necessity, the number of individuals receiving CCTS and IIS services in KanCare remains low relative to the number with an ASD diagnosis.

ABA Providers

One reason for the low number of individuals in KanCare receiving CCTS and IIS services (i.e., ABA) may be due to few ABA providers across the state. In December 2018, there were only 174 licensed behavior analysts (LBAs) in Kansas to serve individuals needing ABA with private insurance and KanCare, in addition to those who self-pay. In addition to LBAs, KanCare allows providers who meet state requirements (often referred to as "autism specialists") to offer CCTS services. Data are not available on the exact number of potential autism specialists in the state.

The number of CCTS providers providing services through the KanCare program is known, however. As of December 2018, there were 111 providers that include LBAs and autism specialists. Due to the intensity of ABA services, any increase in the number of individuals accessing services will require an increase in the ABA workforce.

Barriers to Providing and Receiving ABA

Information collected from a survey of consultant-level ABA providers (i.e., LBAs and autism specialists) in the state offered additional insight to potential barriers to providing ABA in Kansas. The survey was disseminated through three organizations with overlapping membership, and some providers who received the survey might not currently offer services or might offer services in settings not covered by insurance (e.g., schools). The approximate number of potential respondents ranged from 174 (the current number of LBAs in the state) to 250 (the largest membership of the three organizations who distributed the survey). The number of survey respondents retained for analysis was 34 ABA providers, providing a response rate ranging from 13.6 percent to 19.5 percent.

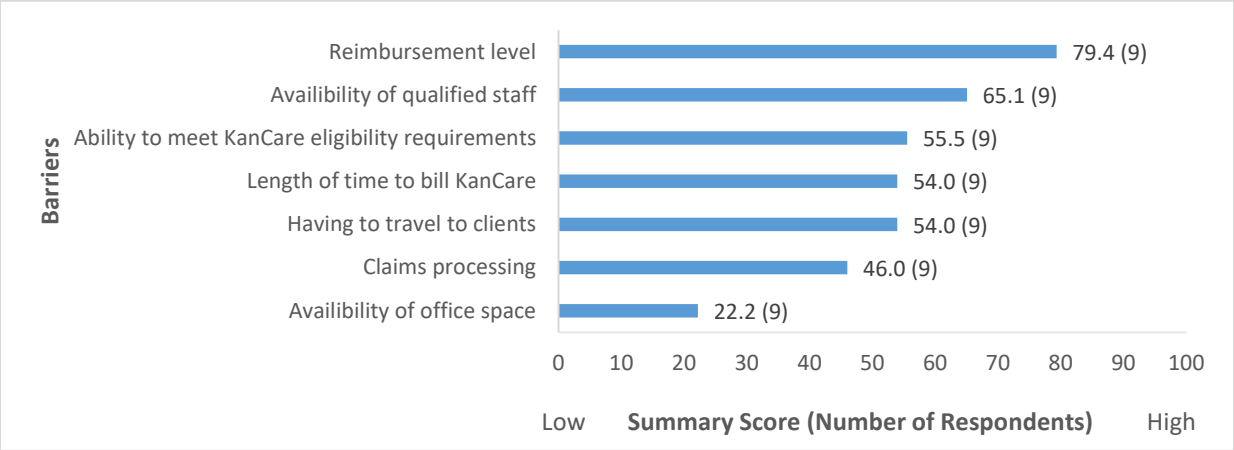
When asked which forms of payment they accept, survey respondents said they were most likely to accept private insurance (61.8 percent, 21 out of 34), and least likely to accept KanCare (35.3 percent, 12 out of 34). Respondents who did not accept KanCare noted the reimbursement level as the leading reason.

Access concerns appear to be present for both KanCare and private insurance, however. Of the 11 survey respondents who did accept KanCare, all indicated that they have a waitlist for children with ASD enrolled in KanCare to begin receiving services. Eleven out of 17 survey respondents who accept private insurance also indicated that they have a waitlist for individuals with ASD with private insurance. Once on the waitlist, the average time to begin receiving services for individuals enrolled in KanCare was close to two years (22.3 months), and the average wait time for individuals with private insurance was over a year and a half (19.4 months).

Among the most prominent barriers for survey respondents to offer ABA services in KanCare and private insurance were reimbursement levels and the availability of qualified staff (*Figure ES-1*, page vi). The availability of qualified staff in KanCare might be, in part, related to concerns about current training requirements for CCTS and IIS providers. While half of respondents (54.5 percent, 6 out of 11) who accept KanCare indicated that current training

requirements for CCTS and IIS providers are appropriate, one-third of respondents (36.4 percent, 4 out of 11) indicated that CCTS requirements were too lax and IIS requirements were too stringent. This might stem from differences in state requirements for CCTS and IIS providers relative to requirements established by a national professional organization.

Figure ES-1. **Barriers to Providing ABA Services to Individuals Enrolled in KanCare**

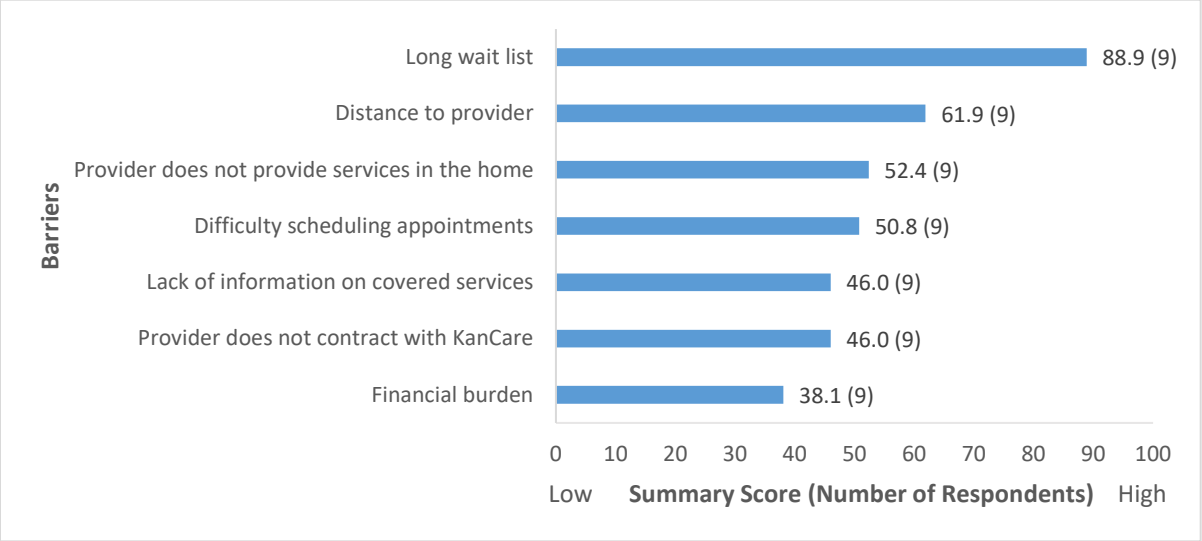


Note: Number of respondents = 9. A summary score was calculated by multiplying the rank by the number of responses and the range of summary score was rescaled to 0-100; higher summary scores indicate more significant barriers. The same barriers were also ranked by providers who offer services to individuals with private insurance, with similar results. The top two barriers for providers who accept private insurance were also reimbursement level and availability of qualified staff.

Source: Kansas Health Institute analysis of data from the Kansas ABA Provider Survey, 2018.

Survey respondents indicated that waitlists and distance to providers were the most significant barriers that families enrolled in KanCare face when trying to obtain services, reflecting the shortage of providers in the state (*Figure ES-2*, page vii). However, private insurance providers indicated that a lack of coverage for ABA services and the financial burden were the most significant barriers that families with private insurance face *(Figure ES-3*, page vii). Even though recent legislation mandated coverage of ABA services when medically necessary, it does not apply to all private insurance. The mandate excludes plans offered by employers who self-insure and individual and small group plans. Additionally, some families might not have updated and comprehensive information on coverage and eligibility requirements, and they might face high out-of-pocket expenses (e.g., deductibles and co-payments). This issue deserves additional analysis to better understand how well the legislative mandate has achieved its intended objective.

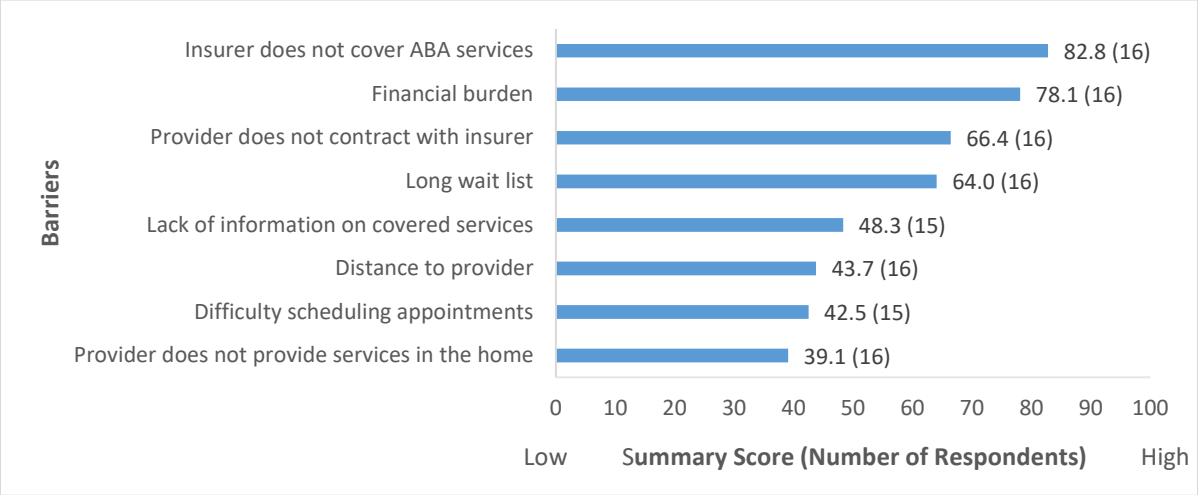
Figure ES-2: **Barriers to Receiving ABA Services for Individuals Enrolled in KanCare**



Note: Number of respondents = 9. A summary score was calculated by multiplying the rank by the number of responses and the range of summary score was rescaled to 0-100; higher summary scores indicate more significant barriers.

Source: Kansas Health Institute analysis of data from the Kansas ABA Provider Survey, 2018.

Figure ES-3. **Barriers to Receiving ABA Services for Individuals with Private Insurance**



Note: Number of respondents = 16. Respondents were not required to rank every barrier, so the number of respondents who ranked the barrier — provided in parentheses following the summary score — may be fewer than 16. A summary score was calculated by multiplying the rank by the number of responses and the range of summary score was rescaled to 0-100; higher summary scores indicate more significant barriers.

Source: Kansas Health Institute analysis of data from the Kansas ABA Provider Survey, 2018.

Limitations

Limitations should be noted for these findings. First, ASD diagnosis and medical necessity criteria determine the need for CCTS and IIS services, and this analysis lacked information on medical necessity. Second, complete information on the number of providers in Kansas is not

available. Third, survey findings might not generalize to all ABA providers due to the small number of respondents. They do, however, identify issues for further exploration.

Conclusions

The state expanded training options for autism specialists in 2017, which might increase the number of providers in KanCare in future years. However, encouraging more individuals to complete trainings might be a challenge due to a disruption of state funding for provider trainings, low reimbursement rates for KanCare and private insurance and a lack of coverage by some private insurance plans.

While increasing reimbursement rates would increase health care expenditures, potential offsets could be seen through savings in other service areas (e.g., living expenses, education and supported work). The state has made changes to increase the number of individuals eligible for ASD services in Kansas; however, additional changes might be needed if policymakers would like to further increase the number of individuals actually accessing ABA.

Introduction

As the prevalence of autism spectrum disorder (ASD) has increased, so has a national push for coverage of ASD services, including applied behavior analysis (ABA). Based on principles of learning and behavior, ABA modifies socially significant behaviors (e.g., communication skills, social skills, daily living skills) through intervention. ABA is comprised of multiple types of interventions, which are selected based on the needs of the individual receiving services. Among the current treatments for ASD, ABA is commonly regarded as one of the most effective and evidence-based.[1,2,3]

Changes in federal and state policy have impacted coverage of ASD services. At the federal level, guidance from federal agencies and outcomes of federal court cases have impacted coverage of ASD services nationwide. In 2014, the Kansas Legislature passed a law mandating that large group health plans and grandfathered individual and small group health plans cover ASD services for beneficiaries under age 12, including ABA when medically necessary.

Then, in 2017, Kansas incorporated ASD services into the Early and Periodic Screening, Diagnostic and Treatment (EPSDT) section of the state plan for KanCare, the comprehensive managed care program that combines Medicaid and the Children's Health Insurance Program (CHIP). The ASD services added to the KanCare state plan utilize Current Procedural Terminology (CPT) codes developed by the American Medical Association (AMA) to report ABA services. These services had previously only been covered under the Autism Waiver, and incorporating ASD services into the state plan was intended to make ASD services available to more children in KanCare. The addition of ASD services to the EPSDT benefit also conformed with federal guidance released in 2014.[4]

While these changes were intended to improve access to care, advocates argue that children in Kansas are still not receiving needed services due to a shortage of providers and insufficient reimbursement rates, which range from $25 to $70 per hour depending on the service. To date, there has not been a systematic assessment of this issue in Kansas. To shed light on a potential access to care issue for children with ASD and to inform future policy discussions around ABA, this project summarized policy changes related to ASD services and ABA and assessed the availability of ASD services in Kansas. Specifically, this report addressed five research questions:

1. What does the literature say about the effectiveness of ABA?

2. How do the federal government and Kansas regulate ABA?
3. How do public and private insurers in Kansas cover ABA?
4. What is the supply and demand of ABA services in the KanCare program?
5. What barriers do providers face when trying to offer ABA services?

Background

Autism Spectrum Disorder (ASD)

First described by Leo Kanner in 1943, autism spectrum disorder (ASD) is a developmental disorder noted for its impacts on social interaction, communication and behavior. Previous versions of the Diagnostic and Statistical Manual of Mental Disorders (DSM) separated Autistic Disorder, Asperger's Disorder and Pervasive Developmental Disorder Not Otherwise Specified into different diagnoses. The most recent version of the DSM combined these diagnoses into one — ASD — in 2013. The diagnoses were combined due to a lack of distinction in causes of the disorders and similarity of treatment mechanisms.[5] In the latest version, the DSM also added a severity assessment scale for ASD based on the level of support needed for daily function.

According to the DSM, behaviors and skills commonly impacted by ASD include, but are not limited to, difficulty developing relationships, abnormal social approach, reduced sharing of interests, abnormal body language, repetitive behaviors, hyper-reactivity to sensory input, and fixed interests. ASD is heterogeneous, with symptoms and symptom severity varying by individual.[6] There is no singular cause of ASD, although risk factors have been identified. They include, but are not limited to, having a sibling who has ASD, having older parents and having other genetic conditions, such as Down syndrome.[7,8]

It is estimated that 1 in 59 children have ASD in the United States, up from 1 in 150 in 2000.[9] Applying this prevalence rate to Kansas, approximately 12,743 individuals age 0-18 could be diagnosed with ASD. ASD occurs across racial and socioeconomic backgrounds and often co-occurs with other conditions.[10] Common co-occurring conditions include other disabilities and medical conditions, with some of the most common being intellectual disabilities, attention-deficit/hyperactivity disorder, epilepsy and anxiety.[11]

Symptoms of ASD present early in life. While diagnosis can occur as early as age 2, the average age of diagnosis is age 4.[12] Because ASD can be diagnosed early in life, screening for ASD is recommended by the American Academy of Pediatrics at regular intervals, including at age 18 and 24 months.[13] Screens are typically conducted by a physician, and screening results indicate whether a child should receive a comprehensive evaluation to test for ASD. An evaluation compiles information on development, behaviors and cognition. Depending on the results of the evaluation, a child may then receive an ASD diagnosis.

Lifetime Cost of ASD

ASD implicates costs and spending across a variety of sectors and across the lifespan. Costs associated with ASD include medical service costs (e.g., inpatient visits, emergency care, physician office visits), nonmedical service costs (e.g., special education, respite care, travel to and from appointments), and indirect costs (e.g., reductions in caregiver productivity).[14] The total lifetime costs associated with ASD have been estimated from $1.4 million to $3.2 million.[15,16] Costs associated with ASD vary based on additional disabilities or conditions, with one study estimating that lifetime costs associated with ASD for an individual with an intellectual disability were $2.4 million and for those without an intellectual disability were $1.4 million.[17] In general, costs associated with ASD are high and remain high throughout the lifespan, although treatment may help mitigate some costs.[18]

Treatment of ASD

There are multiple treatment modalities for ASD, with varying levels of evidence on effectiveness. Treatment options for ASD include medication, behavioral and developmental interventions, and psychological therapies.[19] Medication, such as risperidone and aripiprazole, have been found to mitigate some symptoms associated with ASD, including aggression, self-injury and repetitive behaviors.[20] Behavioral interventions, most of which utilize principles of ABA, also have been used to treat ASD. To date, behavioral interventions are one of the most studied types of treatment for ASD, but other treatments are in development and receiving increased attention, including technology-based treatments and medical interventions.[21,22]

While many ASD services are covered by health insurance or families themselves, schools also provide services for individuals with ASD. The Individuals with Disabilities Education Act (IDEA), passed in 1990 and reauthorized in 2004, ensures that public schools provide appropriate education services to children and youth with disabilities, including ASD; services for each

individual child are laid out in an individual education plan (IEP). In the 2015-2016 school year, 435 children age 3 to 5 received special education services related to an ASD diagnosis in Kansas, and 3,882 children and youth age 6 to 21 received special education services for ASD.[23]

Applied Behavior Analysis (ABA)

Behavioral interventions are among the most studied treatment modalities for ASD and have been utilized for more than 50 years.[24,25] Based on the science of behavior, ABA strategies have emerged as both a treatment and a field of study. ABA interventions apply principles of behavior and learning to modify behavior in a way that benefits the individual (e.g., using positive reinforcement to encourage a desired behavior). ABA may focus on encouraging new behaviors, discouraging/encouraging existing behaviors and modifying responses to environmental triggers. Common treatment models for ASD, such as the Lovaas Method and the Early Start Denver Model, are based on ABA principles. ABA is not exclusive to ASD and has been used to treat individuals with other conditions and diagnoses.

Because ASD is heterogenous, ABA treatment plans are individualized. Some treatment plans may utilize discrete trial training, which teaches skills through short and repetitive instructions, while others may focus on pivotal response training, an approach that targets behavior in more naturalistic settings.[26] To date, ABA has typically been targeted at younger individuals, with a focus on early intervention, and is provided in a variety of settings. Some providers may offer services in an individual's home or in a community setting, while others are provided within a clinical setting (e.g., provider's office, hospital). ABA is typically offered via one-on-one therapy sessions, although group sessions also may be utilized.

ABA is intensive, due to both its one-on-one nature and high number of treatment hours. There are two forms of ABA treatment: focused ABA and comprehensive ABA. Focused ABA treatment targets a narrower scope of behaviors and is conducted from 10 to 25 hours per week, depending on the individual. Comprehensive ABA treatment targets a wider range of behaviors across domains (e.g., daily living skills and communication skills), and treatment plans range from 30 to 40 hours per week.[27]

ABA providers

ABA is provided via a tiered service-delivery model.[28] At the top of the delivery model are behavior analysts, who conduct assessments and develop treatment plans. The treatment plan

then can be carried out by the behavior analyst, assistant behavior analysts or technicians overseen by the behavior analyst.

Behavior analysts include Board Certified Behavior Analysts (BCBA) and Board Certified Behavior Analysts – Doctoral (BCBA-D) who are certified by the Behavior Analyst Certification Board (BACB), the national certification board for behavior analysts. Both types of providers must complete relevant coursework, fulfill 750-1,500 hours of supervised experience, and pass an exam in order to be certified.[29] BCBAs are master's level providers, while BCBA-Ds are doctoral level providers.

Assistant behavior analysts, or Board Certified Assistant Behavior Analysts (BCaBAs), are bachelor's level providers. Assistant behavior analysts must complete similar requirements to behavior analysts but must be supervised in practice by a behavior analyst.

Technician-level providers, or Registered Behavior Technicians (RBT), are providers who have completed a high school diploma and met the additional training requirements specified by the BACB. These training requirements include a 40-hour training program and completion of an exam, which typically are completed after a technician has been hired by an ABA practice. While BCBAs and BCBA-Ds choose behavior analysis as a field of study during their education, technicians are typically trained on-the-job. In the tiered-delivery model, technicians carry out the treatment plan with oversight provided by the behavior analyst.

While the BACB certifies ABA providers across the United States and worldwide, states also can certify and license behavior analysts. In Kansas, once a provider is certified as a BCBA or BCBA-D they may become licensed behavior analysts (LBA) with the Kansas Behavioral Sciences Regulatory Board (BSRB) to provide ABA services.

If a provider is not licensed with the BSRB, they may complete state requirements in order to provide ABA services for KanCare as "autism specialists." Autism specialists can bill services for KanCare at the same level as behavior analysts (BCBAs and BCBA-Ds). Providers who complete a different set of state requirements may be certified as Intensive Individual Support (IIS) providers, which are similar to RBTs. Provider requirements for KanCare are described in more detail on page 21.

Caseload for ABA Providers

The BACB also recommends caseload sizes for behavior analysts.[30] For a behavior analyst providing services without an assistant behavior analyst, the BACB recommends a caseload of six to 15 individuals, with the number dependent upon whether the analyst is providing focused or comprehensive treatment. With the support of an assistant behavior analyst, the BACB recommends a caseload of 12 to 24 individuals, again dependent on whether an individual is providing focused or comprehensive treatment. The recommended caseloads are small relative to other disciplines, which may be attributed to the intensity of ABA treatment.

Billing Codes for ABA

Billing codes that allow providers to report ABA services have changed in recent years. In 2014, the American Medical Association (AMA) implemented a set of Category III Current Procedural Terminology (CPT) codes to report ABA services.[31] Category III codes are temporary codes used to report new or developing services. If services reported via Category III codes later meet certain criteria (e.g., clinical efficacy in literature, service is performed with consistent clinical use), permanent Category I codes may be developed. Beginning January 1, 2019, the AMA implemented a new set of Category I CPT codes to report ABA services.[32] When these codes are adopted will likely vary by payer; KanCare adopted the new codes on January 1, 2019.[33]

Cost of ABA

Because of the higher number of hours of direct therapy and consultative services associated with delivering an ABA program, it is extremely costly. Average annual costs of behavioral intervention treatments can vary from $40,000 to $60,000 per year.[34] Some studies have approximated cost savings associated with early behavioral interventions. One study estimated that three years of ABA could save education systems $208,500 per child across 18 years (age 4-22), through reductions in special education costs. [35] Another study examining additional costs associated with ASD (e.g., living expenses, education, supported work) estimated more than $1 million in savings per individual from age 3-65.[36]

Access to ABA

While ABA is one of the most studied treatment options for ASD, advocates have expressed concern that it is not widely available to all who might benefit, citing long waits for individuals to begin receiving services.[37,38] This concern has been raised in Kansas and has been attributed to a lack of providers, insufficient reimbursement rates, and administrative issues.[39,40,41,42] This

issue does not appear to be specific to Kansas, however, with other states experiencing long waits and provider shortages.[43,44,45,46] These access concerns have been raised in the wake of increased coverage of ASD services by insurance providers over the last 10 years. While coverage for ABA has increased, access to services may be lagging.

Methods

The following strategies were used to address the research questions of this report:

- Questions 1-3 (the effectiveness of ABA, federal and Kansas regulation of ABA, and insurance coverage of ABA services in Kansas) were addressed via literature and document reviews.
- Question 4 (supply and demand of ABA services in KanCare) was addressed through analysis of KanCare claims data.
- Question 5 (potential barriers to providing ABA services) was addressed via an online survey of consultant-level ABA providers (BCBAs, BCBA-Ds and autism specialists as defined by the state agencies).

Research question #1: Literature review on the effectiveness of ABA

The first question, "what does the literature say about the effectiveness of ABA," was addressed using a limited scope literature review. To begin, literature on the effectiveness of ABA was solicited from the Easterseals Capper Foundation and Autism Speaks. Then, peer-reviewed literature was examined. To search for peer-reviewed literature, the following databases and search terms were used:

Databases: Pubmed.gov, GoogleScholar

Search terms:

- "Autism and ABA",
- "Autism and applied behavior analysis",
- "Autism and behavioral intervention",
- "Autism and behavioral treatment",

- “ASD and ABA”,
- “ASD and applied behavior analysis”,
- “ASD and behavioral intervention”, and
- “ASD and behavioral treatment”.

Citations of the literature found using the above databases and search terms also were examined.

Research questions #2 and #3: Document review on regulation and coverage of ABA services

For the second and third questions, “how do the federal government and Kansas regulate ABA” and “how do public and private insurers in Kansas cover ABA,” relevant documents were reviewed. To understand how the federal government and Kansas regulate ABA, documents that discuss the following were examined:

- Coverage requirements for ABA services;
- Education/certification requirements for ABA providers;
- Screening requirements for ASD;
- Beneficiary qualification requirements for ABA services; and
- Public and private insurance coverage of ABA services in Kansas.

The search focus was on federal and Kansas statutes, in addition to searching for documentation from the following organizations:

- Centers for Medicare and Medicaid Services (CMS);
- Centers for Disease Control and Prevention (CDC);
- National Institute of Mental Health (NIMH);
- Health and Human Services (HHS) Interagency Autism Coordinating Committee (IACC);
- Kansas Department for Aging and Disability Services (KDADS);

- Kansas Department of Health and Environment (KDHE);
- Kansas Insurance Department;
- National Conference of State Legislatures; and
- National ASD advocacy groups.

Research question #4: Supply and demand of ABA services in KanCare

To answer the fourth question, "what is the supply and demand of ABA services in KanCare," multiple data analyses were conducted, subject to data availability. The data analysis for the demand of ASD services utilized KanCare encounter data through the Data Analytic Interface (DAI), the only comprehensive data available for the project. The two most recent years of KanCare data (2016 and 2017) were used to identify KanCare enrollees age 0-21 with an ASD diagnosis and the number of individuals who received ASD services. ASD diagnosis includes principal or secondary diagnosis within the category F84 Pervasive Developmental Disorder (excluding F84.2 Rett's syndrome) according to the ICD-10-CM.

Utilization of ASD services in KanCare was identified through billing codes (Current Procedural Terminology, or CPT, codes) in encounter data. The selected KanCare billing codes are CPT codes approved by the American Medical Association (AMA) for ABA services.[47] These procedures include consultant-level and technician-level services (*Figure 1*). Consultant-level services are provided by BCBAs, BCBA-Ds or autism specialists as defined by the state agencies. Technician-level services are provided by IIS providers, which can include individuals certified as RBTs if they meet other state requirements. Health care utilization and expenditures for these ASD services also were examined.

Figure 1. **ASD Services Billing Codes: KanCare State Plan and Autism Waiver**

Billing Code	Service	Provider	Minutes per Unit	Payment Per Unit**
H2015*	Consultative Clinical Therapeutic Services	CCTS	15	$17.50
H2019*	Intensive Individual Support	IIS	15	$6.25
0359T	Behavior Identification Assessment	CCTS	90	$70.00
0360T	Observational Behavioral Follow-up Assessment	IIS	30	$35.00

Figure 1 (continued). **ASD Services Billing Codes: KanCare State Plan and Autism Waiver**

Billing Code	Service	Provider	Minutes per Unit	Payment Per Unit**
0361T	Observational Behavioral Follow-up Assessment (Additional time)	IIS	30	$35.00
0364T	Adaptive Behavior Treatment by Protocol	IIS	30	$12.50
0365T	Adaptive Behavior Treatment by Protocol (Additional time)	IIS	30	$12.50
0368T	Adaptive Behavior Treatment with Protocol Modification	CCTS	30	$35.00
0369T	Adaptive Behavior Treatment with Protocol Modification (Additional time)	CCTS	30	$35.00
0370T	Family Adaptive Behavior Treatment Guidance	CCTS	Untimed	$35.00

* Denotes codes previously used under the Autism Waiver, which were end-dated March 31, 2017.

** KDHE establishes the fee schedule for these billing codes. KanCare managed care organizations must pay at least the fee schedule rate to providers in their networks.

Source: Adapted from the Kansas Department of Health and Environment, 2017, and the Association for Behavior Analysis International, 2018.

For the supply of ABA providers, information was compiled from the BACB, the BSRB, the Kansas Center for Autism Research and Training (K-CART) and the Kansas Department of Health and Environment (KDHE) as there is no centralized and integrated database for these providers.

Research question #5: Barriers to Providing ABA Services

An online survey was conducted to assess potential barriers for providers offering ABA services. The survey contained 30 questions and included skip logic to allow respondents to only provide information for relevant areas (e.g., only providers accepting KanCare answered questions about KanCare). Three main sections were included in the survey: description of provider, experience with KanCare and experience with private insurance.

The survey was targeted at consultant-level providers, including BCBAs, BCBA-Ds and autism specialists. A professional organization (the Kansas Association for Behavior Analysis, or KansABA), a certification board (BACB) and an ASD training program (K-CART) helped administer the survey via emails to their membership lists. Providers emailed through these channels likely overlapped, and the email inviting providers to complete the survey requested they complete it only once.

Data were collected through Qualtrics, an online survey platform. The survey was anonymous, and no identifying information was requested of the respondents. The analysis included descriptive statistics, such as counts and percentages of each response for each question. For question items ranked by respondents, a summary score was calculated by multiplying the rank by the number of responses and rescaled from 0-100; higher summary scores indicate more significant barriers. Textual responses were reviewed and summarized to supplement the quantitative analysis described above.

Effectiveness of ABA

Because ABA has been used to treat ASD for more than 50 years, it is one of the most studied treatment modalities for ASD. Multiple literature reviews compiling peer-reviewed studies testing ABA interventions indicate that it is effective in increasing IQ scores, social skills and adaptive behavior, including daily living skills and language skills, relative to individuals not receiving any interventions or other ASD treatments.[48,49,50,51] Other reviews, including those done by government entities, also have found ABA to be one of the most effective treatment modalities available for ASD, although many of these reports were completed more than five years ago.[52,53,54,55] Improvements attributed to ABA treatments in these reviews include improvements in cognition and communication.

Most studies examining the effectiveness of ABA treatment focus on children younger than age 7, and especially on preschool aged children age 3-4.[56] Some studies also have found that ABA benefits older individuals, although fewer studies examining older age groups are available.[57]

Studies supporting specific levels of intensity of ABA — while increasing — are still relatively few. Those that are available, however, indicate that higher doses (e.g., increased hours) of ABA are associated with better outcomes, and many of the studies testing ABA interventions use programs ranging from 20 to 40 hours per week.[58,59] A national technical expert panel (TEP) tasked with developing guidelines for nonmedical treatments of ASD recommended that children with ASD have access to 25 hours of comprehensive interventions, including ABA, per week. While the TEP expressed support for comprehensive interventions of 25 hours per week, they also acknowledged that few studies had explored necessary intervention dose or duration. In response, they recommended that additional research was needed to better understand the number of hours and length of time required for interventions to be effective.[60]

Many studies indicating support for ABA treatments also highlight limitations with the current evidence. Limitations include a lack of randomized controlled trials, small sample sizes, varying outcome measures and frequent use of within-subjects analysis.[61,62] Additional research is needed to better understand dose amounts of ABA treatment and the impact of ABA treatment on different age groups.

Federal Oversight of ABA

The federal government has influenced the coverage, regulation and research of ASD services nationwide, including ABA. This influence is evident through legislation, court cases, regulation by Department of Health and Human Services (HHS) agencies, and activities undertaken by other federal agencies. An overview of federal activities that have impacted coverage of ASD services as well as a timeline of federal and state changes is shown in *Figure 2*, page 20.

Legislation

Multiple pieces of federal legislation have impacted the coverage of, and research related to, ASD services. Most have occurred within the last 15 years.

Social Security Act: The U.S. Congress passed amendments to the Social Security Act in 1967, which included the addition of the EPSDT benefit for individuals eligible for Medicaid. The EPSDT benefit was added via Section 1905(r) and is available to eligible children under age 21.[63] Under EPSDT, states are required to provide medically necessary services even if they are not services covered under the Medicaid state plan. The EPSDT benefit often includes screening services, vision services, dental services, hearing services, diagnostic services, developmental and behavioral screening, and treatment. In a 2014 informational bulletin (described further on page 15), the Center for Medicaid and CHIP Services indicated that one option for states to cover treatment for ASD services under Medicaid is through the EPSDT benefit.[64]

Children's Health Act of 2000: The Children's Health Act of 2000 coordinated and increased federal efforts related to ASD.[65] In particular, it established the Interagency Autism Coordinating Committee (IACC), a department within HHS tasked with coordinating efforts between the National Institutes for Health (NIH) and the Centers for Disease Control and Prevention (CDC) related to ASD. The Children's Health Act of 2000 also requested that the NIH increase research projects related to ASD and establish centers of excellence for ASD research.

Combating Autism Act of 2006: The Combatting Autism Act of 2006 reauthorized the IACC, requesting that it also begin making recommendations to the Secretary of HHS related to federal activities focused on ASD.[66] It also promoted the development and use of screening tools for ASD and research evaluating evidence-based practices for treatment of ASD.

Patient Protection and Affordable Care Act of 2010: The Patient Protection and Affordable Care Act (ACA) passed by the U.S. Congress in 2010 established essential health benefit (EHB) categories.[67] All non-grandfathered individual and small group health plans, including health plans sold on the marketplace, must cover EHBs. Prior to the enactment of the ACA, the Senate Finance Committee amended the EHB category of "mental health and substance use disorder services" to "mental health and substance use disorder services, including behavioral health treatment." This amendment was intended to cover behavioral health services associated with the treatment of ASD as EHBs.[68]

Subsequent regulations allowed states to define EHBs via state-specific EHB benchmark plans, and only behavioral health treatments mandated by a state as of December 31, 2011, could be included as an EHB.[69] Costs associated with additional benefits mandated after 2011 would have to be defrayed by the state, unless the benefits were added in order to comply with federal law, such as provisions in the Mental Health Parity and Addiction Equity Act. Consequently, coverage for ABA in marketplace plans is inconsistent between states, even in those that have mandated coverage.

Combating Autism Reauthorization Act of 2011: The Combatting Autism Reauthorization Act of 2011 reauthorized funding for activities created under the Combating Autism Act of 2006, including the IACC and funding for autism education, early detection and intervention.[70]

National Defense Authorization Act for Fiscal Year 2013: The National Defense Authorization Act for Fiscal Year 2013 required the Secretary of Defense to implement a pilot program (the "ABA Pilot") for TRICARE that would provide coverage of treatment for ASD, including ABA. TRICARE — the health insurance provided by the Department of Defense to military personnel, retirees and their dependents — had conducted previous pilot programs covering ABA services for various members, and in 2014 consolidated all pilots into the Comprehensive Autism Care Demonstration.[71] The demonstration began July 25, 2014 and is scheduled to continue through December 31, 2023. The demonstration covers ABA services for any TRICARE eligible individuals with ASD, with a goal to study the "quality, efficiency, convenience and cost effectiveness of those autism-related services."[72] The Comprehensive

Autism Care Demonstration was created amid a lawsuit (Berge, et al. v. United States of America, et al., described below) that ultimately required TRICARE to cover ABA services for all eligible members.

Autism Collaboration, Accountability, Research, Education, and Support Act of 2014 (Autism CARES Act of 2014): Similar to the Combatting Autism Reauthorization Act of 2011, the Autism CARES Act of 2014 reauthorized funding for the IACC and efforts related to autism education, early detection and intervention.[73] It also required the Secretary of HHS to designate an official within HHS to oversee federal activities related to ASD. The duties of the official include implementing ASD activities while considering the strategic plan for ASD research developed by the IACC and ensuring that ASD efforts across federal agencies are not duplicative.

Court Cases

Outcomes of court cases also increased the focus on covering ASD services and ABA. While not exhaustive, the three cases described below are examples of how lawsuits impacted coverage of ABA services for three insurers: Medicaid, TRICARE and Blue Cross Blue Shield (BCBS) of Michigan.

Berge, et al. v. United States of America, et al. (Case No. 10-00373): In 2010, Kenneth and Dawn Berge filed a class action lawsuit against the United State of America, TRICARE and the Department of Defense (DOD) for not covering ABA services under the basic TRICARE program. In 2013, the court ruled in favor of the Berges, thereby requiring that ABA services be covered for eligible individuals covered under TRICARE.

Potter, et al. v. Blue Cross Blue Shield of Michigan (Case No. 10-14981): In 2010, Michael Potter and Brett Boyer filed a class action lawsuit against BCBS of Michigan for denying coverage of ABA services for children with ASD on the grounds that ABA was "experimental."[74,75] The court ruled against BCBS of Michigan in 2013, stating that the justification from BCBS of Michigan that ABA was experimental was arbitrary in the face of multiple groups, including the Surgeon General, CMS and others, indicating that ABA is an effective treatment. The lawsuit subsequently required BCBS of Michigan to cover ABA services for all eligible individuals.[76]

Garrido v. Dudek (Case No. 11-20684): In 2011, Iliana Garrido on behalf of her son K.G. — a five-year old Medicaid consumer with ASD — filed a lawsuit against Elizabeth Dudek, Interim

Secretary of the Florida Agency for Health Administration, for denying Medicaid coverage of ABA services.[77] Garrido alleged that denying ABA coverage prescribed by K.G.'s physician was a violation of the Medicaid EPSDT benefit, which requires medically necessary treatments be made available for conditions discovered during an EPSDT screening service. The Florida Agency for Health Administration argued that ABA was not medically necessary, as it as an experimental treatment. The court ultimately sided with Garrido, indicating that ABA was not experimental and, therefore, K.G. should receive ABA as originally prescribed by his physician. Subsequent rulings expanded ABA coverage to all qualifying Florida Medicaid beneficiaries via EPSDT, if medical necessity criteria were met. [78]

Regulation

Different federal agencies have engaged in research regarding ASD services and have coordinated efforts related to providing ASD services in public insurance programs.

Center for Medicaid and CHIP Services (CMCS): The CMCS released an informational bulletin on July 7, 2014, outlining options for states to implement required coverage of ASD services via Medicaid, including ABA treatments.[79] Options for states to cover ASD services under Medicaid included: section 1905(a) of the Social Security Act; section 1915(i) state plan Home and Community-Based Services (HCBS), section 1915(c) HCBS Waiver programs; and section 1115 research and demonstration programs. For children specifically, the addition of ASD services as part of the EPSDT benefit mentioned as an option under Section 1905(a) was discussed.

In the introduction, CMCS indicated that the impetus for the informational bulletin was due to "increased interest and activity with respect to services available to children with autism spectrum disorder." This "interest and activity" may have been referring in part to lawsuits, such as Garrido v. Dudek, that had recently concluded ABA services should be covered by Medicaid, in addition to a nationwide push by ASD advocacy organizations for health care coverage of ABA.

Interagency Autism Coordinating Committee (IACC): First established by the Children's Health Act of 2000, the IACC advises HHS on issues related to ASD, develops strategic plans related to ASD activities in the federal government, and coordinates ASD efforts across federal agencies. The IACC is comprised of 31 members, including both public and federal members. Public members include individuals with ASD, academic researchers, family members and

advocacy organizations. Federal members include representatives from the National Institute of Mental Health (NIMH), NIH, Food and Drug Administration (FDA), CMS, Health Resources and Services Administration (HRSA), CDC, and the Agency for Healthcare Research and Quality (AHRQ).

The 2016-2017 strategic plan for ASD research developed by the IACC highlighted the many behavioral interventions that have been shown to be efficacious at treating ASD.[80] It also called for an increased focus on developing medical interventions for ASD, as well as greater utilization and development of technology-based interventions.

Kansas Oversight of ABA

Various legislation and policy changes have impacted the coverage of ASD services in Kansas over the last 10 years. This has included the Kansas Legislature creating a mandate for ASD services in large group health plans and grandfathered individual and small group health plans, the addition of ASD services to the KanCare state plan, and the establishment of a statewide licensure mechanism for behavior analysts.

Legislation

Senate Bill 138 of 2007: Senate Bill (SB) 138 established the Kansas Autism Task Force to assess the needs of individuals with ASD in Kansas and to make recommendations related to those needs.[81] A preliminary report was to be submitted to the Legislature by November 15, 2007, with a final report due November 15, 2008. Recommendations included in the 2007 Autism Task Force preliminary report included expanding the Autism Waiver, developing a state insurance mandate for ASD services and providing financial incentives to students pursuing a career in applied behavior sciences. [82]

Senate Substitute for House Bill 2160 of 2010: Senate Substitute (SS) for House Bill (HB) 2160 required the Kansas State Employee Health Plan (SEHP) to pilot coverage of services for the diagnosis and treatment of ASD beginning January 1, 2011.[83] The initial coverage period specified by the legislation was January 1, 2011, to December 31, 2011, and by March 1, 2012, the SEHP commission was to submit a report to the Legislature documenting coverage over the pilot year. SS for HB 2160 specified that coverage for individuals under age 7 should not exceed $36,000 per year, while coverage for individuals age 7 to 19 should not exceed $27,000 per

year. Providers eligible to provide services at the time of the bill were autism specialists or IIS providers as specified by the Autism Waiver.

On May 30, 2012, KDHE recommended that the SEHP continue the Autism Pilot Program through 2013 in order to gather additional data.[84] In the first year of the pilot program, 126 children/youth received services at a total allowed amount of $214,656.[85] On June 13, 2013, the Kansas State Employees Health Care Commission approved a recommendation to incorporate the ASD benefit as a permanent part of the SEHP.[86]

House Bill 2744 of 2014: HB 2744 created two major changes related to coverage for diagnosis and treatment of ASD.[87] Section 1 of HB 2744 mandated that all large group health plans (large employers with at least 51 employees) cover diagnosis and treatment of ASD for covered individuals under age 12 beginning on January 1, 2015. Starting on January 1, 2016, all grandfathered individual and small group health plans (employers with 50 or fewer employees) also were required to cover diagnosis and treatment of ASD for covered individuals under age 12. The mandate did not implicate employers who "self-insure," or non-grandfathered individual and small group plans.

For all policies, coverage included ABA when prescribed by a qualifying provider. For individuals younger than age 5, coverage was not to exceed 1,300 hours per calendar year for four years. All other individuals under age 12 were eligible to receive up to 520 hours of services per calendar year. Prior approval was required to exceed either coverage cap. By requiring coverage of ASD services, approximately 750 children previously unable to receive services were expected to gain access to ABA.[88]

Sections 2-6 of HB 2744 also established the Applied Behavior Analysis Licensure Act. Prior to the establishment of the Act, only ABA providers certified through the Autism Waiver were eligible for reimbursement for ASD services (including ABA). Beginning July 1, 2016, providers licensed under the Act also could receive reimbursement for ABA services. Under the Act, providers are required to receive licensure through the Behavioral Science Regulatory Board (BSRB). The BSRB licenses two types of ABA providers: licensed assistant behavior analysts (LaBA) and licensed behavior analysts (LBA).

To become licensed as LBAs or LaBAs, providers must submit verification of certification with the BACB, complete background checks, show proof of education (i.e., transcripts) and pay $70 to the BSRB.[89] Licenses must be renewed every two years.

Not all providers are required to be LBAs or LaBAs in order to provide ABA services in Kansas. The Act created exceptions for certain providers, including individuals who provide services via IDEA, those completing a course of study and engaging in supervised clinical experience, individuals qualified to provide services in the Autism Waiver, occupational therapists and speech-language pathologists or audiologists.[90]

House Bill 2352 of 2015: House Bill 2352 modified definitions outlined in the autism mandate (HB 2744) as to which employers were required to cover services related to ASD diagnosis and treatment.[91] HB 2352 modified the definition of large employers, previously defined as having at least 51 employees, to instead mean those with at least 101 employees. The definition of small employers also was changed from 50 or fewer employees to instead mean those with 100 or fewer employees. This change meant that non-grandfathered health plans sponsored by employers with 51-100 employees were no longer subject to the autism mandate.

Public Coverage

In addition to legislation, public insurers in Kansas — namely KanCare — have modified coverage of ASD services over the last decade. Coverage for ASD services in Kansas began with a waiver program, before increasing to the full KanCare program.

Autism Waiver: The Kansas Medicaid program began covering ASD services in 2007 with the development of the Autism Waiver.[92] The Autism Waiver, part of the Home and Community-Based Services (HCBS) Waiver administered by the Kansas Department for Aging and Disability Services (KDADS), is a Section 1915(c) HCBS Waiver originally approved by CMS in 2007. The waiver provides families with access to services to help children with ASD remain in their home and community, instead of in an institution.

To be eligible for the waiver, children must be under age 6 and have a diagnosis of ASD, including autism, Asperger syndrome, or another pervasive development disorder not otherwise specified, and the diagnosis of ASD must be provided by a physician or PhD-level psychologist. Families interested in having their child become a waiver participant must submit an application to the state agency administering the waiver. Children who meet the application criteria are given a spot on the proposed recipient list (PRL), where they remain until a spot on the waiver is available or they exceed the age requirement for the waiver. If a spot on the waiver becomes available, the child then must complete a functional eligibility assessment (using the VINELAND II Adaptive Behavior Scales) to confirm waiver eligibility.

While the number of children covered under the waiver fluctuates, as of November 2018, 52 children were receiving Autism Waiver services, with 268 on the PRL.[93] The waiver serves approximately 82 children each year, and the PRL typically has 260 to 300 children on it.[94]

Waiver recipients can receive services up to three years, with the possibility of a one-year extension. Following completion of the Autism Waiver, children can transition to other available HCBS Waivers, including the Intellectual/Developmentally Disabled (I/DD) Waiver, Serious Emotional Disturbance (SED) Waiver, and Technology Assisted (TA) Waiver. In order to transition to a new waiver, children must meet the eligibility criteria for the appropriate waiver. The current Autism Waiver expires March 31st, 2022.

The original waiver covered five services, which included Consultative Clinical and Therapeutic Services (CCTS; also referred to as autism specialist services), Intensive Individual Support (IIS) services, respite services, parent support and training (peer support) and family adjustment counseling.[95] Two of the services supported the provision of ABA treatment: CCTS and IIS services. Autism Waiver recipients were eligible for 200 units of CCTS services (equivalent to 50 hours) per year, and 100 units of IIS services (equivalent to 25 hours) per week. Additional services above these caps required prior authorization.

Since its inception in 2007, services provided under the Autism Waiver have changed. The Autism Waiver was renewed in 2014 and then modified in 2017 to reflect changes in coverage of ASD services. In 2017, CCTS and IIS services were added to the KanCare state plan as part of the EPSDT benefit and removed from the Autism Waiver. This left three services on the Autism Waiver (respite care, family adjustment counseling, and parent support and training), which was maintained to continue providing services to children who might not meet the financial requirements to be eligible for KanCare.[96,97]

KanCare Coverage: Due to encouragement from CMS, KDHE submitted a state plan amendment (SPA) in January 2017 that added coverage for ASD services to the KanCare state plan.[98] The goal in transitioning these services to the state pan was to make them available to more children enrolled in KanCare outside of the Autism Waiver. The ASD services added to the KanCare state plan included CCTS and IIS, defined by the SPA as:

- *Consultative Clinical and Therapeutic Services (CCTS):* "Autism Spectrum Disorder (ASD) treatment services that involve working towards the remediation of maladaptive behavioral symptoms by teaching children more adaptive skills."

- *Intensive Individual Supports (IIS):* "Services provided to a beneficiary are designed to assist in acquiring, retaining, improving a generalization of the self-help, socialization, and adaptive skills necessary to reside and function successfully in home and community settings."

According to the SPA, physicians (or other licensed practitioners) must recommend CCTS and IIS services for a given individual, which then must receive prior authorization by the managed care organization (MCO) based on medical necessity. The SPA created "soft limits" of 50 hours per year for CCTS services, and 25 hours per week for IIS services, which are equivalent to the limits imposed under the Autism Waiver. Additional hours beyond these soft limits may be authorized due to medical necessity.

While CCTS and IIS services are referred to as "ASD services" and not ABA, providers billing for CCTS and IIS services use CPT codes developed by the AMA to report ABA services.[99]

Figure 2. **Timeline of Federal and State Changes Related to ASD/ABA Services, 2006-2018**

Year	Changes Related to ASD/ABA Services
2006	• U.S. Congress passes the Combating Autism Act of 2006
2007	• Kansas Legislature approves the HCBS Autism Waiver • Kansas Legislature passes SB 138 and creates the Autism Task Force
2008	• K-CART begins providing state-approved training through contract with KDADS (formerly the Kansas Department of Social and Rehabilitation Services)
2010	• Kansas Legislature requires the State Employee Health Plan (SEHP) to cover ASD services through a pilot program (SS for HB 2160) • U.S. Congress passes the Patient Protection and Affordable Care Act of 2010 establishing essential health benefits, including behavioral health benefits
2011	• U.S. Congress passes the Combating Autism Reauthorization Act of 2011
2013	• Kansas State Employee Health Care Commission recommends the ASD benefit be permanently incorporated into the SEHP • Berge, et al. v. United States of America, et al. requires TRICARE to cover ABA services for eligible members • Potter, et al. v. Blue Cross Blue Shield of Michigan requires Blue Cross Blue Shield of Michigan to cover ABA services for eligible members • National Defense Authorization Act for Fiscal Year 2013 requires the DOD to create a new TRICARE demonstration expanding access to ABA services to all eligible members

Figure 2 (continued). **Timeline of Federal and State Changes Related to ASD/ABA Services, 2006-2018**

Year	Changes Related to ASD/ABA Services

2014	• Kansas Legislature passes HB 2744, which:
	  ○ Created the Applied Behavior Analysis Licensure Act; and
	  ○ Required large group health plans (at least 51 employees) to cover ASD services beginning January 1, 2015, and grandfathered individual and small group health plans (1-50 employees) to begin covering ASD services January 1, 2016

	• CMCS clarifies coverage options for ASD services within Medicaid • U.S. Congress passes Autism CARES Act of 2014
2015	• Kansas Legislature passes HB 2352 and changes definition of large employers (specified in HB 2744) from at least 51 employees to at least 101 employees, and small employers from 50 or fewer employees to 100 or fewer employees
2017	• ASD services (CCTS and IIS) formerly under Autism Waiver added to KanCare via state plan amendment (SPA) • HCBS background check requirements changed • K-CART state-approved training curriculum contract with KDADS ends • KDADS issues guidance on changes to state-approved training requirements
2018	• HCBS Waiver rates increased by 4 percent, including Autism Waiver services (does not apply to ASD services moved to KanCare)

Note: Gray shading indicates Kansas change. No shading indicates federal change.
Source: Kansas Health Institute, 2019.

Provider Requirements: Under the original Autism Waiver, providers offering CCTS services were required to meet the following criteria: "Must have a master's degree, preferably in human services or education, or be a BCBA with documentation of 2,000 hours of supervised experience working with a child with ASD."[100] IIS providers were required to have a bachelor's degree (or 60 college credit hours) and 1,000 hours of experience with a child with ASD. Autism specialists and IIS providers also were required to complete any state-approved training requirements for the waiver and background checks.

In the KanCare state plan, requirements to provide CCTS and IIS services remain largely similar to those laid out in the original Autism Waiver. One major change implemented in 2017 exempts providers certified as BCBAs or BCBA-Ds from also having to complete state-approved training requirements.[101] Instead, these providers must only be licensed with the Kansas BSRB. Another change is for IIS providers, who now are only required to have completed a high school diploma. Finally, in January 2017, KDADS issued guidance on background check requirements for HCBS providers.[102] Although background checks always had been required, the new process required all HCBS providers to complete their background checks through KDADS. See *Figures 3* and *4* (page 23) for a comparison of provider requirements.

Prior to 2017, the only state-approved training program was provided by the Kansas Center for Autism Research and Training (K-CART), which trains both autism specialists and IIS providers. The training was funded through a contract with KDADS, which ended July 1, 2017.[103] This contract ended due to guidance from CMS that state funds for ASD services should be used for the provision of services and not for provider trainings. Following the conclusion of the contract, providers were responsible to cover any costs associated with necessary state-approved trainings.

KDADS has maintained responsibility for vetting the state-approved training curriculum for ASD services, even after the inclusion of ASD services into the KanCare state plan. On May 12, 2017, prior to the conclusion of its contract with K-CART, KDADS issued new guidance on what trainings would be approved by the state.[104] According to that guidance, providers with BCBAs or BCBA-Ds no longer were required to complete state-approved training. For providers without a BCBA or BCBA-D, the following trainings meet the state-approved training requirement for CCTS providers:

- K-CART autism specialist training;
- Forty-hour RBT training as specified by the BACB; and
- A separate training program submitted to and approved by the KDADS Autism Program manager.

Under the May 2017 guidance, the following trainings meet the state-approved training requirement for IIS providers:

- K-CART IIS training;
- Forty-hour RBT training as specified by the BACB; and
- A separate training program submitted to and approved by the KDADS Autism Program manager.

Once providers have completed all requirements — education, hours of experience, training and background check requirements — and are credentialed with KanCare, they must then become credentialed with each individual MCO. The length of time to be approved to provide ASD services varies by MCO.

In testimony to the Legislature, ABA providers have raised concerns with the KanCare training and experience requirements. One concern is that the hours of experience (1,000 hours) required to be an IIS provider is higher than what is required by the BACB to be certified as an RBT.[105] In contrast, ABA providers also have expressed concern with the training requirements to become an autism specialist (CCTS provider), stating that the training might not be sufficient relative to the training BCBA and BCBA-Ds must complete.[106] In general, some ABA providers in Kansas are concerned that state requirements do not align with national requirements specified by BACB.

Figure 3. **Consultant-Level Provider Requirements**

	Autism Waiver (2007)	**State Plan**	**BACB**	
Provider Title	Autism specialist	Autism specialist	BCBA	BCBA-D
Education	Master's	Master's	Master's	Doctorate
Training	Completion of state-approved training (K-CART)	Completion of state-approved training (described on page 22)	Completion of verified course sequence	
Hours of Experience	2,000 hours working with a child with ASD	2,000 hours working with a child with ASD	750-1,500 hours of supervised experience implementing an ABA program	

Note: KanCare providers may automatically qualify as "autism specialists" if they are licensed with the BSRB. Providers can only be licensed through the BSRB if they have proof of BACB certification.

Source: Adapted from the 2007 HCBS Autism Waiver Handbook, a 2017 memo from the Kansas Department for Aging and Disability Services and the Behavior Analyst Certification Board Practice Guidelines for ASD.

Figure 4. **Technician-Level Provider Requirements**

	Autism Waiver (2007)	**State Plan**	**BACB**
Provider Title	IIS	IIS	RBT
Education	Bachelor's (or 60 credit hours)	High school diploma (or equivalent)	High school diploma (or equivalent)
Training	Completion of state-approved training (K-CART)	Completion of state-approved training (described on page 22)	Completion of 40-hour training and RBT exam
Hours of Experience	1,000 hours working with a child with ASD	1,000 hours working with a child with ASD	N/A

Source: Adapted from the 2007 HCBS Autism Waiver Handbook, a 2017 memo from the Kansas Department for Aging and Disability Services and the Behavior Analyst Certification Board Practice Guidelines for ASD.

Private Coverage

The following is an example of a private coverage option in Kansas that covers ABA services for eligible members.

Blue Cross Blue Shield of Kansas: Blue Cross Blue Shield (BCBS) of Kansas also provides ABA services to its members.[107] Providers may contract with BCBS of Kansas if they are BCBAs, BCaBAs, IIS, or RBTs. Education-based providers, such as special education teachers and tutors, are not able to provide services under the BCBS of Kansas autism benefit. IIS providers must show their Kansas Medical Assistance Program (KMAP) letter in order to provide services and all other providers must show proof of their BACB certification to provide services.

To receive services under the autism benefit, an individual must receive an ASD diagnosis from a qualified provider (e.g., physician, psychiatrist, Licensed Clinical Social Worker, etc.) and undergo a diagnostic evaluation. Services provided under the autism benefit cannot duplicate what an individual receives under an IEP or an individualized service plan. Autism services can be provided at both the comprehensive treatment level and the focused treatment level. Parent training also is recommended under the BCBS of Kansas autism benefit. Information related to the ages the benefit covers may differ by member contract.

Third party liability

Third party liability (TPL) occurs when an individual has both KanCare and an additional source of health care coverage. The additional source of coverage, such as employer-based coverage, becomes the “third party” and is required to pay for any covered services before a provider may bill KanCare. [108]

It is not uncommon for an individual with ASD to have KanCare and an additional source of coverage, initiating TPL processes. In Kansas, understanding third party coverage beyond KanCare is the responsibility of the provider. Providers may not bill KanCare prior to payment or denial of a claim from a third party. TPL can create confusion and potentially cause delays in payment, as private coverage of ASD services varies by plan. If providers are unaware of third-party sources of coverage and first bill KanCare, KanCare is obligated to reject the claim if evidence of third party coverage exists. Providers are then required to file a claim with a third party and receive a response before again billing KanCare.[109]

Supply and Demand for ABA Services in KanCare

To assess the demand for ABA services in KanCare, claims and encounter data from KanCare were analyzed. To assess the supply of ABA services in KanCare, information was compiled on the number of potential and actual providers in the state, where available.

Demand of ABA services in KanCare

According to KanCare claims data, 5,405 individuals age 0-21 had a diagnosis of ASD in 2017, up from 4,869 individuals in 2016 (*Figure 5*). Individuals were identified as having an ASD diagnosis if they had a primary or secondary diagnosis of ASD listed on a KanCare claim during the year or were utilizing the Autism Waiver.

Figure 5. **Number of Individuals (Age 0-21) with ASD in KanCare Receiving ASD Services**

	2016	2017
Number of individuals with ASD	4,869	5,405
Number of individuals with ASD receiving ASD services	113	153

Note: Includes all children and young adults (age 0-21) enrolled in KanCare with a primary or secondary diagnosis of ASD and/or individuals who are utilizing the Autism Waiver. "ASD services" refers to CCTS and IIS services provided previously under the Autism Waiver and currently under the state plan. The billing codes for these services are described in greater detail in *Figure 6*.

Source: Kansas Health Institute analysis of data from the KanCare Data Analytic Interface.

Under the Autism Waiver, two billing codes were used for ASD services: H2015 for Consultative Clinical Therapeutic Services (CCTS) and H2019 for Intensive Individual Support (IIS). With the addition of ASD services to the state plan in 2017, eight codes were added to bill for ASD services. These eight codes were CPT codes developed by the AMA to report ABA services.[110] Four of the codes were for CCTS services, while four were for IIS services (*Figure 6*).

Figure 6. **ASD Services Billing Codes: KanCare State Plan and Autism Waiver**

Billing Code	Service	Provider	Time per unit	Payment per unit**
H2015*	Consultative Clinical Therapeutic Services	CCTS	15 minutes	$17.50
H2019*	Intensive Individual Support	IIS	15 minutes	$6.25
0359T	Behavior Identification Assessment	CCTS	90 minutes	$70.00
0360T	Observational Behavioral Follow-up Assessment	IIS	30 minutes	$35.00
0361T	Observational Behavioral Follow-up Assessment (Additional Time)	IIS	30 minutes	$35.00

Figure 6 (continued). **ASD Services Billing Codes: KanCare State Plan and Autism Waiver**

Billing Code	Service	Provider	Time per unit	Payment per unit**
0364T	Adaptive Behavior Treatment by Protocol	IIS	30 minutes	$12.50
0365T	Adaptive Behavior Treatment by Protocol (Additional Time)	IIS	30 minutes	$12.50
0368T	Adaptive Behavior Treatment with Protocol Modification	CCTS	30 minutes	$35.00
0369T	Adaptive Behavior Treatment with Protocol Modification (Additional Time)	CCTS	30 minutes	$35.00
0370T	Family Adaptive Behavior Treatment Guidance	CCTS	Untimed	$35.00

* Denotes billing codes previously used under the Autism Waiver, which were end-dated March 31, 2017.

** KDHE establishes the fee schedule for these billing codes. KanCare managed care organizations must pay at least the fee schedule rate to providers in their networks.

Source: Adapted from the Kansas Department of Health and Environment, 2017, and the Association for Behavior Analysis International, 2018.

To qualify for ASD services in the KanCare state plan (and previously under the Autism Waiver) medical necessity criteria must be met, in addition to a diagnosis of ASD. In 2017, the first year that ASD services were incorporated from the Autism Waiver into KanCare managed care, 153 individuals age 0-21 with ASD received ASD services.[1] Total spending for ASD services was $1,444,456 (*Figure 7*). On average, spending for ASD services comprised almost half (47.4 percent) of total health care spending for individuals who received ASD services in 2017.

Figure 7. **ASD Services Expenditures and Total Health Care Expenditures for individuals with ASD Receiving ASD Services Enrolled in KanCare, 2017**

	Total Spending
Total ASD Services Expenditures	$1,444,456
Total Health Expenditures	$3,214,736
	Percent of ASD Expenditures in Total Health Expenditures
Average	47.4%
Median	42.5%

Note: The percent of ASD expenditures in total health expenditures were calculated by dividing total ABA spending by total health care spending for each individual. The average and median percent were derived from 152 individuals age 0-21 with ASD in KanCare who received ASD services in 2017 and who had complete expenditure data available. The billing/procedure codes used to calculate expenditures associated with ASD services are described in *Figure 6* (page 25).

Source: Kansas Health Institute analysis of data from the KanCare Data Analytic Interface.

[1] Not all individuals who received ASD services had a corresponding ASD diagnosis according to their claims.

In 2017, a total of 45,958 units were billed for CCTS services, and 282,290 units were billed for IIS services (*Figure 8*). The median CCTS units used per individual was 36, equivalent to 1,674 minutes (approximately 28 hours) of CCTS services. According to the SPA, the soft limit on CCTS services is 50 hours per year. The median IIS units used in 2017 per individual was 247.5, equivalent to 6,682.5 minutes (approximately 111 hours) of IIS services. The soft limit on IIS services is 25 hours per week. Our analysis focused on 2017 as it was first year that ASD services were available in the KanCare state plan, and full year data were not yet available for 2018 at the time of this analysis. It may serve as a baseline for assessing utilization in future years.

Figure 8. **Intensity of ASD Services Provided in KanCare, 2017**

Service	Total Units	Total Minutes	Median Units per Individual	Median Minutes per Individual
Combined CCTS	45,958	2,137,047	36	1,674
H2015	17,818	267,270	91	1,365
0359T	241	21,690	2	180
0368T	9,241	277,230	40	1,200
0369T	15,900	477,000	75	2,250
0370T	2,758	186,165	9.5	641
Combined IIS	282,290	7,621,830	247.5	6,683
H2019	87,215	1,308,225	656	9,840
0360T	449	13,470	6	180
0361T	931	27,930	12	360
0364T	32,002	960,060	193.5	5,805
0365T	161,693	4,850,790	614	18,420

Note: 0370T is an untimed service unit, with minutes provided ranging from 60-75 minutes. To calculate minutes provided via 0370T, 60 and 75 minutes were averaged and then multiplied by the number of units.

Source: Kansas Health Institute analysis of data from the KanCare Data Analytic Interface.

Supply of ABA Providers

As laid out in the Applied Behavior Analysis Licensure Act, providers may offer ABA services in Kansas if they are:

- Licensed as an LBA or LaBA with the BSRB;
- Qualified to provide services via the Autism Waiver;
- An IDEA provider;

- Engaging in supervised clinical experience; and
- Occupational therapists, speech language pathologists or audiologists.

Due to the number of ways providers can be qualified to provide ABA services within Kansas, understanding the supply of ABA providers in KanCare — and potential ABA providers — requires information from multiple sources. Because not all certified providers may currently be offering services, where available we have provided the number of certified providers (potential providers) and KanCare providers. We also focused on the two dominant ways that providers have been certified to provide ABA services for insurance purposes: licensure through the BSRB or the Autism Waiver.

According to the BACB, the national certification board for ABA, there were 24 BCBA-Ds and 138 BCBAs in Kansas in December 2018 (*Figure 9*). Once certified with the BACB, providers have the option to be licensed as behavior analysts in Kansas through the BSRB. According to the BSRB, there were 174 LBAs (BCBAs and BCBA-Ds) and 14 LaBAs (BCaBAs) in December 2018 (*Figure 10*). The BSRB and BACB numbers should be considered potential providers, as some might not be offering services.

Figure 9. **Number of BACB-Certified Providers in Kansas, 2018**

	Number of Providers
BCBA-D	24
BCBA	138
BCaBA	13
RBT	280

Note: BCBA-D, BCBA, BCaBA and RBT numbers accessed from BACB in December 2018. The providers listed in this table should be considered potential providers, as not all may be currently offering services.

Source: Kansas Health Institute analysis of data from the Behavior Analyst Certification Board, December 2018.

Figure 10. **Number of Licensed Behavior Analysts and Assistant Behavior Analysts in Kansas, 2018**

	Number of Providers
Behavior Analysts (LBA)	174
Assistant Behavior Analysts (LaBA)	14

Note: Numbers were requested from BSRB, the regulatory board responsible for licensing LBA and LaBAs in Kansas, in December 2018. Only individuals who are certified by the BACB can be licensed by the BSRB. The providers listed in this table should be considered potential providers, as not all may be currently offering services.

Source: Kansas Behavioral Science Regulatory Board, November 2018.

Those who are qualified to provide services through the Autism Waiver by having completed state-approved training requirements are also potential providers. K-CART, the largest provider of state-approved training curriculum, trained 252 autism specialists and 484 IIS providers between 2008 and 2015.[111] K-CART has trained additional providers since 2015, and given the 2017 policy change expanding the number of potential state-approved training curriculums, others also might be eligible to provide services under the Autism Waiver and the KanCare state plan. An exact count of potential providers added through state-approved trainings is not available.

The number of actual providers delivering services in KanCare is available, however, and includes providers licensed through the BSRB or providers who have completed state requirements. As of December 2018, there were 111 CCTS providers in KanCare.[112]

Providers not currently offering ABA services for KanCare might be providing services in other settings or for other insurers. Furthermore, some certified ABA providers might not be providing ABA services through insurers and instead work in other related settings. This could include special education teachers in public schools or faculty at universities.

Survey of Current ABA Providers

In testimony to the Kansas Legislature in recent years, ABA providers have expressed concern over coverage of ABA services in Kansas, specifically following the addition of ASD services to KanCare. Issues described by providers include low rates of reimbursement, lack of timely reimbursement, issues receiving certification, and confusion over policy changes. According to testimony, these issues have caused some providers to limit the number of KanCare consumers they will serve, or to stop providing services for KanCare altogether. To assess the prevalence of these issues for providers across the state, KHI administered a survey to consultant-level ABA providers (BCBAs, BCBA-Ds and autism specialists) in Kansas.

The survey contained 30 questions and included skip logic to allow respondents to provide information for relevant areas (See *Appendix B*, page B-1, for the full survey instrument). The survey included three main sections:

1. Description of provider;
2. ABA provider experience with KanCare; and

3. ABA provider experience with private (commercial) health insurance.

The survey was emailed to ABA providers through three channels: the BACB mass email service (124 individuals emailed), KansABA membership (approximately 250 individuals emailed), and individuals who had completed training through K-CART (approximately 200 individuals emailed). Providers emailed through these channels likely overlapped. Additionally, some providers emailed the survey may only provide services in a school setting or may no longer provide ABA services. In addition, KansABA members could include providers who practice in Kansas City, Missouri. Information is not available to estimate the number of unique providers actively providing ABA services covered by public and private insurance in Kansas.

The survey was available for completion from November 30, 2018, to December 13, 2018. During that time, 54 respondents agreed to participate in the survey. After reviewing the responses, we excluded (1) two respondents who only answered two or fewer questions due to limited information, (2) seven school-based providers whose practice was governed by special education instead of insurance payers, (3) four technician-level providers who did not meet the survey participation criteria, and (4) seven providers who do not currently provide ABA services to individuals with ASD. One of the main reasons noted for why these providers no longer offer services is a shortage of qualified staff. Our final analysis consisted of 34 respondents.

The response rate ranged from 13.6 percent to 19.5 percent, using the maximum number of individuals contacted via an email list (KansABA, approximately 250 individuals) or the total number of LBAs in the state (174 LBAs) as the denominator. This response rate is an approximation, as the exact number of ABA providers in the state is unknown. It also might be an underestimation, as the denominator might include providers not currently offering services or only offering services in schools.

Due to the low number of respondents, the following results should not be generalized to all ABA providers in the state. They can, however, provide an overview of the experience of those who chose to participate.

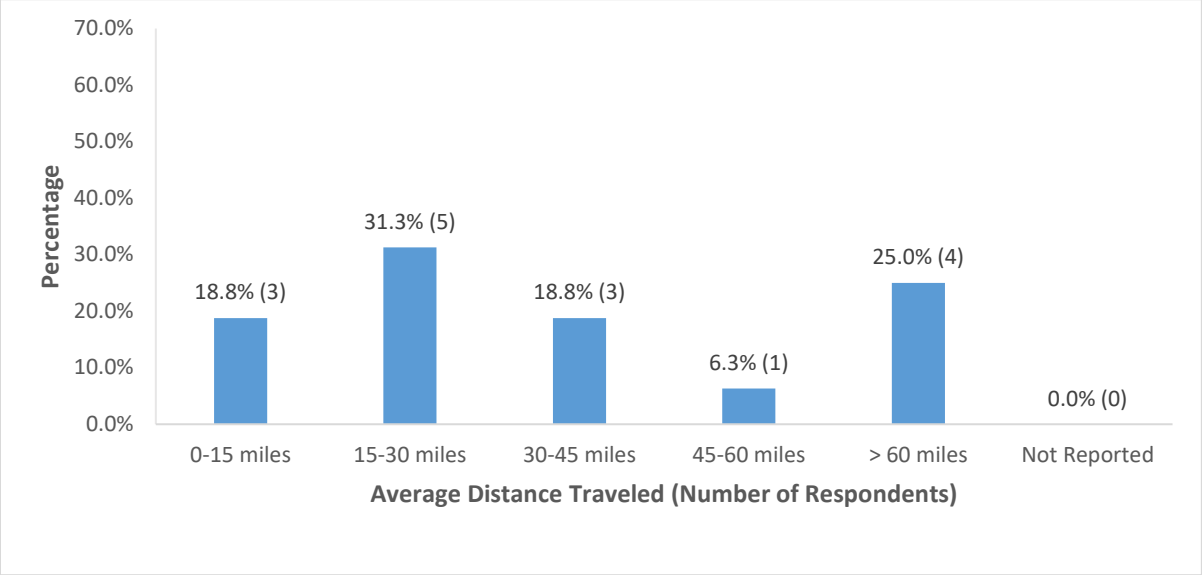
Description of Provider

Following application of the exclusion criteria (described above), there were 34 potential respondents for this section of the survey; however, not all 34 responded to each question.

Provider and Practice Characteristics: Most (82.4 percent, 28 respondents) survey respondents were certified as BCBAs or BCBA-Ds, and more than half (58.8 percent, 20 respondents) provided services as part of a group practice. More than one-third (41.2 percent, 14 respondents) of survey respondents indicated that more than half of the ABA services they provide occur in-center, as opposed to in a home or community-based setting.

Service Areas and Travel Distance: More than half (55.9 percent, 19 respondents) of survey respondents work in practices located in the northeastern part of the state, and service areas are concentrated in metropolitan areas (Kansas City and Wichita). Almost half (47.1 percent, 16 respondents) of survey respondents indicated that they travel to provide ABA services (*Figure 11*), and nearly two-thirds (61.8 percent, 21 respondents) indicated that individuals with ASD traveled to them to receive services, with an average travel distance of less than 30 miles (*Figure 12,* page 32).

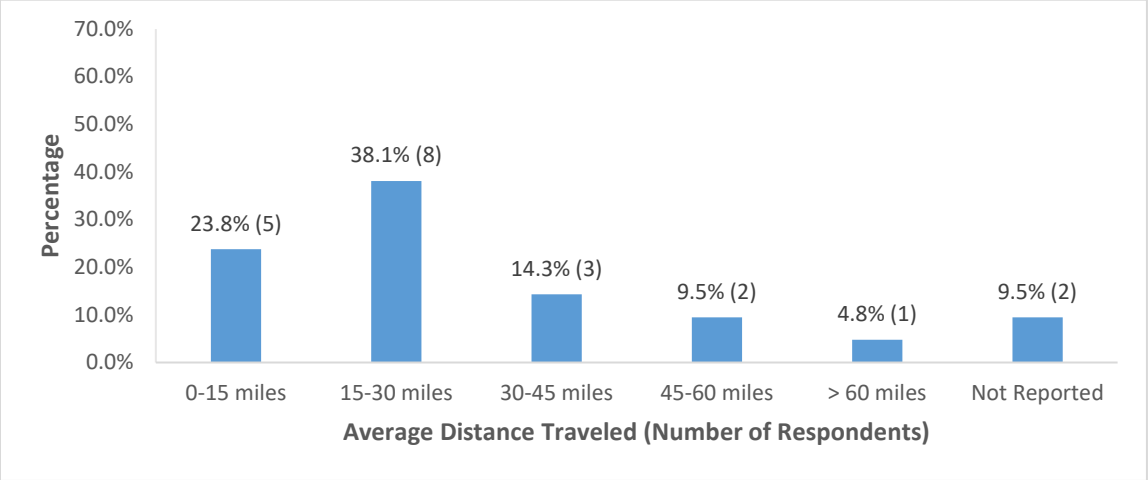
Figure 11. **Average Distance Traveled by ABA Providers to Offer Services**



Note: Number of respondents = 16.

Source: Kansas Health Institute analysis of data from the Kansas ABA Provider Survey, 2018.

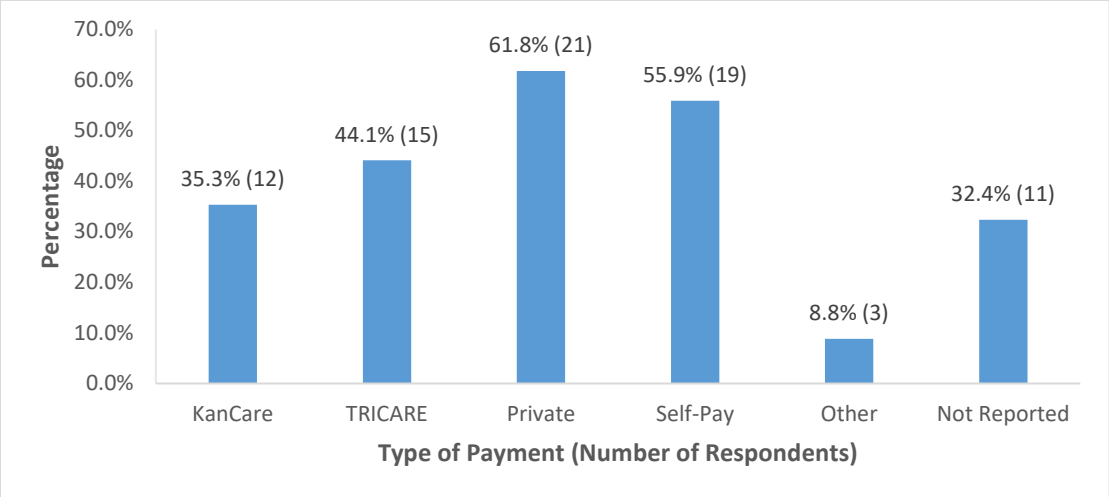
Figure 12. **Average Distance Individuals with ASD Travel to Receive ABA Services**



Note: Number of respondents = 21.
Source: Kansas Health Institute analysis of data from the Kansas ABA Provider Survey, 2018.

Health Insurance Accepted by Providers: Survey respondents generally accepted payment through multiple mechanisms (*Figure 13*), so respondents for each payment type are not mutually exclusive in this section. Approximately one-third (35.3 percent, 12 respondents) indicated that they accept KanCare, while more than half (61.8 percent, 21 respondents) indicated that they accept private insurance, followed by self-pay (55.9 percent, 19 respondents) and TRICARE (44.1 percent, 15 respondents). Nearly one-third (32.4 percent, 11 respondents) of survey respondents did not indicate any forms of payment that they accept; therefore, they did not answer questions related to KanCare or private insurance.

Figure 13. **Payment Accepted by ABA Provider Survey Respondents**



Note: Number of respondents = 34. Providers were able to select more than one type of payment.
Source: Kansas Health Institute analysis of data from the Kansas ABA Provider Survey, 2018.

Providers Not Accepting KanCare: Respondents who do not accept KanCare were asked why they do not accept it. Those who responded indicated that reimbursement level and availability of qualified staff were some of the most prominent reasons for not accepting KanCare.

ABA Provider Experience with KanCare

Of the 12 respondents who accepted KanCare, 11 responded to questions regarding their experience with KanCare. We used the 11 respondents as the denominator for analyzing provider experience with KanCare unless otherwise specified. These 11 respondents are approximately 10 percent of providers able to bill CCTS services in KanCare.

Experience requirements: More than half (54.5 percent, 6 respondents) of survey respondents indicated that they believe the CCTS experience requirements for KanCare are appropriate. One-third (36.4 percent, 4 providers) indicated that the CCTS experience requirements for KanCare are not stringent enough, with written responses indicating that training requirements appear to be lax.

More than half (54.5 percent, 6 respondents) of survey respondents indicated that they believe the IIS experience requirements for KanCare are appropriate, while one-third (36.4 percent, 4 providers) of survey respondents indicated that they believe the IIS experience requirements to be overly stringent. Survey respondents who indicated experience requirements were overly stringent cited the 1,000-hour experience rule as the main issue.

Billing and Reimbursement Concerns: Almost all (90.9 percent, 10 respondents) survey respondents indicated that the time to receive a billing number from KanCare following approval was long or too long, with many citing month-long waits to be able to bill KanCare for services. Almost all (81.8 percent, 9 respondents) indicated that the current levels of KanCare reimbursement for services were not high enough to sustain their practices. In addition to citing low reimbursement levels, some respondents added that a lack of reimbursement for travel was a concern.

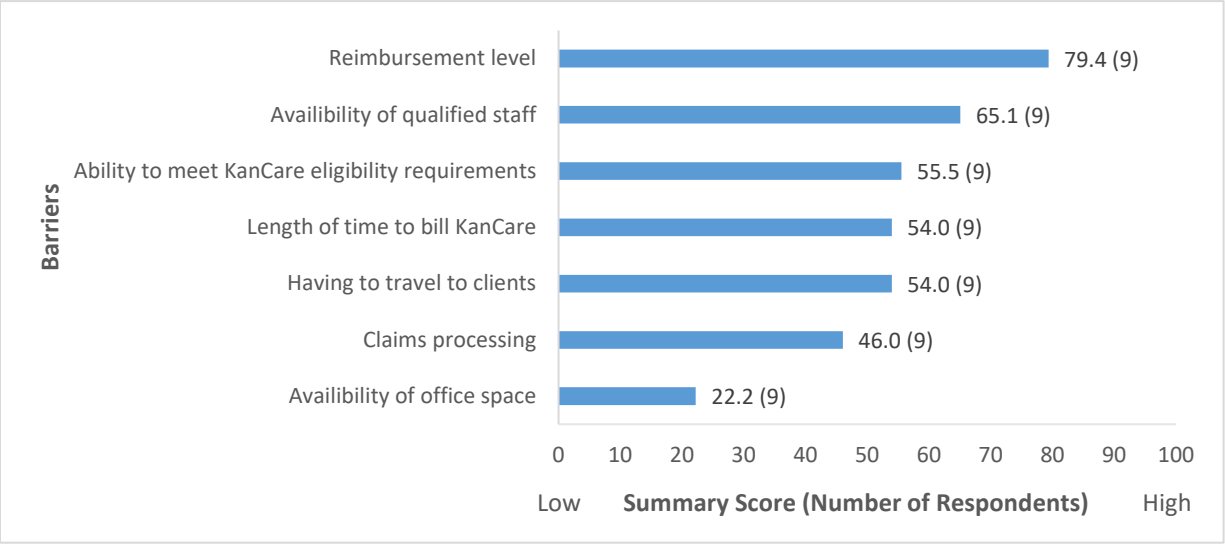
Waitlist: All survey respondents (100 percent, 11 respondents) stated that they had a waitlist for individuals with ASD enrolled in KanCare needing ASD services, with more than half (54.5 percent, 6 respondents) indicating that their waitlist had 100 or more individuals on it. Due to few providers in the state, it is possible that individuals with ASD are on multiple waitlists, causing overlap in provider waitlists. Among seven respondents who provided average wait time

on their waitlists, the wait time ranged from six to 48 months with an average close to two years (22.3 months).

Barriers to Providing Services: The most significant barriers to providing ABA services to KanCare members with ASD was the reimbursement level followed by the availability of qualified staff (*Figure 14*).

Barriers to Receiving Services: ABA providers also were asked to provide their perspective regarding KanCare member access to ABA services (*Figure 15,* page 35). The long waitlist stood out as the most prominent barrier to accessing ABA services, followed by travel distance to providers.

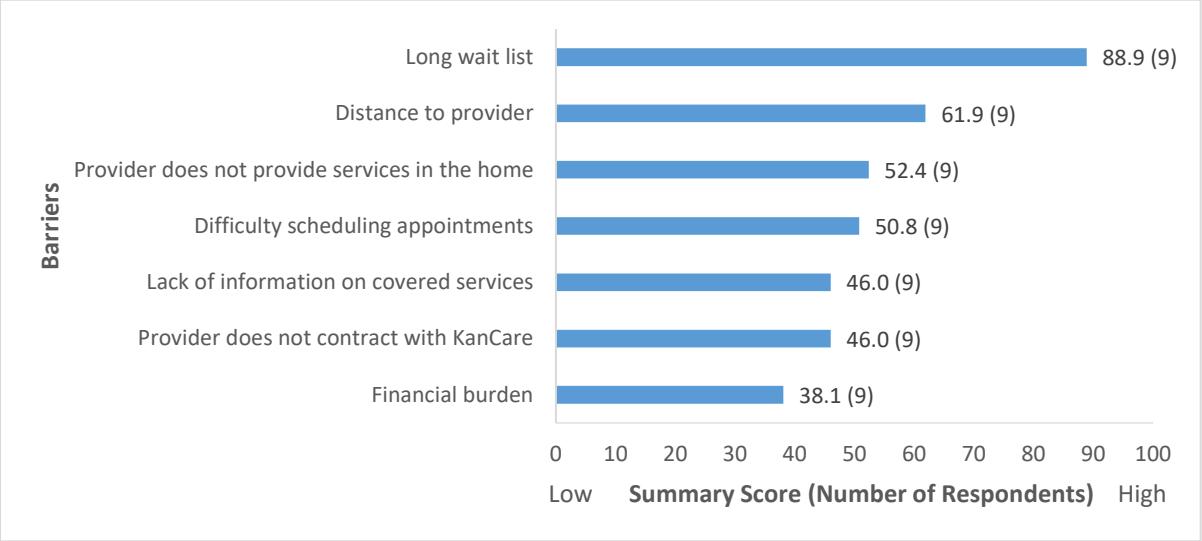
Figure 14. **Barriers to Providing ABA Services to Individuals Enrolled in KanCare**



Note: Number of respondents = 9. A summary score was calculated by multiplying the rank by the number of responses and the range of summary score was rescaled to 0-100; higher summary scores indicate more significant barriers.

Source: Kansas Health Institute analysis of data from the Kansas ABA Provider Survey, 2018.

Figure 15: **Barriers to Receiving ABA Services for Individuals Enrolled in KanCare**



Note: Number of respondents = 9. A summary score was calculated by multiplying the rank by the number of responses and the range of summary score was rescaled to 0-100; higher summary scores indicate more significant barriers.

Source: Kansas Health Institute analysis of data from the Kansas ABA Provider Survey, 2018.

ABA Provider Experience with Private (Commercial) Insurance

Of the 21 respondents who accepted private insurance, 17 responded to questions regarding their experience with private insurance. We used the 17 respondents as the denominator for analyzing provider experience with private insurance unless otherwise specified.

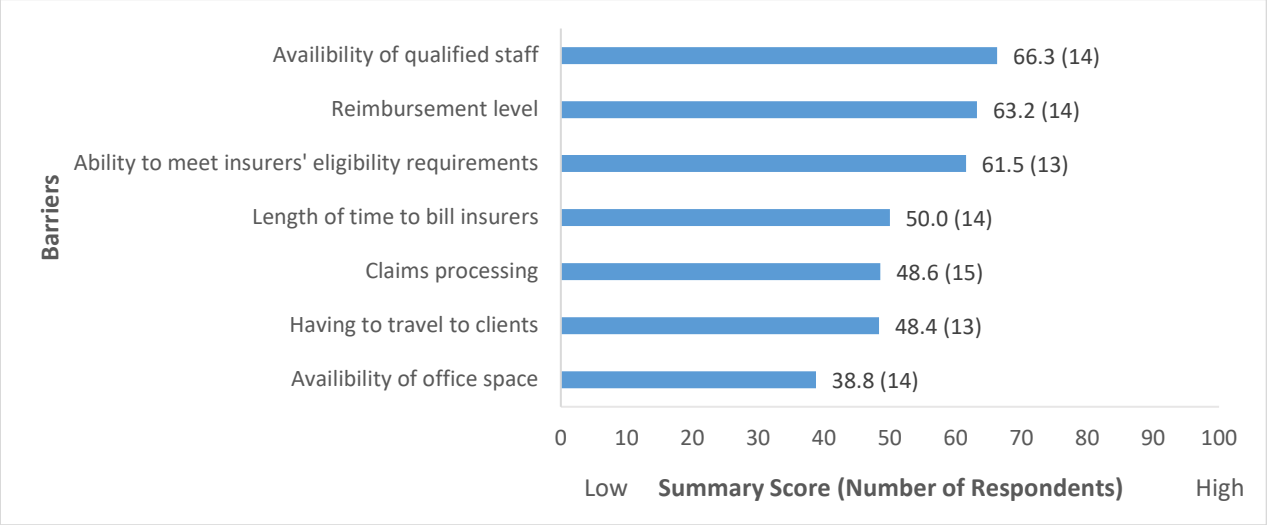
Billing and Reimbursement Concerns: Nearly two-thirds (64.7 percent, 11 respondents) indicated that reimbursement received from private insurance was not adequate to sustain their practice. More than half (52.9 percent, 9 respondents) of survey respondents said that they had negotiated with private insurers for higher rates, although some indicated that these negotiations were not always successful.

Waitlist: Nearly two-thirds (64.7 percent, 11 respondents) of respondents indicated that they have a waitlist for individuals with ASD on private insurance needing ABA services, with three respondents having waitlists with 50 or more individuals. Among eight respondents who provided average wait time on their waitlists, wait time ranged from three to 48 months with an average close to one and a half years (19.4 months).

Barriers to Providing Services: The most significant barriers to providing ABA services to individuals with ASD on private insurance is the availability of qualified staff, the reimbursement level and ability to meet insurance eligibility requirements (*Figure 16,* page 36).

Barriers to Receiving Services: When ABA providers were asked to provide their perspective regarding access to ABA services among individuals with private insurance, lack of coverage for ABA services and financial burden were the two most significant barriers (*Figure 17*).

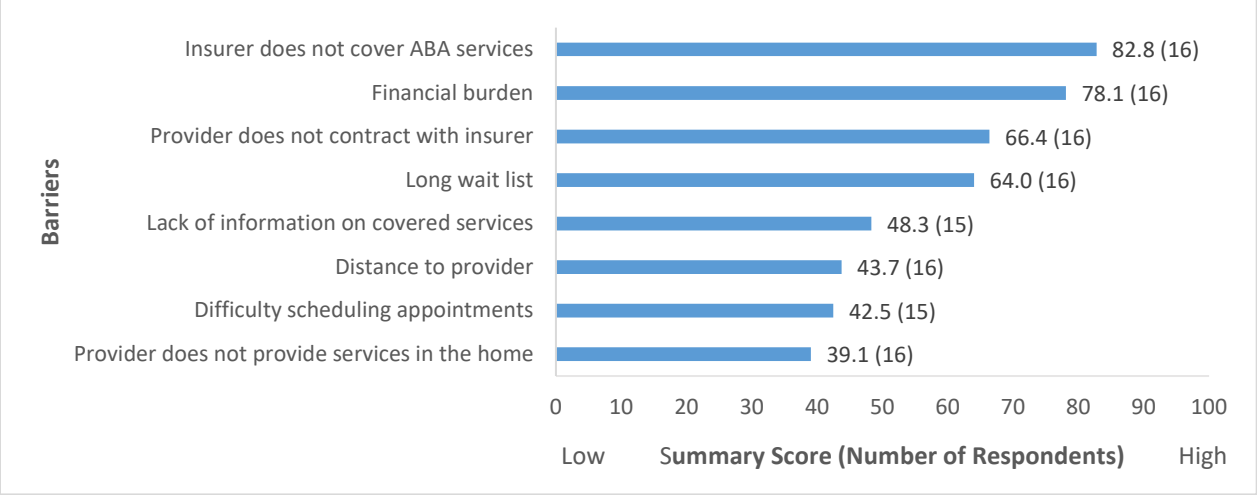
Figure 16. **Barriers to Providing ABA Services to Individuals with Private Insurance**



Note: Number of respondents = 16. Respondents were not required to rank every barrier, so the number of respondents who ranked the barrier — provided in parentheses following the summary score — may be fewer than 16. A summary score was calculated by multiplying the rank by the number of responses and the range of summary score was rescaled to 0-100; higher summary scores indicate more significant barriers.

Source: Kansas Health Institute analysis of data from the Kansas ABA Provider Survey, 2018.

Figure 17. **Barriers to Receiving ABA Services for Individuals with Private Insurance**



Note: Number of respondents = 16. Respondents were not required to rank every barrier, so the number of respondents who ranked the barrier — provided in parentheses following the summary score — may be fewer than 16. A summary score was calculated by multiplying the rank by the number of responses and the range of summary score was rescaled to 0-100; higher summary scores indicate more significant barriers.

Source: Kansas Health Institute analysis of data from the Kansas ABA Provider Survey, 2018.

Discussion and Conclusions

ABA is an intensive treatment that utilizes principles of behavior and learning to modify socially significant behaviors (e.g., using positive reinforcement to encourage a desired behavior). While there are limitations with the current evidence assessing ABA, to date it appears to be the most effective treatment mechanism for ASD. In particular, ABA benefits preschool age children, and early intervention might reduce long-term costs associated with ASD.

The costs of providing ABA are high ($40,000 to $60,000 per year) and across the U.S. states struggle to provide ABA to individuals who need it. The cost of providing ABA, few ABA providers and long waitlists all have been cited as reasons for the lack of access. The state added additional ASD services to the KanCare state plan in 2017, which included CCTS and IIS codes previously covered under the Autism Waiver. Moving CCTS and IIS services to the KanCare state plan was intended to expand the number of children able to access ABA services in KanCare.

In 2017, the first year that CCTS and IIS services were covered under the KanCare state plan, 40 more individuals age 0-21 with ASD received these services than in 2016 under the Autism Waiver. In the same year, more than 5,000 individuals had a diagnosis of ASD in the KanCare program. While not all individuals with an ASD diagnosis likely required ABA, the number of individuals (N=153) receiving ASD services remains low. Service utilization in KanCare will need to be assessed as more years of data become available.

One reason why many individuals in KanCare are not receiving ASD services might be due to the low number of providers in the state. As of December 2018, only 174 behavior analysts were licensed with the BSRB, and only 111 unique CCTS providers were enrolled with KanCare. Given the intensity of ASD services, the BACB recommends caseloads of six to 24 individuals per provider at one time. The combination of few providers and small caseloads means that only so many individuals with ASD can access services at once.

Information collected from a survey of consultant-level ABA providers in the state offers additional insight to potential access issues in Kansas. With a response rate ranging from 13.6 percent to 19.5 percent, the results provide insight to concerns from 34 ABA providers who are currently offering services to individuals who self-pay or have insurance.

When asked which forms of payment they accept, survey respondents said they are most likely to accept private insurance and least likely to accept KanCare. Respondents who do not accept KanCare noted that the reimbursement level is the leading reason.

Access concerns appear to be present for both private insurance and KanCare, although they might be more pronounced for KanCare. Of the 11 survey respondents who did accept KanCare, all indicated that they have a waitlist for children with ASD to begin receiving services. Nearly two-thirds (64.7 percent, 11 out of 17) of survey respondents who accept private insurance also indicated that they have a waitlist for individuals with ASD with private insurance. Once on the waitlist, the average time to begin receiving services for individuals enrolled in KanCare was close to two years (22.3 months), and the average wait time for individuals with private insurance was over a year and a half (19.4 months).

While half (54.5 percent, 6 out of 11) of respondents indicated that current training requirements for KanCare providers (CCTS and IIS) are appropriate, one-third (36.4 percent, 4 out of 11) of respondents indicated that the CCTS requirements are too lax and that IIS requirements are too stringent. Although not conclusive, it is worth noting the difference in responses to training requirements for CCTS and IIS. A review of current training requirements could help the state ensure the quality of and access to services.

Among the most prominent barriers for survey respondents to offer ABA services are reimbursement levels and the availability of qualified staff for both KanCare and private insurance. State-approved trainings for CCTS and IIS providers were expanded in 2017, which might increase the number of providers in future years. However, encouraging more people to complete trainings and retaining these providers might be a challenge due to insufficient reimbursement rates and a disruption of state funding for provider trainings. While increasing reimbursement rates will increase expenditures for the state, potential offsets could be seen through savings in other service areas (e.g., special education).[113]

Survey respondents indicated that waitlists and distance to providers are the most significant barriers that families enrolled in KanCare face when trying to obtain services. This reflects the shortage of providers in the state and is consistent with barriers to offering services as reported by survey respondents. However, private insurance providers indicated that lack of ABA coverage and financial burden are the most significant barriers that families with private insurance face when receiving services. Even though recent legislation mandated coverage of ABA services, this mandate applies only to insurance policies offered through large group health

plans and grandfathered individual and small group health plans; insurance offered by employers who self-insure and non-grandfathered individual and small group plans are not covered by the mandate. Additionally, some families might not have updated and comprehensive information on coverage and eligibility requirements, and they might face high out-of-pocket expenses (e.g., deductibles and copayments). This issue deserves additional analysis to better understand how well the legislative mandate has achieved its intended objective.

Limitations

A few limitations should be noted when interpreting these findings. First, diagnosis alone cannot determine the need for ASD services. Without medical necessity information, the number of individuals requiring ABA in KanCare cannot be accurately estimated. However, responses from the ABA provider survey indicate that many individuals have been on waitlists for ABA services for an extended period of time. Second, the supply analysis might not accurately capture the number of potential providers in the state, as this analysis lacks comprehensive information on the number of providers who might meet state requirements to provide ASD services under the KanCare state plan. Third, findings from the ABA provider survey might not generalize to all ABA providers in Kansas due to the response rate. However, these results provide an overview of the experience of those who chose to participate and identify potential issues for further exploration.

Conclusions

Additional policy changes might improve access to ABA services, although they also might increase health care expenditures. Increases to ASD services reimbursement rates may increase provider participation in both KanCare and private insurance. Increased rates might offset overhead costs associated with providing ABA services, including travel to provide services, particularly for those who provide services in rural areas.

The state agencies expanded approved training curriculums for ASD services in 2017, and the addition of new state-approved trainings might increase the number of providers in the state in future years. Providing incentives or funding for training also might increase the uptake of providers completing training. Streamlining the process for providers to be credentialed with the KanCare MCOs and decreasing the wait time to begin receiving a billing number from KanCare also might allow providers to begin offering services to KanCare beneficiaries sooner.

The state has made changes to increase the number of individuals eligible for ASD services in Kansas, however, additional changes may be needed if policymakers would like to further increase the number of individuals actually accessing ABA.

Appendix A. Acronyms

Acronym	Meaning
ABA	Applied Behavior Analysis
ACA	Patient Protection and Affordable Care Act
AHRQ	Agency for Healthcare Research and Quality
AMA	American Medical Association
ASD	Autism Spectrum Disorder
BACB	Behavior Analyst Certification Board
BCaBA	Board Certified Assistant Behavior Analysts
BCBA	Board Certified Behavior Analyst
BCBA-D	Board Certified Behavior Analyst — Doctoral
BCBS	Blue Cross Blue Shield
BSRB	Behavioral Sciences Regulatory Board
CCTS	Consultative Clinical and Therapeutic Services
CDC	Centers for Disease Control and Prevention
CHIP	Children's Health Insurance Program
CMCS	Center for Medicaid and CHIP Services
CMS	Centers for Medicare and Medicaid Services
CPT	Current Procedural Terminology
DAI	Data Analytic Interface
DOD	Department of Defense
EHB	Essential Health Benefits
EPSDT	Early and Periodic Screening, Diagnostic and Treatment
FDA	Food and Drug Administration
HB	House Bill
HCBS	Home and Community-Based Services
HHS	Department of Health and Human Services
HRSA	Health Resources and Services Administration
IACC	Interagency Autism Coordinating Committee
IEP	Individual Education Plan
IIS	Intensive Individual Support
K-CART	Kansas Center for Autism Research and Training
KansABA	Kansas Association for Behavior Analysis
KDADS	Kansas Department for Aging and Disability Services
KDHE	Kansas Department of Health and Environment

Acronym	Meaning
KMAP	Kansas Medical Assistance Program
NIH	National Institute of Health
NIMH	National Institute of Mental Health
MCO	Managed Care Organization
PRL	Proposed Recipient List
RBT	Registered Behavior Technician
SB	Senate Bill
SEHP	State Employee Health Plan
SPA	State Plan Amendment
SS	Senate Substitute
TEP	Technical Expert Panel
TPL	Third Party Liability

Appendix B. ABA Provider Survey

ABA Provider Survey

Start of Block: Block 1

S1 ***Section 1: Informed Consent***
While recent legislation and administrative changes were intended to improve access to applied behavior analysis (ABA) for individuals with autism spectrum disorder (ASD), there has not been a comprehensive assessment of this issue in Kansas. The Kansas Health Institute (KHI) is collaborating with Easterseals Capper Foundation and Autism Speaks to examine potential access barriers for ABA services. As someone who is certified to provide ABA services, we would like to ask you to complete the following survey to provide insight on this issue. The information gathered from this survey will help inform future policy discussions around ABA.

Your responses will be combined with responses from other ABA providers for analysis, and results will be reported in aggregate. Therefore, no individual responses will be reported, and you will not be directly identified. You may choose to skip questions that you do not feel comfortable answering or leave the survey at any time.

The survey should take approximately 20 minutes to complete. We ask that you complete the survey by December 10, 2018. Please note that while you may have received notice of this survey from multiple sources, we ask that you only complete it once. If you have any questions, please contact Sydney McClendon (smcclendon@khi.org)
If you agree to participate in this survey, please check the box for "Agree" below.

- ○ Agree
- ○ Decline

End of Block: Block 1

Start of Block: Block 2

S1 ***Section 2: Description of Provider***
In this first section, we would like to ask you general questions about your work as a provider and your practice. For the purpose of this survey, we are focusing on individuals that you provide applied behavioral analysis (ABA) services to that are age 0-21. Please exclude any individuals above this age range that you may serve when answering questions.

Q1 Do you currently provide ABA services to individuals with ASD?

- ○ Yes
- ○ No

Q1b If you do not currently provide ABA services to individuals with ASD, please rank the following items regarding the most prominent reasons why (1 = most prominent reason, 8 = least prominent reason):

_____ Availability of qualified staff
_____ Availability of office space
_____ Having to travel to clients
_____ Claims processing
_____ Ability to meet insurance eligibility requirements
_____ Length of time to bill insurance once eligible
_____ Reimbursement level
_____ Other:

Q2 What is (are) your level(s) of credential or certification in ABA? (check all that apply):

- ☐ Board Certified Behavior Analyst – Doctoral (BCBA-D)
- ☐ Board Certified Behavior Analyst (BCBA)
- ☐ Board Certified Assistant Behavior Analyst (BCaBA)
- ☐ Registered Behavior Technician (RBT)
- ☐ Autism Specialist (as defined by KDHE)
- ☐ Intensive Individual Support Provider (IIS; as defined by KDHE)
- ☐ Other (please explain): _____

Q3 Do you supervise other ABA providers (e.g., technician-level providers)?

- ○ Yes
- ○ No

Q3b How many ABA providers do you supervise?

_____

Q4 To how many individuals with ASD do you currently provide ABA services?

_____

Q5 Relative to individuals with other diagnoses, approximately what percentage (%) of the ABA services you provide go towards individuals with ASD?

_____

Q6 At what kind of practice are you employed? (check all that apply):

- ☐ Group practice (e.g. working for an agency that has multiple service providers)
- ☐ Hospital-based practice
- ☐ Solo practice (e.g. in practice by yourself)
- ☐ Other: _____

Q7 In what county is your practice located?

▼ Allen (1) ... Wyandotte (105)

Q8a Do you have a defined service area?

- ○ Yes
- ○ No
- ○ Don't Know

Q8b If yes, who defined your service area?

- ○ Insurer
- ○ Practice-defined
- ○ Neither

Q8c If "Neither", please explain who defined your service area:

_____

Q8d Which counties are included in your service area? (select all that apply)

Q9 Estimate the percentage (%) of the services you (and any providers you supervise) provide in a home or community-based setting (e.g., service providers drive to a home or school) versus a center-based setting (e.g., services are provided in the provider's facility). The two percentages should sum to 100 percent:

- ○ Center-based setting: _____
- ○ Home and community-based setting: _____

Q10a Do you (and/or any providers you supervise) travel to provide ABA services to individuals with ASD?

- ○ Yes
- ○ No

Q10b If yes, select the range below that represents the average distance traveled to provide ABA services to individuals with ASD

- ○ 0-15 miles
- ○ 15-30 miles
- ○ 30-45 miles
- ○ 45-60 miles
- ○ Greater than 60 miles

Q10c If yes, do you receive reimbursement for travel expenses from insurers?

- ○ Yes
- ○ No

Q10d If you receive reimbursement for travel expenses, what is the reimbursement rate per mile?

_____

Q11 Do individuals with ASD travel to receive your (and/or any providers you supervise) ABA services?

- ○ Yes
- ○ No

Q11b If yes, select the range below that represents the average distance individuals with ASD travel to receive ABA services:

- ○ 0-15 miles
- ○ 15-30 miles
- ○ 30-45 miles
- ○ 45-60 miles
- ○ Greater than 60 miles

Q12a Which types of payment do you accept for providing ABA services to individuals with ASD? (Check all that apply):

- ☐ KanCare (Medicaid/CHIP)
- ☐ TRICARE (Military health insurance)
- ☐ Private (commercial) health insurance
- ☐ Self-pay
- ☐ Other (please list): _____

Q12b Please estimate the percentage (%) of individuals with ASD you serve, by payer. Percentages should sum to 100 percent:

- ○ KanCare (Medicaid/CHIP): _____
- ○ TRICARE (Military health insurance): _____
- ○ Private (commercial) health insurance: _____
- ○ Self-pay: _____
- ○ Other: _____

Q12d If you do not currently accept KanCare, did you previously?

- ○ Yes
- ○ No

Q12c If you do not accept KanCare, please rank the following items regarding why you do not accept KanCare (1 = most prominent reason, 8 = least prominent reason):

_____ Availability of qualified staff
_____ Availability of office space
_____ Having to travel to clients
_____ Claims processing
_____ Ability to meet KanCare eligibility requirements
_____ Length of time to bill KanCare once eligible
_____ Reimbursement level
_____ Other (please list):

End of Block: Block 2

Start of Block: Block 3

S3 ***Section 3: ABA provider experience with KanCare***
In this section, we will ask you questions related to your experience providing services in KanCare, the Kansas Medicaid program that also includes CHIP. For the purpose of this survey, we are focusing on individuals that you provide applied behavioral analysis (ABA) services to that are age 0-21. Please exclude any individuals above this age range that you may serve when answering questions.

Q13a
In your opinion, how would you describe the training/experiential requirements required to apply to be credentialed as a CCTS provider with KanCare? (Choose the best description):

- ○ Overly Stringent
- ○ Slightly Stringent
- ○ Appropriate
- ○ Not stringent enough

Q13b Please briefly explain your response to the previous question:

_____

Q14a In your opinion, how would you describe the training/experiential requirements required to apply to be credentialed as an IIS provider with KanCare?

- ○ Overly Stringent
- ○ Slightly Stringent
- ○ Appropriate
- ○ Not stringent enough

Q14b Please briefly explain your response to the previous question:

_____

Q15a In your opinion, how would you describe the additional requirements (e.g., background checks) required to apply to be credentialed as a CCTS or IIS provider with KanCare?

- ○ Overly Stringent
- ○ Slightly Stringent
- ○ Appropriate
- ○ Not stringent enough

Q16 Please briefly explain your response to the previous question:

_____

Q17a After ABA providers (both consultant-level and technician-level) receive approval from KanCare, do you feel the length of time to receive a billing number from KanCare is:

- ○ Too short
- ○ Short
- ○ Ideal
- ○ Long
- ○ Too long

Q17b Please briefly explain your response to the previous question:

_____

Q18a For which KanCare managed care organizations (MCOs) do you currently provide services? (Check all that apply):

- ☐ Amerigroup
- ☐ Sunflower Health Plan (Cenpatico)
- ☐ United Healthcare

Q18b If Amerigroup: On average, after you (and any provider you supervise) received a billing number from KanCare, how long did it to take for you to be credentialed with Amerigroup?

- ○ Weeks: _____

Q18c If Sunflower Health Plan (Cenpatico): On average, after you (and any provider you supervise) received a billing number from KanCare, how long did it to take for you to be credentialed with Sunflower Health Plan (Cenpatico)?

- ○ Weeks: _____

Q18d If United Healthcare: On average, after you (and any provider you supervise) received a billing number from KanCare, how long did it to take for you to be credentialed with United Healthcare?

- ○ Weeks: _____

Q19 Are you planning on enrolling with the new KanCare MCO (Aetna)?

- ○ Yes
- ○ No
- ○ Have not yet decided

Q20a Do you consider the current levels of KanCare reimbursement for ABA services adequate to sustain your practice?

- ○ Yes
- ○ No
- ○ Don't know

Q20b Please briefly explain your response to the previous question:

_____

Q21 Of the total number of individuals with ASD on KanCare that you serve, estimate the percentage (%) of individuals you serve for each age category. Percentages should sum to 100 percent:

- ○ Age 0-6: _____
- ○ Age 6-12: _____
- ○ Age 12-18 _____
- ○ Age 18-21: _____

Q22a Do you have a waitlist for individuals with ASD on KanCare needing ABA services?

- ○ Yes
- ○ No
- ○ Don't know

Q22b If yes, how many individuals are on the waitlist?

_____

Q22c On average, how long is the wait for individuals on the waitlist to receive ABA services from you?

○ Months: _____

Q23 Please rank the following items based on how negatively they impact your ability to provide ABA services to individuals with ASD on KanCare (1 = most negatively impacts, 8 = least negatively impacts):

_____ Availability of qualified staff
_____ Availability of office space
_____ Having to travel to clients
_____ Claims processing
_____ Ability to meet KanCare eligibility requirements
_____ Length of time to bill KanCare once eligible
_____ Reimbursement level
_____ Other (please list):

Q24 Please rank the following barriers to accessing ABA services you hear from parents of individuals with ASD on KanCare (1 = most negatively impacts, 8 = least negatively impacts):

_____ Distance to provider
_____ Provider does not contract with KanCare
_____ Provider does not provide services in the home
_____ Long waiting list
_____ Lack of information on covered services
_____ Difficulty in scheduling services/appointments with providers
_____ Financial burden
_____ Other (please list):

End of Block: Block 3

Start of Block: Block 4

S4 ***Section 4: ABA provider experience with private (commercial) health insurance***

In this section, we will ask about your experience as an ABA provider for private health insurance.

For the purpose of this section, private insurance does not include TRICARE (military insurance). Private insurance does include insurance provided through employers (e.g., Blue Cross Blue Shield of Kansas) and direct-purchase insurance (e.g., plans purchased on the Kansas Marketplace). For the purpose of this survey, we are focusing on individuals that you

provide applied behavioral analysis (ABA) services to that are age 0-21. Please exclude any individuals above this age range that you may serve when answering questions.

Q25a Do you consider the current level of private insurance reimbursement for ABA services adequate to sustain your practice?

- ○ Yes
- ○ No

Q25b Please briefly explain your response to the previous question:

_____

Q26a When contracting with private insurers, did you negotiate for a better reimbursement rate?

- ○ Yes
- ○ No

Q26b Please briefly explain your response to the previous question:

_____

Q27 Of the total number of individuals with ASD on private insurance that you serve, estimate the percentage (%) of individuals you serve for each age category. Percentages should sum to 100 percent:

- ○ Age 0-6: _____
- ○ Age 6-12: _____
- ○ Age 12-18: _____
- ○ Age 18-21: _____

Q28a Do you have a waitlist for individuals with ASD on private insurance needing ABA services?

- ○ Yes
- ○ No
- ○ Don't know

Q28b If yes, how many individuals are on the waitlist?

_____

Q28c On average, how long is the wait for individuals on the waitlist to receive ABA services from you?

- ○ Months: _____

Q29 Please rank the following items based on how negatively they impact your ability to provide ABA services to individuals with ASD on private insurance (1 = most negatively impacts, 8 = least negatively impacts):

_____ Availability of qualified staff
_____ Availability of office space
_____ Having to travel to clients
_____ Claims processing
_____ Ability to meet private insurers eligibility requirements
_____ Length of time to bill private insurers once eligible
_____ Reimbursement level
_____ Other (please list):

Q30 Please rank the following barriers to accessing ABA services that you hear from parents of individuals with ASD on private insurance (1 = most negatively impacts, 9 = least negatively impacts):

_____ Distance to provider
_____ Provider does not contract with insurer
_____ Insurer does not cover ABA services
_____ Provider does not provide services in the home
_____ Long waiting list
_____ Lack of information on covered services
_____ Difficulty in scheduling services/appointments with providers
_____ Financial burden
_____ Other (please list):

End of Block: Block 4

Appendix C. Endnotes

1 Eldevik, S., Hastings, R. P., Hughes, J. C., Jahr, E., Eikeseth, S., and Cross, S. (May 2009). Meta-Analysis of Early Intensive Behavioral Intervention for Children with Autism. Journal of Clinical Child & Adolescent Psychology, 38(3), 439-450.

2 Agency for Healthcare Research and Quality. (September 23, 2014). Comparative Effectiveness of Therapies for Children With Autism Spectrum Disorder. Clinical Research Summary. Retrieved November 27, 2018 from https://effectivehealthcare.ahrq.gov/topics/autism-update/clinician

3 Virués-Ortega, J. (2010). Applied behavior analytic intervention for autism in early childhood: Meta-analysis, meta-regression and dose–response meta-analysis of multiple outcomes. Clinical Psychology Review, 30(4), 387-399.

4 Mann, C. (July 7, 2014). Clarification of Medicaid Coverage of Services to Children with Autism. Informational Bulletin. Baltimore, MD: Center for Medicaid and CHIP Services. Retrieved October 15, 2018 from https://www.medicaid.gov/Federal-Policy-Guidance/Downloads/CIB-07-07-14.pdf.

5 Zeldovich, L. (May 9, 2018). *The evolution of 'autism' as a diagnosis, explained.* Spectrum News. Retrieved from https://www.spectrumnews.org/news/evolution-autism-diagnosis-explained/.

6 Roane, H. S., Fisher, W. W., & Carr, J. E. (2016). Applied Behavior Analysis as Treatment for Autism Spectrum Disorder. The Journal of Pediatrics, 175, 27–32. Retrieved November 2, 2018 from https://www.jpeds.com/article/S0022-3476(16)30071-3/pdf.

7 National Institute of Mental Health. (2018). Autism Spectrum Disorder. Retrieved November 28, 2018 from https://www.nimh.nih.gov/health/topics/autism-spectrum-disorders-asd/index.shtml.

8 Centers for Disease Control and Prevention. Risk Factors. Retrieved October 1, 2018 from https://www.cdc.gov/ncbddd/autism/data.html

9 Baio, J., Wiggins, L., Christensen, D. L., Maenner, M. J., Daniels, J., Warren, Z., Kurzius-Spencer, M., et al. (April 27, 2018). Prevalence of Autism Spectrum Disorder Among Children Aged 8 Years — Autism and Developmental Disabilities Monitoring Network, 11 Sites, United States, 2014. Atlanta, Georgia: Centers for Disease Control and Prevention.

10 Durkin, M.S., Maenner, M.J., Meaney, F.J., Levy, S.E., DiGuiseppi, C., Nicholas, J.S., et al. (July 12, 2010). Socioeconomic inequality in the prevalence of autism spectrum disorder: evidence from a U.S. cross-sectional study. PLoS One, 5(7), e11551. Retrieved October 1, 2018 from https://www.ncbi.nlm.nih.gov/pubmed/20634960

11 Masi, A., DeMayo, M. M., Glozier, N., Guastella, A. J. (April 2017). An Overview of Autism Spectrum Disorder, Heterogeneity and Treatment Options. Neuroscience Bulletin 33(2):183–193.

12 Baio, J., Wiggins, L., Christensen, D. L., Maenner, M. J., Daniels, J., Warren, Z., Kurzius-Spencer, M., et al. (April 27, 2018). Prevalence of Autism Spectrum Disorder Among Children Aged 8 Years — Autism and Developmental Disabilities Monitoring Network, 11 Sites, United States, 2014. Atlanta, Georgia: Centers for Disease Control and Prevention.

13 Dreyer, B. (February 6, 2016). AAP Statement on U.S. Preventive Services Task Force Final Recommendation Statement on Autism Screening. Itasca, IL: American Academy of Pediatrics. Retrieved October 31, 2018 from https://www.aap.org/en-us/about-the-aap/aap-press-

room/pages/AAP-Statement-on-US-Preventive-Services-Task-Force-Final-Recommendation-Statement-on-Autism-Screening.aspx.

14 Buescher, A. V. S., Cidav, Z., Knapp, M., Mandell, D. S. (August 2014). Costs of Autism Spectrum Disorders in the United Kingdom and the United States. JAMA Pediatrics 168(8):721-728.

15 Ibid.

16 Ganz, M. L. (April 2007). The Lifetime Distribution of the Incremental Societal Costs of Autism. JAMA Pediatric 161(4):343-349.

17 Buescher, A. V. S., Cidav, Z., Knapp, M., Mandell, D. S. (August 2014). Costs of Autism Spectrum Disorders in the United Kingdom and the United States. JAMA Pediatrics 168(8):721-728.

18 Ganz, M. L. (April 2007). The Lifetime Distribution of the Incremental Societal Costs of Autism. JAMA Pediatric 161(4):343-349.

19 Masi, A., DeMayo, M. M., Glozier, N., Guastella, A. J. (April 2017). An Overview of Autism Spectrum Disorder, Heterogeneity and Treatment Options. Neuroscience Bulletin 33(2):183–193.

20 Ibid.

21 Roane, H. S., Fisher, W. W., & Carr, J. E. (2016). Applied Behavior Analysis as Treatment for Autism Spectrum Disorder. The Journal of Pediatrics, 175, 27–32.

22 Masi, A., DeMayo, M. M., Glozier, N., Guastella, A. J. (April 2017). An Overview of Autism Spectrum Disorder, Heterogeneity and Treatment Options. Neuroscience Bulletin 33(2):183–193.

23 U.S. Department of Education. (2018). IDEA Section 618 Data Products: State Level Data Files. Retrieved from https://www2.ed.gov/programs/osepidea/618-data/state-level-data-files/index.html.

24 Masi, A., DeMayo, M. M., Glozier, N., Guastella, A. J. (April 2017). An Overview of Autism Spectrum Disorder, Heterogeneity and Treatment Options. Neuroscience Bulletin 33(2):183–193.

25 Behavior Analyst Certification Board. (2014). Applied Behavior Analysis Treatment of Autism Spectrum Disorder: Practice Guidelines for Healthcare Funders and Managers. Retrieved November 19, 2018 from https://www.bacb.com/wp-content/uploads/2017/09/ABA_Guidelines_for_ASD.pdf.

26 Roane, H. S., Fisher, W. W., & Carr, J. E. (2016). Applied Behavior Analysis as Treatment for Autism Spectrum Disorder. The Journal of Pediatrics, 175, 27–32.

27 Ibid.

28 Behavior Analyst Certification Board. (2014). Applied Behavior Analysis Treatment of Autism Spectrum Disorder: Practice Guidelines for Healthcare Funders and Managers. Retrieved November 19, 2018 from https://www.bacb.com/wp-content/uploads/2017/09/ABA_Guidelines_for_ASD.pdf.

29 Behavior Analyst Certification Board. (March 2018). BCBA/BCaBA Experience Standards. Retrieved November 19, 2018 from https://www.bacb.com/wp-content/uploads/BACB-bcbabcaba-Experience-Standards.pdf.

30 Ibid.

31 Amvik. (2018). Understanding the New Adaptive Behaviors CPT Codes. Retrieved February 6, 2019, from https://webaba.com/2018/10/09/2019-aba-cpt-codes/.

32 Association for Behavior Analysis International (October 2018). Adaptive Behavior Assessment and Treatment Code Conversion Table. Retrieved January 8, 2019 from https://www.abainternational.org/media/153784/cpt_code_conversion_10.9.18_ed.pdf

33 Kansas Department of Health and Environment. (2018). KMAP General Bulletin 18259: Mental Health/Autism Codes. Retrieved from https://www.kmap-state-ks.us/Documents/Content/Bulletins/18259%20-%20General%20-%20HCPCS_AU_MH.pdf.

34 Amendah, D., Grosse, S.D., Peacock, G., & Mandell, D.S. (2011). The economic costs of autism: A review. In Autism spectrum disorders (pp. 1347-1360). Oxford: Oxford University Press.

35 Gregory S. Chasson, Gerald E. Harris, & Wendy J. Neely (2007). Cost Comparison of Early Intensive Behavioral Intervention and Special Education for Children with Autism. Journal of Child and Family Studies, 16(3), 401-413.

36 Peters-Scheffer, N., Didden, R., Korzillius, H., & Matson, J. (2012). Cost comparison of early intensive behavioral intervention and treatment as usual for children with autism spectrum disorder in the Netherlands (2012). Research in Developmental Disabilities, 33(6), 1763-1772.

37 Chilson, M. (2016, September 17) Medicaid proposals could be boon or curse to Kansas kids with autism. Retrieved September 25, 2018 from https://www.cjonline.com/news/business/2016-09-17/medicaid-proposals-could-be-boon-or-curse-kansas-kids-autism

38 Marso, A. (2017, January 3). (2017). Kansans Struggle Through Maze of Autism Therapy Coverage. Retrieved September 25, 2018 from https://www.kcur.org/post/kansans-struggle-through-maze-autism-therapy-coverage-0#stream/0

39 Ibid.

40 Ostmeyer, K. (November 28, 2017). Continued Implementation Issues Faced by ABA Providers Working with Kansas Medicaid. Topeka, KS: Testimony presented to Robert G. (Bob) Bethell Joint Committee on Home and Community Based Services and KanCare Oversight. Retrieved from http://www.kslegislature.org/li_2018/b2017_18/committees/ctte_jt_robert_g_bob_bethell_joint_committee_1/documents/testimony/20171128_30.pdf

41 Wasmer, M. (November 28, 2017). Testimony to the Robert G. (Bob) Bethell Joint Committee on Home and Community Based Services and KanCare Oversight. Retrieved from http://www.kslegislature.org/li/b2017_18/committees/ctte_jt_robert_g_bob_bethell_joint_committee_1/documents/testimony/20171128_27.pdf

42 Leiker, J. (December 14, 2017). Testimony to Shawnee County Legislative Delegation.

43 Ovaska-Few, S. (2018, May 1). N.C.'s Shortage of Autism Therapists Leaves Some on Medicaid Waiting Months, Even Years. Retrieved November 1, 2018 from https://www.northcarolinahealthnews.org/2018/05/01/north-carolinas-shortage-of-autism-specialists-leaves-some-on-medicaid-waiting-months-even-years-for-help/

44 Johnson, S. (2018, April 30) Medicaid coverage of autism therapy to expand; provider shortage may still limit access. Retrieved November 1, 2018 from http://wvmetronews.com/2018/04/30/medicaid-coverage-of-autism-therapy-to-expand-provider-shortage-may-still-limit-access/

45 Olsen, D. (2017, August 15) State funding shortages still threaten autism services. Retrieved November 1, 2018 from https://www.sj-r.com/news/20170814/state-funding-shortages-still-threaten-autism-services

46 Owczarzak, B. Felton, J. (2017, August 11) MI experiencing shortage of autism resources. (2017). Retrieved November 1, 2018 from https://www.wnem.com/news/mi-experiencing-shortage-of-autism-resources/article_07ab3fc1-83d7-5d9d-824a-81388a216bb9.html

47 Association for Behavior Analysis International (October 2018). Adaptive Behavior Assessment and Treatment Code Conversion Table. Retrieved January 8, 2019 from https://www.abainternational.org/media/153784/cpt_code_conversion_10.9.18_ed.pdf

48 Eldevik, S., Hastings, R. P., Hughes, J. C., Jahr, E., Eikeseth, S., and Cross, S. (May 2009). Meta-Analysis of Early Intensive Behavioral Intervention for Children with Autism. Journal of Clinical Child & Adolescent Psychology, 38(3), 439-450.

49 Eldevik, S., Hastings, R.P., Hughes, J.C., Jahr, E., Eikeseth, S., Cross S. (September 2010). Using Participant Data to Extend the Evidence Base for Intensive Behavioral Intervention for Children with Autism. American Journal on Intellectual and Developmental Disabilities 115(5):381-405.

50 Wong, C., Odom, S. L., Hume, K., Cox, A. W., Fettig, A., Kucharczyk, S., et al. (2014). Evidence-Based Practices for Children, Youth, and Young Adults with Autism Spectrum Disorder. Chapel Hill, NC: The University of North Carolina, Frank Porter Graham Child Development Institute, Autism Evidence-Based Practice Review Group.

51 Virués-Ortega, J. (2010). Applied behavior analytic intervention for autism in early childhood: Meta-analysis, meta-regression and dose–response meta-analysis of multiple outcomes. Clinical Psychology Review, 30(4), 387-399.

52 Young, J., Corea, C., Kimani, J., Mandell, D. (March 9, 2010). Autism Spectrum Disorders (ASDS) Services: Final Report on Environmental Scan. Columbia, MD: IMPAQ International.

53 Maglione, M. A., Gans, D., Das, L., Timbie, J., Kasari, C. (November 2012). Nonmedical Interventions for Children With ASD: Recommended Guidelines and Further Research Needs. Pediatrics 130(2), S169-178.

54 Agency for Healthcare Research and Quality. (September 23, 2014). Comparative Effectiveness of Therapies for Children With Autism Spectrum Disorder. Clinical Research Summary. Retrieved November 7, 2018 from https://effectivehealthcare.ahrq.gov/topics/autism-update/clinician

55 Department of Health and Human Services. (1999). Mental Health: A Report of the Surgeon General. Retrieved November 7, 2018 from https://profiles.nlm.nih.gov/ps/retrieve/ResourceMetadata/NNBBHS.

56 Eldevik, S., Hastings, R. P., Hughes, J. C., Jahr, E., Eikeseth, S., and Cross, S. (May 2009). Meta-Analysis of Early Intensive Behavioral Intervention for Children with Autism. Journal of Clinical Child & Adolescent Psychology, 38(3), 439-450.

57 Young, J., Corea, C., Kimani, J., Mandell, D. (2010). Autism Spectrum Disorders (ASDS) Services: Final Report on Environmental Scan. Columbia, MD: IMPAQ International.

58 Virués-Ortega, J. (2010). Applied behavior analytic intervention for autism in early childhood: Meta-analysis, meta-regression and dose–response meta-analysis of multiple outcomes. Clinical Psychology Review, 30(4), 387-399.

59 Maglione, M. A., Gans, D., Das, L. Timbie, J., & Kasari, C. (2012). Nonmedical Interventions for Children With ASD: Recommended Guidelines and Further Research Needs. Pediatrics 130(2), S169-178.

60 Ibid.

61 Roane, H. S., Fisher, W. W., & Carr, J. E. (2016). Applied Behavior Analysis as Treatment for Autism Spectrum Disorder. The Journal of Pediatrics, 175, 27–32.

62 Maglione, M. A., Gans, D., Das, L., Timbie, J., Kasari, C. (November 2012). Nonmedical Interventions for Children With ASD: Recommended Guidelines and Further Research Needs. Pediatrics 130(2), S169-178.

63 Centers for Medicare and Medicaid Services. (June 2014). EPSDT - A Guide for States: Coverage in the Medicaid Benefit for Children and Adolescents. Retrieved November 13, 2018 from https://www.medicaid.gov/medicaid/benefits/downloads/epsdt_coverage_guide.pdf

64 Mann, C. (July 7, 2014). Clarification of Medicaid Coverage of Services to Children with Autism. Informational Bulletin. Baltimore, MD: Center for Medicaid and CHIP Services. Retrieved October 15, 2018 from https://www.medicaid.gov/Federal-Policy-Guidance/Downloads/CIB-07-07-14.pdf.

65 Children's Health Act of 2000. Pub. L. No. 106–310, 114 Stat. 1101. (2000).

66 Combating Autism Act of 2006. Pub. L. No. 109-416, 120 Stat. 2821 (2006).

67 Patient Protection and Affordable Care Act. Pub. L. No. 111-148, 124 Stat. 119 (2010).

68 Menendez, Robert. Letter to Secretary Kathleen Sebelius. (January 31, 2012).

69 Department of Health and Human Services. (February 25, 2013). Patient Protection and Affordable Care Act; Standards Related to Essential Health Benefits, Actuarial Value, and Accreditation. 78 Fed. Reg. 37, 12834-12872: Final Rule. Retrieved from https://www.govinfo.gov/content/pkg/FR-2013-02-25/pdf/2013-04084.pdf.

70 Combating Autism Reauthorization Act of 2011. Pub. L. No. 112-32, 125 Stat. 361 (2011).

71 Department of Defense. (June 16, 2014). Comprehensive Autism Care Demonstration. 79 Fed. Reg. 115, 34291-34296. Retrieved from https://www.govinfo.gov/content/pkg/FR-2014-06-16/pdf/2014-14023.pdf.

72 Ibid.

73 Autism Collaboration, Accountability, Research, Education, and Support Act of 2014. Pub. L. No. 113-157, 128 Stat. 1831.

74 Michael Potter and Brett Boyer v. Blue Cross Blue Shield of Michigan. Case No. 10-cv-14981. (2014). Retrieved from https://www.govinfo.gov/content/pkg/USCOURTS-mied-2_10-cv-14981/pdf/USCOURTS-mied-2_10-cv-14981-1.pdf

75 Rossman, M.H., Williamson, P.C. (2013, April 01) UPDATED: Federal Court Strikes Down Blue Cross of Michigan's Denial of Applied Behavior Analysis Therapy to Children with Autism. (2013). Retrieved December 3, 2018 from https://www.prnewswire.com/news-releases/updated-federal-court-strikes-down-blue-cross-of-michigans-denial-of-applied-behavior-analysis-therapy-to-children-with-autism-200943771.html

76 Ibid.

77 K.G., by and through his next friend, Iliana Garrido, I.D., by and through his next friend, Nilda Rivera, and C.C., by and through his next friend Rachelle Crawford, v. Elizabeth Dudek, in her official Capacity as Secretary, Florida Agency for Health Care Administration. Case No. 11-20684-CIV. (2013). Retrieved from https://www.govinfo.gov/content/pkg/USCOURTS-flsd-1_11-cv-20684/pdf/USCOURTS-flsd-1_11-cv-20684-0.pdf

78 Iliana Garrido, K.G. by and through his next friend, et al., v. Interim Secretary, Florida Agency for Health Care Administration, Elizabeth Dudek. Case No. 12-13785. (2013). Retrieved from https://cases.justia.com/federal/appellate-courts/ca11/12-13785/12-13785-2013-09-20.pdf?ts=1411126193

79 Mann, C. (July 7, 2014). Clarification of Medicaid Coverage of Services to Children with Autism. Informational Bulletin. Baltimore, MD: Center for Medicaid and CHIP Services. Retrieved October 15, 2018 from https://www.medicaid.gov/Federal-Policy-Guidance/Downloads/CIB-07-07-14.pdf.

80 Interagency Autism Coordinating Committee. (October 2017). Strategic Plan For Autism Spectrum Disorder. Retrieved from https://iacc.hhs.gov/publications/strategic-plan/2017/strategic_plan_2017.pdf

81 Kansas Legislature of 2007. (2007). Senate Bill No. 138. Retrieved from http://www.kansas.gov/government/legislative/bills/2008/138.pdf

82 Kansas Autism Task Force. (December 2007). Preliminary Report of the Kansas Autism Task Force to the Legislative Educational Planning Committee. Retrieved from http://www.aucd.org/docs/ncbddd/rtoi/KS_state%20of%20the%20state.pdf

83 Kansas Legislature of 2010. (2010). Senate Substitute for House BILL No. 2160. Retrieved from http://www.kansas.gov/government/legislative/bills/2010/2160.pdf

84 Kansas Department of Health and Environment. (May 30, 2012). Decision on Autism Pilot Program. Topeka, KS: Memorandum. Retrieved from http://www.kdheks.gov/hcf/hcc/MeetingMaterials/061112/5-AutismPilotProgram.pdf

85 Kansas State Employees Health Care Commission. (June 13, 2013). June 13, 2013 Minutes. Retrieved from http://www.kdheks.gov/hcf/hcc/MeetingMaterials/HCC091813/2-HCCMinutes061313.pdf

86 Ibid.

87 Kansas Legislature of 2014. (2014). House BILL No. 2744. Retrieved from http://www.kslegislature.org/li_2014/b2013_14/measures/documents/hb2744_enrolled.pdf

88 Ranney, D., & Bryan, T. (April 16, 2014). Brownback signs law expanding autism coverage. Topeka, KS: Kansas Health Institute. Retrieved October 22, 2018 from https://www.khi.org/news/article/brownback-signs-law-expanding-autism-coverage

89 Behavioral Science Regulatory Board. Assistant Behavior Analyst and Behavior Analyst Application.

Retrieved November 9, 2018 from https://ksbsrb.ks.gov/docs/default-source/forms/behavioral-analysts/aba_ba-application.pdf?sfvrsn=329c8b85_10.

90 Kansas Legislative Research Department. (2014). Insurance Coverage for Autism Spectrum Disorder; HB 2744. Topeka, KS: 2014 Summary of Legislation. Retrieved October 23, 2018 from http://www.kslegislature.org/li_2014/b2013_14/measures/documents/summary_hb_2744_2014.pdf.

91 Kansas Legislature of 2015. (2015). House Bill No. 2352. Retrieved from http://www.kslegislature.org/li_2016/b2015_16/measures/documents/hb2352_enrolled.pdf

92 Kansas Health Policy Authority. (December 2007). Kansas Medical Assistance Program Provider Manual: HCBS Autism Waiver. Retrieved from https://www.kmap-state-ks.us/Documents/Content/Provider%20Manuals/HCBS%20AU%2012142007%20STATE.pdf.

93 Kansas Department for Aging and Disability Services. (November 2018). October 2018 HCBS Monthly Summary. Retrieved from https://kdads.ks.gov/docs/default-source/csp/hcbs/monthly-waiver-program-participation-reports/2018/waiver-program-participation-report-10-15-18.pdf?sfvrsn=2f4f04ee_2

94 Kansas Department for Aging and Disabilities. (December 6, 2018). Personal Communication.

95 Kansas Health Policy Authority. (December 2007). Kansas Medical Assistance Program Provider Manual: HCBS Autism Waiver. Retrieved from https://www.kmap-state-ks.us/Documents/Content/Provider%20Manuals/HCBS%20AU%2012142007%20STATE.pdf.

96 Kansas Department of Health and Environment. (November 2017). Kansas Medical Assistance Program Fee-for-Service Provider Manual: HCBS Autism Waiver. Retrieved from https://www.kmap-state-ks.us/Documents/Content/Provider%20Manuals/HCBS%20AU_11292017_17209.pdf

97 Chilson, M. (2016, September 17) Medicaid proposals could be boon or curse to Kansas kids with autism. Retrieved from https://www.cjonline.com/news/business/2016-09-17/medicaid-proposals-could-be-boon-or-curse-kansas-kids-autism

98 Department of Health and Human Services. (January 19, 2017). Transmittal and Notice of Approval of State Plan Material. Retrieved from https://www.medicaid.gov/State-resource-center/Medicaid-State-Plan-Amendments/Downloads/KS/KS-16-015.pdf

99 Association for Behavior Analysis International (October 2018). Adaptive Behavior Assessment and Treatment Code Conversion Table. Retrieved January 8, 2019 from https://www.abainternational.org/media/153784/cpt_code_conversion_10.9.18_ed.pdf

100 Kansas Health Policy Authority. (December 2007). Kansas Medical Assistance Program Provider Manual: HCBS Autism Waiver. Retrieved from https://www.kmap-state-ks.us/Documents/Content/Provider%20Manuals/HCBS%20AU%2012142007%20STATE.pdf.

101 Haehn, B. (May 12, 2017). RE: KCART Training Informational Memo. Informational Memo. Topeka, KS: Kansas Department for Aging and Disability Services.

102 Haehn, B. (January 24, 2017). RE: Background Check Requirements. Informational Memorandum. Topeka, KS: Kansas Department of Aging and Disability Services.

103 Haehn, B. (May 12, 2017). RE: KCART Training Informational Memo. Informational Memo. Topeka, KS: Kansas Department for Aging and Disability Services.

104 Ibid.

105 Ostmeyer, K. (November 28, 2017). Continued Implementation Issues Faced by ABA Providers Working with Kansas Medicaid. Topeka, KS: Testimony presented to Robert G. (Bob) Bethell Joint

Committee on Home and Community Based Services and KanCare Oversight. Retrieved from http://www.kslegislature.org/li_2018/b2017_18/committees/ctte_jt_robert_g_bob_bethell_joint_committee_1/documents/testimony/20171128_30.pdf

106 Ibid.

107 Blue Cross Blue Shield of Kansas. (March 2018). Appendix H: Autism Guidelines. Retrieved from https://www.bcbsks.com/customerservice/Providers/Publications/professional/manuals/pdf/BPMappH_autism.pdf

108 Kansas Department of Health and Environment. (June 2016). General TPL Payment. Kansas Medicaid Assistance Program: Fee-for-Service Manual. Retrieved from https://www.kmap-state-ks.us/Documents/Content/Provider%20Manuals/General%20TPL_06302016_16107.pdf

109 Ibid.

110 Association for Behavior Analysis International (October 2018). Adaptive Behavior Assessment and Treatment Code Conversion Table. Retrieved January 8, 2019 from https://www.abainternational.org/media/153784/cpt_code_conversion_10.9.18_ed.pdf

111 The Kansas Center for Autism Research and Training. (2016). Synergy 2011-2015. Retrieved from http://kcart.ku.edu/~kcart/files/Lifespan-KCART-AnnualReport.pdf.

112 Kansas Department of Health and Environment. (December 14, 2018). Personal Communication.

113 Gregory S. Chasson, Gerald E. Harris, & Wendy J. Neely (2007). Cost Comparison of Early Intensive Behavioral Intervention and Special Education for Children with Autism. Journal of Child and Family Studies, 16(3), 401-413.

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