Behavioral Supports Report: Q3/FY23

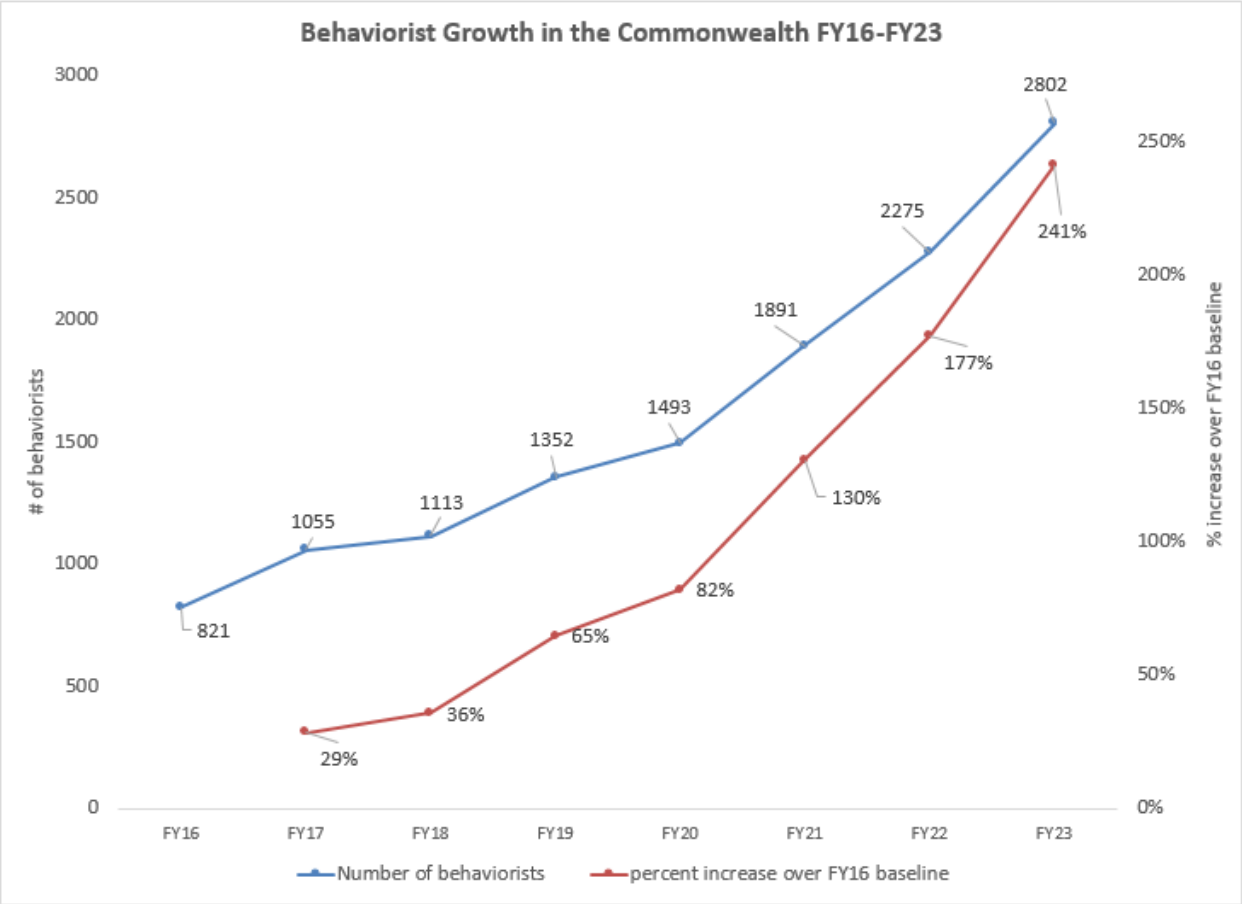
This report provides data and associated information on behavioral services provided in home and community-based settings through the Commonwealth of Virginia's Developmental Disability (DD) waivers, specifically services billed under therapeutic behavioral consultation. This report also includes information on behavioral resources, training, technical assistance, and quality assurance being shared with and provided to the behaviorist community.

Therapeutic behavioral consultation under DD waivers in Virginia (henceforth referred to as therapeutic consultation) can be considered "focused" behavior services. Focused behavioral interventions which are "problem focused" typically address specific behaviors for decrease such as aggression, self-injury, pica, property destruction, or other challenging behaviors. This type of behavioral intervention involves completion of a functional behavior assessment (FBA) and associated function-based behavior treatment planning. The behavior support plan, or BSP, incorporates the results of the FBA and will usually involve modifying specific aspects of the person's environment to reduce the likelihood that challenging behavior occurs, minimizing the provision of reinforcement for challenging behavior, and teaching new skills to replace the challenging behavior(s) (Hagopian et al., n.d.). Initial and ongoing training on BSP tactics for those implementing the BSP, as well as data collection and appropriate analysis and data-based decision-making, are critical to the success of such behavioral services delivered through therapeutic consultation.

Behaviorist provider growth

There are two primary provider types that provide therapeutic consultation in Virginia: Positive Behavior Support Facilitators (PBSF) and Board Certified Behavior Analysts®/Licensed Behavior Analysts (BCBA®/LBA). Also included in the data on the display on the following page are assistant level behavior analysts (BCaBA®/Licensed Assistant Behavior Analysts) as they also may bill this service under the supervision of Masters or Doctoral level Licensed Behavior Analysts. It is of great interest to the Department of Behavioral Health and Developmental Services (Department or DBHDS) that persons who are seeking therapeutic consultation are able to secure a behaviorist in a timely manner so that their needs can be met. In addition, a compliance indicator agreed to by the Commonwealth and the United States Department of Justice for implementation of the Settlement Agreement between the Commonwealth and the United States (Settlement Agreement) calls for growth in the number of behaviorists. It provides: *By June 2019, DBHDS will increase the number of Positive Behavior Support Facilitators and Licensed Behavior Analysts by 30% over the July 2015 baseline and reassess need by conducting a gap analysis and setting targets and dates to increase the number of consultants needed so that 86% of individuals whose Individualized Services Plan identify Therapeutic Consultation (behavioral support) service as a need are referred for the service (and a provider is identified) within 30 days that the need is identified.* (Settlement Agreement Section III.C.6.a.i-iii, filing reference 7.14.)

The graphical display below illustrates growth in the number of behaviorists in the Commonwealth of Virginia since Fiscal Year 2016, which speaks to the first component of this compliance indicator.



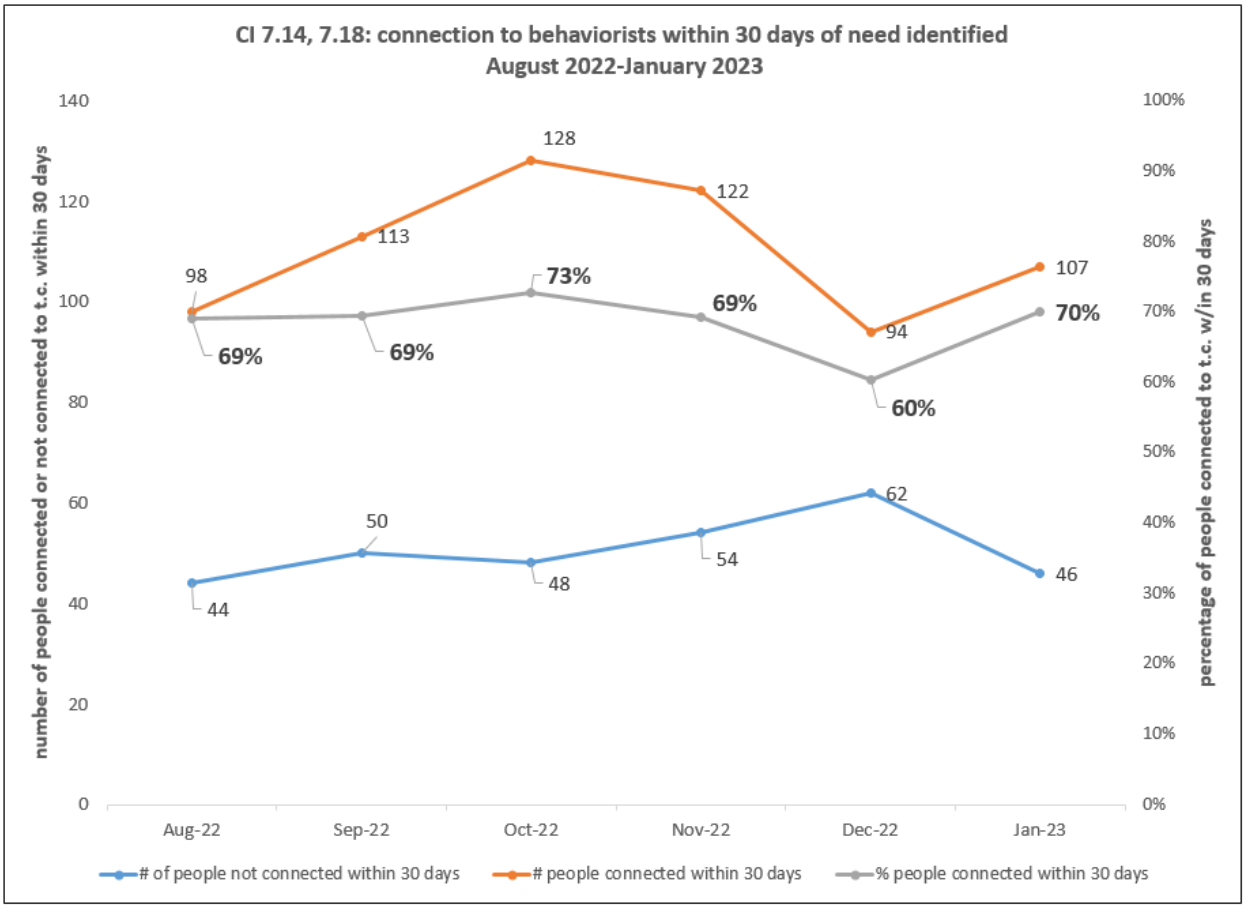
The blue line corresponds to the primary y-axis (# of behaviorists) while the orange line corresponds to the secondary y-axis (percent increase over FY16 baseline). A baseline of 821 behaviorists was established at the beginning of FY16 (July 2015); currently, the PBSF provider organization and the Virginia Department of Health Professions (which governs LBA and LABA licensure) report a combined total of 2,802 behaviorists, which represents a 241% increase over the July 2015 baseline. This is also an increase of 198 behaviorists since the time of the most recent report of this nature (FY23Q1). This exceeds the requirement of the compliance indicator for an increase in the number of PBSFs and LBAs by 30% over the July 2015 baseline. PBSFs account for 3% of the current number of behaviorists in Virginia; LBA/LABAs account for 97% of the current number of behaviorists in Virginia. Of note and as it relates to the specific language of "LBAs" in this indicator, there are currently 2,474 LBAs and 250 LABAs licensed in the Commonwealth. If only LBAs and PBSFs (of which there are 78) are included in behaviorist growth data, the percent increase calculates to an approximate 211% increase over the July 2015 baseline.

Connecting people in need to therapeutic behavioral consultation

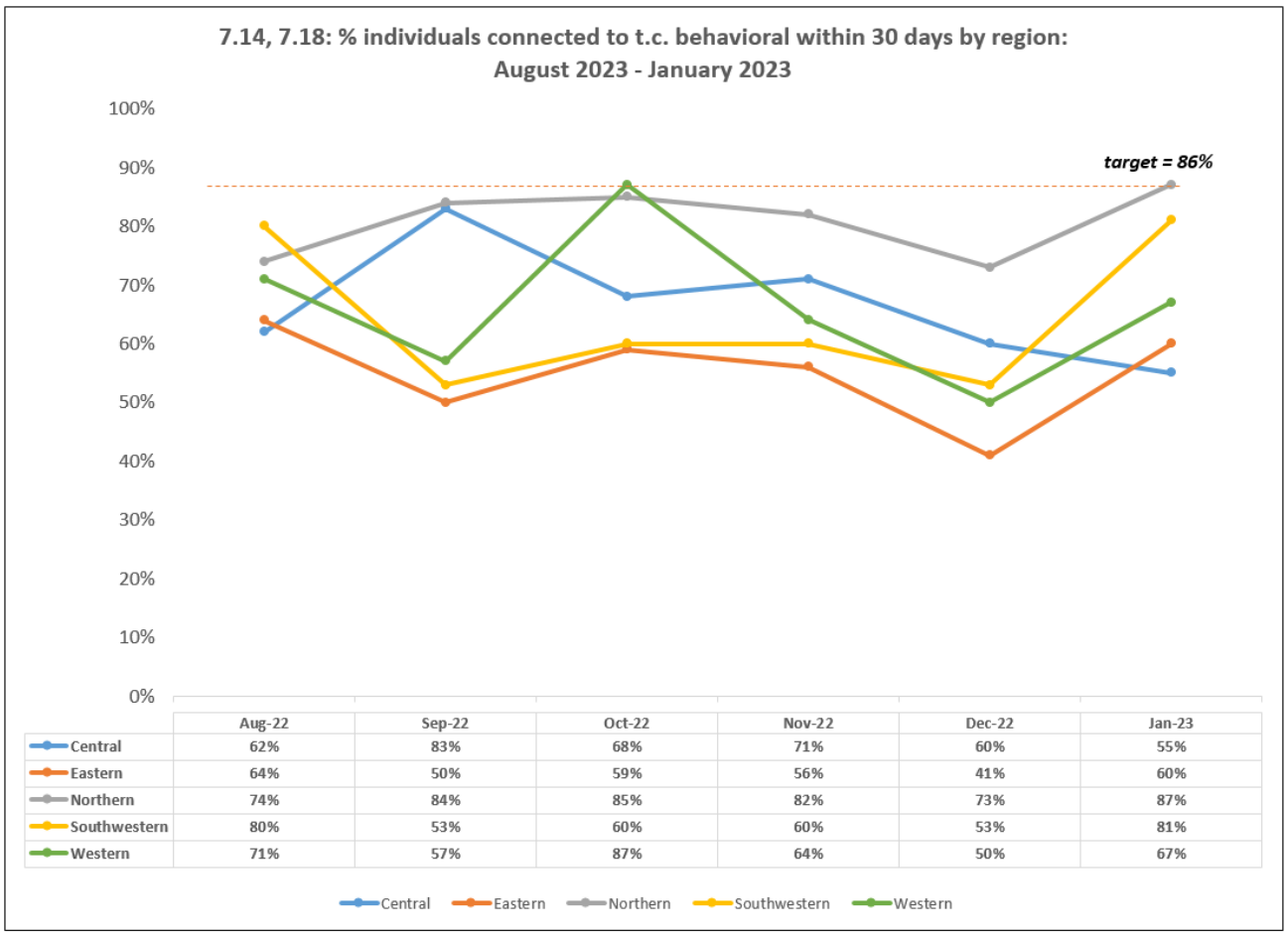
Beginning in July 1, 2020, DBHDS launched tracking to determine the number of individuals identified during the ISP planning process as being in need of therapeutic consultation. In the FY22Q1 report, DBHDS began reviewing and displaying data on a monthly basis to indicate the number of people connected to this service within 30 days, the number not connected within 30 days, and the overall percentage connected within 30 days. Starting in the FY23Q1 report, DBHDS began providing data both on connecting individuals in need of this service to this service within the required 30 days, as well as on individuals that were connected to a behaviorist prior to the date of their ISP meeting and remained connected after their ISP meeting (e.g. the individual had an updated service authorization for therapeutic behavioral consultation within 30 days of the ISP meeting). The inclusion of people whose therapeutic behavioral services are "carrying over" from one ISP year to the next (along with people that did not have services and needed a referral) is a better reflection of the work of support coordinators to connect people with a need for this service to it within the required timeframe. This further provides a more complete picture about consumer need and provider capacity for this service.

Two graphical displays are provided on the subsequent two pages of this report. The first display (page 4) provides data from August through January 2023 on the following: 1) number of individuals that needed this service and were connected to a behaviorist within 30 days (orange line); 2) the number of individuals that needed the service and were not connected within 30 days (blue line); and 3) the overall percentage of individuals connected to a behaviorist within 30 days (gray line). This first graph reflects performance across all regions of the state combined. Between August and January 2023, approximately 69% of people needing this service were connected within 30 days. This is an improvement from the FY23Q1 report, when between February and July 2022, approximately 64% of people needing this service were connected within 30 days. These data also reflect improvement from the data reported in the FY22Q3 report, when approximately 60% were connected within 30 days between September and January 2022.

The graphs that follow are relevant to the second component of compliance indicator 7.14, as well as the following compliance indicator: *Within one year of the effective date of the permanent DD Waiver regulations, 86% of those identified as in need of the Therapeutic Consultation service (behavioral supports) are referred for the service (and a provider is identified) within 30 days.* (Settlement Agreement Section III.C.6.a.i-iii, filing reference 7.18.)



The graph on the following page (page 5) provides regionalized performance on the percentage of individuals connected within 30 days across the same period as the graph above. The red dashed horizontal line represents the target performance of 86%. Two of the regions have met the 86% benchmark once during the most recent review period. The western region met this benchmark in October, while the northern region met this benchmark in January 2023. The northern and central regions have the most people needing services, followed by the eastern region of the state. A visual analysis of the graph suggests that the northern region's performance generally is the most stable and overall has an ascending trend between August and January. There is more variability in performance across the other regions, and at the time of this report, four out of five regions (exception being the central region) had performance trending in the desirable direction as of January 2023.



The table below supplements the visual display above by providing raw data on the number of people connected and not connected to services within 30 days from August through January 2023.

Table 1: Raw data on people connected and not connected to therapeutic consultation within 30 days, 8/22-1/23

	Aug # NO connect	Aug # YES connect	Sept # NO connect	Sept # YES connect	Oct # NO connect	Oct # YES connect	Nov # NO connect	Nov # YES connect	Dec # NO connect	Dec # YES connect	Jan # NO connect	Jan # YES connect
Central	16	26	8	38	18	39	14	35	19	28	18	22
Eastern	9	16	16	16	12	17	14	18	13	9	12	18
Northern	10	28	7	36	8	47	9	41	15	41	5	34
South-Western	4	16	9	10	8	12	8	12	8	9	5	21
Western	5	12	10	13	2	13	9	16	7	7	6	12
TOTAL	**44**	**98**	**50**	**113**	**48**	**128**	**54**	**122**	**62**	**94**	**46**	**107**

Information on people connected within any timeframe

DBHDS has improved data collection to identify if an individual was connected to a behaviorist beyond 30 days. The following table outlines connection to this service without the 30 day metric in place (e.g. the number and percentage of people connected within any timeframe, as of the date the data were reviewed).

Table 2: Data on people connected or not connected to therapeutic consultation, regardless of timeframe

	Additional # of people connected beyond 30 days	Total # connected (any timeframe)	Total # not connected (any timeframe)	Total % connected (any timeframe)	Range and average of people connected beyond 30 days
August 2022	10	108	34	76%	31-140 days, avg. 69 days
September 2022	11	124	39	76%	34-128 days, avg. 70.5 days
October 2022	3	131	45	74%	45-144 days, avg. 81.3 days
November 2022	14	136	40	77%	40-132 days, avg. 95 days
December 2022	16	110	46	71%	31-98 days, avg. 69 days
January 2023	9	116	37	76%	31-99 days, avg. 62 days

Service utilization and people on DD waivers using ABA

As part of a curative action surrounding CI 29.21, and as a corollary some components of CI 7.20, DBHDS has worked with the Department of Medical Assistance Services (DMAS) to obtain utilization data for people that have been connected to therapeutic consultation. The relevant language of the curative action related to service utilization is as follows:

DBHDS will use the data from CI 7.20, part 1, to identify the number and percent of people with behavioral support needs who received Therapeutic Consultation, as well as the number and percent of those individuals who never received Therapeutic Consultation. Specifically, DBHDS will report, pursuant to CI 7.20, part 1, and CI 29.21 the following: Out of the individuals identified as needing Therapeutic Consultation (behavioral supports) in the ISP assessments, how many received the service. This measure is not limited to whether services were authorized. Only individuals who actually receive Therapeutic Consultation services will be included in the numerator of this measure.

In the most recent report (FY23Q1), DBHDS provided data on the number of individuals that had a billing claim filed for therapeutic consultation and the number of individuals that were authorized for therapeutic consultation that had no claims filed.

In this report, DBHDS is able to provide the number and percent of people with behavior support needs, as part of their ISP, who received therapeutic consultation. Additionally, DBHDS is able

to provide the number and percent of people that had behavior support needs that did not receive therapeutic consultation. In other words, the data that follows provides information about if the service authorization resulted in (or did not result in) service delivery via comparison to DMAS service utilization/billing claims data. The table below provides this information for the entirety of fiscal year 2022. Providers have one full year to bill Medicaid, so it is possible that some claims not yet filed from FY22 could be filed in the future.

Table 3: Service utilization for therapeutic consultation, FY22

	# and % that did receive therapeutic consultation	# and % that did not receive therapeutic consultation
FY22	624, 58%	451, 42%

Additionally, as part of this curative action, DBHDS obtained from DMAS on the number of active members enrolled in the DD waivers that also received ABA through the state plan option. There were 247 active members currently enrolled in DD waiver benefit who also received Applied Behavioral Analysis (ABA) services from 7/1/22 through 12/31/22.

Root causes

The following information in this "Root Causes" section of the report was also provided in the FY23Q1 report. Updated information in the "Root Causes" section is italicized and noted with an update for 4/2023.

There are most likely numerous factors that have contributed to not yet achieving the performance of 86% of individuals being referred for the service with a provider identified within 30 days. Previous versions of this report have outlined DBHDS' work to improve real-time data collection, and this report has noted the important inclusion of persons that carry services over from one ISP year to the next, of which were not previously included in these data. Additionally, previous reports have outlined other efforts with important stakeholders such as CSBs and professional provider organizations, along with continued work to increase provider enrollment for this service.

In the 20th Report the Court, the reviewers for crisis and behavioral services indicated that DBHDS had not completed a root cause analysis, nor a gap analysis with targets and dates to increase performance. In October 2021, the Performance Diagnostic Checklist-Human Services (Carr, Wilder, Majdalany, Mathisen, & Strain, 2013), or PDC-HS, was used to assess these related indicators and as is now being provided in this report to speak to the reviewers' request (with updated action results as of October 2022). The Performance Diagnostic Checklist (Austin, 2000) and the PDC-HS are organizational behavior management (OBM) assessment tools are used in business settings to assess the functional determinants of performance. An informant-based tool, the PDC (and PDC-HS) is broken down into four categories of questions, with the categories of the PDC-HS as follows: training; task clarification and prompting; resources, materials and processes; and performance consequences, effort, and competition. When the "function(s)" of performance deficits are identified, a function-based intervention can

be applied to improve performance and in turn help to reach business goals. An OBM approach to solving business problems focuses on obtaining organizational results (e.g. mission, business goals, desired outcomes) through examination of employee behavior(s) and adjustment of variables that contribute to poor (or desirable) performance. A variation of the PDC-HS was completed by a DBHDS Board Certified Behavior Analyst® with subject matter expertise in this particular business problem who also has experience in the use of organizational behavior management assessment tools and associated solutions.

The performance of support coordinators (SC) as a group were the primary consideration for the conceptualization of applicable questions from the PDC-HS, as support coordinators hold the responsibility of "connecting" a person in need to this service, and DBHDS was conceptualized as the "supervisor" that could strive to adjust the overall environment for support coordinators via antecedent and consequence interventions. The results of the variation of the PDC-HS suggest the following to be potential maintaining variables that are contributing to this business opportunity, and it is noted to the reader that several of the possible contributing variables cross different performance categories (e.g. resources to obtain a behaviorist also bleeds into the response effort required on the part of a SC to find a behaviorist):

Training: As SC's play the role of connecting individuals in need to services, they need be aware that there are different guilds of behaviorists that are available to deliver the service, and they need to know how to access behaviorists in their regions. Previously, it may have been unclear if SC's were aware of the Settlement Agreement requirement for timely connection to services as outlined in the related compliance indicators or could describe the targets. It is also known that SC turnover is a factor that can impact the institutional knowledge base in a CSB.

- Update 10/2022: As of 7/1/21, Exhibit M of the Performance Contract between DBHDS and CSBs outlines requirements to complete required training in the Commonwealth's learning management system, which includes information about timely connectivity and where to find behaviorists. Exhibit M also outlines requirements for timely referrals and assisting individuals with getting onto multiple waitlists if services are not yet immediately available. The expectation is reviewed by DBHDS staff at provider and support coordinator roundtables each quarter. WaMS auto-populates a message to connect the person to services within 30 days if the need for a referral is indicated at the ISP meeting. At this time, adequate instruction on expectations (antecedents) have been and will continue to be provided to support coordinator through multiple avenues.
- *Update 4/2023: Information on SC completion of required training is provided later in this report (see page 13). Exhibit M requirements remain in place for the current fiscal year and will remain so in the upcoming fiscal year. DBHDS continues to provide information about these compliance indicators and related resources at support coordinator and provider roundtables and in communications such as the List Serv. Numerous instructions on the requirements of these compliance indicators remain in place.*

Task Clarification & Prompting: Similar to training, SC's (or other critical CSB personnel) may not have been previously aware of the desired performance targets (compliance indicators) as well as the associated scrutiny on these related compliance indicators.

- Update 10/2022: the updates for the "training" section above are also applicable to the "task clarification and prompting" section. Anecdotally, during dialogue surrounding data sharing, several CSB staff have shared that internal lists of behaviorists that are providing services in their catchment area are used by SCs, which may be considered a type of job aid for this task (with that noted, this also may be possibly limiting the scope of providers that are accessed based on the frequency of updates to these internal lists used by CSBs).
- *Update 4/2023: DBHDS has launched a new section of the Behavioral Services webpage that includes a search engine for providers of therapeutic behavioral consultation. This went live in April 2023 and information was provided to the community on this resource via the List Serv. DBHDS plans to highlight this in upcoming support coordinator and provider roundtables, in communication with DD Directors and CSB Executives, and in the upcoming ABA Snippet in the Office of Integrated Health's monthly newsletter.*

Resources, Materials, & Processes: At an individual CSB level and for each CSB, it is not possible for DBHDS to determine every unique process that is working or is disconnected that may be impacting SC performance. It is also not possible to determine the true value (number) of individual behaviorists that are delivering this service, primarily because the service authorization and utilization data the DBHDS has available ties into the tax identifier or overarching NPI number for a provider group or organization, as opposed to each individual behaviorist delivering services under that provider's operational umbrella. With that noted, DBHDS has data available on the overall number of provider group organizations that are delivering this service, and can link that information into the CSB that each individual receiving services hails from. This can be paired with the regionalized data presented above in this report to give an estimation of regions where provider growth needs the most improvement (see more information in "gap analysis" section that follows the PDC-HS results). Additionally, as a part of discussions with CSBs in data sharing related to these compliance indicators, DBHDS has learned that many CSBs keep and use their own internal roster of behaviorists as opposed to accessing available search engines/provider directories that may be more updated in real time. In discussions with some current providers that are enrolled to provide this service, DBHDS has learned that some providers that are enrolled are not receiving referrals and/or are having challenges connecting with CSBs to advertise their ability to deliver the service. It is suspected, based on anecdotal information, that some support coordinators refer only to particular provider groups or guilds of behaviorists over another. DBHDS has also learned that some new providers have faced challenges with enrollment to become a new provider with DMAS.

- Update 10/2022: A key resource/material is the availability of behaviorists and support coordinator knowledge to be able to access them. Over the past several years, DBHDS has worked actively to advertise this service via an array of different modalities and assists interested providers with provider enrollment by connecting them with a DBHDS Community Resource Consultant, as well as DMAS staff if needed. DMAS has been an integral partner in this effort to shepherd new providers through the enrollment process. Since FY17, there has been an approximate 37.5% increase in the number of providers enrolled in this service, from 48 providers in FY17 to 66 providers in FY22. Since the

last report of this nature, DBHDS added this service into the "jump start" funding program as a means to attract and assist more behaviorists in enrolling into this service. DBHDS continues to introduce new or expanding behavioral providers to CSBs via email introduction whenever the opportunity presents. DMAS and DBHDS have worked together to substantially increase rates for this service, with increases between 22 and 31% above the previous rate increase (rate increase percentages vary across provider type and location of provider's operations within the state). DBHDS has a survey set up to launch in October 2022 with the Virginia Association for Behavior Analysis (VABA) to attract more behaviorists to this service. DBHDS is providing a training in partnership with VABA in October 2022 about navigating this service from an administrative standpoint which is intended for aspiring and current therapeutic behavioral consultants alike. Lastly, while it is important to continue to work to increase the number of behaviorists enrolling in this service, SCs may benefit from one singular, easy-access resource that lists all behaviorists that provide this service (this is described more in the following section, which relates to response effort to complete this task, or in other words, how challenging it is or how much time and effort it takes a SC currently to search for behaviorists and then facilitate a referral).

- *Update 4/2023: DBHDS completed a training with VABA in October 2022; more details are included later in the section on "Behavioral Resources". As noted above, DBHDS launched a search engine resource to help locate behaviorists for this service in April 2023. VABA completed a survey related to determining if practitioners were interested in expanding to other areas of the state or if new practitioners wanted to enroll in the service. The survey was provided to DBHDS, but consisted of all anonymous responses, so DBHDS was not able to contact survey participants directly. Several providers have reached out to DBHDS to enroll in the service since the survey and/or to learn about how to connect with CSBs in other regions to expand their service reach. At this time, the DBHDS Jump Start program has provided funding for two therapeutic behavioral consultation providers to start or enhance their programs, and is working with an additional two at the time of this report. There number of overall providers is now 72 (previously 66 as noted in the last report).*

Performance Consequences, Effort, & Competition: While it is not possible to ascertain the level of supervision that each individual SC receives at each CSB as it relates to connecting individuals in need to behaviorists in a timely manner, or even if supervision (performance consequences) are a contributing variable for each SC, it is well established that many support coordinators across the Commonwealth have large caseloads with numerous competing priorities beyond connecting people in need to this particular service.

- Update 10/2022: From the standpoint of feedback provided by DBHDS to the CSB leadership, DBHDS has delivered feedback in the form of providing lists of individuals to each CSB (after data pulls) that are not connected to behaviorists, along with links to access behaviorists. Prior to DBHDS setting up a data system where these data could be reviewed monthly, the CSBs were not receiving "real time" data on their performance in connecting individuals to behaviorists. Sharing data is intended to be a means to foster assistance and resource sharing with CSBs. In acknowledgment of the competing

priorities for SC's, as well as the current lack of one centralized repository to search for behaviorists, DBHDS has crafted a survey that was sent to all behavioral providers for this service in September 2022; the results of this survey will be used to minimally create a provider directory, or possibly a search engine, for this service that will be housed on the DBHDS website and can be searched regionally, based on telehealth/face to face modalities, based on provider pedigree, languages spoken, etc. DBHDS expects this to be completed and then shared with providers and CSBs by November 2022, and in the future the survey will be updated several times per year to account for new behaviorists to this service. These survey results will most likely land on a new webpage specific to behavioral services that DBHDS created in FY23Q1 and is available now. Lastly, starting in November 2022, DBHDS Community Resource Consultants will begin contacting CSBs directly to provide assistance for any person that data indicates did not have a service authorization at the time of data review for follow up assistance.

- *Update 4/2023: DBHDS is continuing to share information with CSB leadership when providers have expanded or have new availability within a CSB's catchment area or overall region. DBHDS explored the possibility in November 2022 of having CRCs contact CSBs to provide individualized assistance in connecting people to services, but determined that with current CRC resources and responsibilities that CRC's would be able to assist by helping CSBs use the new search engine to locate providers. DBHDS launched the new search engine for therapeutic behavior consultation in April 2023. DBHDS has received initial positive correspondence from providers noting that this appears to be a helpful resource. Though there are numerous variables that may impact performance, it is hoped that over time this resource will contribute to performance improvement.*

Gap analysis and improvement targets:

In the FY23Q1 report, DBHDS completed a gap analysis based data for individuals not connected between April and July 2022. See the FY23Q1 report for the detailed gap analysis.

In the FY23Q1 report, DBHDS also suggested targets for the number of behaviorists needed in each region to serve those not connected to services (this information is available below in table 4). While DBHDS is committed to continuing to grow providers for this service and working to ensure timely connection to providers for people that need the service, it is important to note that timely access to behavior analysis services is not an issue germane solely to Virginia. It is challenging to locate peer-reviewed information on waitlist or timely availability for behavior analysis services; however, a small study in Michigan in 2021 indicated that the average waitlist time for such services for children was 5.66 months (Briggs & Peterson, 2021). Though the field of behavior analysis has seen tremendous growth over the past several years, with an approximate increase of 65% of BCBAs® nationwide between 2018 and 2021, inequitable access to providers is prevalent in most areas of the country (Yingling, Ruther, & Dubuque, 2022). Though precipitous growth in the profession has occurred, the per capita supply of Board

Certified Behavior Analysts® is below recommendations in 49 states (Zhang & Cummings, 2020).

At the time of the last report, DBHDS noted that 66 providers were available to deliver this service. The previous report also noted that it is not possible for DBHDS to determine the exact number of individual behaviorists that each provider employs. A provider could consist of just one behaviorist, while another provider could have ten behaviorists on staff that deliver this service. With that noted, DBHDS can continue to provide information on "providers" as tied into the tax identifier for the overarching provider agency, and at the time of this report, there are now 72 providers available to deliver this service. Below is the estimated number of behaviorists needed per region and associated goal with target date for growth.

Table 4: (From FY23Q1 report, no changes in FY23Q3): Estimation of individual behaviorists needed to address gaps per region with target date

	Total # not connected April – July 2022	Mean not connected per month	Possible number of additional behaviorists needed to address need of mean not connected per month (based on 5 persons to 1 behaviorist)	Target date for behaviorist growth in region
Central	50	12.5	3	June 2023
Eastern	39	9.75	2	June 2023
Northern	44	11	3	June 2023
Southwestern	17	4.25	1	June 2023
Western	35	8.75	2	June 2023

Expectations for behavioral programming and quality assurance

On 3/31/2021, the permanent regulations for therapeutic consultation behavioral services went into effect (note: DBHDS provided until 7/1/2021 for providers to come into full accordance with the expectations of the regulations). These regulations outline basic expectations for the content areas of behavior support plans and associated expectations for the service (Settlement Agreement Section III.C.6.a.i-iii, filing reference 7.17: *The permanent DD waiver regulations will include expectations for behavioral programming and the structure of behavioral plans*). DBHDS has also provided associated *Practice Guidelines for Behavior Support Plans* to the community, behaviorists, and CSBs, which relate directly to a compliance indicator for Section III.C.6.a.i-iii (filing reference 7.15) that provides as follows: *The Commonwealth will provide practice guidelines for behavior consultants on the minimum elements that constitute an adequately designed behavioral program, the use of positive behavior support practices, trauma informed care, and person-centered practices.* As noted in past reports, DBHDS launched a training in the Commonwealth of Virginia's Learning Management System for support coordinators that reviews the *Practice Guidelines* and also outlines the components of behavior support planning tied into regulations such that support coordinators can observe to determine if key hallmarks are being implemented for individuals that receive this service (Settlement Agreement Section III.C.6.a.i-iii, filing reference 7.16: *The Commonwealth will provide the*

practice guidelines and a training program for case managers regarding the minimum elements that constitute an adequately designed behavioral program and what can be observed to determine whether the plan is appropriately implemented. This compliance indicator was found to be "met" in the 20th review period, when 755 CSB staff members had taken this training through February 2022. As of early March 2023, 979 CSB staff members have taken this training. Based on service capacity/staffing data provided to CSBs to DBHDS, 690 case managers should access and complete the training. The increase in trainees is likely a reflection of new hires/turnover within CSBs/BHA across the Commonwealth since the launch of this training in FY21, as well as supervisory positions such as DD Directors completing the training.

DBHDS has created a scoring tool that determines the adherence of behavior support plans to the *Practice Guidelines for Behavior Support Plans*. This Behavior Support Plan Adherence Review Instrument (BSPARI) utilizes a weighted scoring system that provides a score for each behavior support plan content area and its associated minimum elements as outlined in the *Practice Guidelines*. The BSPARI (and its associated Scoring Instructions Guide and Feedback Process) has been reviewed and approved by the DOJ expert reviewer for behavioral services and received input from members of Virginia's behavioral community with extensive experience in delivering therapeutic consultation behavioral services. The BSPARI was also reviewed by a researcher with numerous peer-reviewed publications in behavior analysis with experience creating behavior analysis assessment tools. Since the initial approval of the BSPARI and related Scoring Instructions Guide and Feedback Process by the DOJ reviewer for behavioral services, DBHDS made a few key updates to the tool, which are as follows:

> 1) The BSPARI includes automated scoring using visual basic coding, which improves the reliability of the tool, as it is not possible for a reviewer to make an error in scoring transfer (e.g. the reviewer does not have to reference the Scoring Instructions Guide document as the BSPARI has automated scoring embedded). Required behavior plan element sections are automatically scored and color-coded in green if all minimum elements required for the highest point valuation are present, and coded in red if any elements are absent and the highest point valuation is not achieved.
>
> 2) The BSPARI has a resource tab with references to the regulations, *DBHDS/DMAS Practice Guidelines for Behavior Support Plans*, and most importantly for quality improvement, to the professional literature (e.g. peer reviewed publications, seminal books/chapters, and related web resources). The resource tab has embedded coding that tie into the minimum elements that are reviewed via the BSPARI, such that when a reviewer marks any area as absent, the resource tab will highlight that element in red and provide relevant resources, including hyperlinks to related literature available on the web.

DBHDS is using the BSPARI to review behavior support plans (and associated documentation) authored under the therapeutic consultation service, and is additionally reviewing support coordinator assessment on the appropriate implementation of behavioral programming. This corresponds to parts 4 and 5 of the following compliance indicator: *DBHDS will implement a quality review and improvement process that tracks authorization for therapeutic consultation services provided by behavior consultants and assesses: (1) the number of children and adults*

with an identified need for Therapeutic Consultation (behavioral supports) in the ISP assessments as compared to the number of children and adults receiving the service; (2) from among known hospitalized children and adults, the number who have not received services to determine whether more of these individuals could have been diverted if the appropriate community resources, including sufficient CTHs were available; (3) for those who received appropriate behavioral services and are also connected to REACH, determine the reason for hospitalization despite the services; (4) whether behavioral services are adhering to the practice guidelines issued by DBHDS; and (5) whether Case Managers are assessing whether behavioral programming is appropriately implemented (Settlement Agreement Section III.C.6.a.i-iii, filing reference 7.20).

As noted above, the BSPARI uses a weighted scoring system, with 40 total weighted points possible. Behavioral programming is determined to be adhering to the *Practice Guidelines*, and overall adequate, if 34 points are obtained on the BSPARI (which equates to a score of 85%). Adequacy of behavioral programming also addresses a related compliance indicator (in addition to 7.20, noted above), which reads as follows: *At least 86% of people with identified behavioral support needs are provided adequate and appropriately delivered behavioral support services* (Settlement Agreement Section V.B, filing reference 29.21). Reviews are being conducted by DBHDS staff that are Licensed and Board Certified Behavior Analysts® with extensive experience in the assessment and treatment of challenging behavior and positive behavior supports across a variety of settings. At the time of this report, 344 behavior plans and related programming have been reviewed by DBHDS since commencement of this quality review process; 100 sets of behavior plans were reported out in the FY22Q3 report, 150 sets of behavior plans were outlined in the FY23Q1 report, and 94 sets of behavior plans are included in this report.

Feedback sessions are provided to behaviorists by DBHDS reviewers based on the results of the BSPARI. Prior to the reviews, the behaviorist is provided with copies of all BSPARIs that will be reviewed via an encrypted email. These sessions occur via a secure web conferencing system and include review of the BSPARI, review of resources, and an opportunity for the behaviorist to ask questions about the BSPARI results and resources. DBHDS also seeks out feedback that behaviorists have about the tool, the service authorization process, or connection to individuals in need of services during these meetings. At the time of this review, DBHDS is not requiring a feedback session if performance for a behaviorist on all BSPARIs reviewed are at or above 34 out of 40 points; instead the BSPARIs are sent in secure email with trend analysis for any improvement areas. As reviews progress over time, it would be expected that minimum elements that are absent are addressed and improved upon by behaviorists, and that subsequent behavioral programming would have improved scores in future reviews using the BSPARI. The first table that follows (*Table 6*) provides scores information on BSPARI reviews conducted as reported out in the FY22Q3 Behavioral Supports Report. The second table (*Table 7*) provides BSPARI data from late FY22Q3 through the end of FY23Q1. The third table (*Table 8*) has the BSPARI data from FY23Q2 and FY23Q3.

Table 6: BSPARI reviews conducted late FY22Q1 through FY22Q3

# of BSPARIs reviewed	Mean points score and % on BSPARIs	Median points score and % on BSPARI	Score ranges, mode	BSPARIs scoring at least 34 out of 40 points (85%)	BSPARIs scoring at least 30 out of 40 points (75%)	BSPARIs reviewed with feedback provided to behaviorist
100	25.9 points, ~65%	28 points, ~70%	Range of scores: 34 (4 to 38) Mode = 31, 32	13%	40%	53%

Table 7: BSPARI reviews conducted mid FY22Q3 through late FY23Q1

# of BSPARIs reviewed	Mean points score and mean % on BSPARIs	Median points score and % on BSPARI	Score ranges, mode	BSPARIs scoring at least 34 out of 40 points (85%)	BSPARIs scoring at least 30 out of 40 points (75%)	BSPARIs reviewed with feedback provided to behaviorist
150	29.8 points, ~74%	31 points, ~78%	Range of scores: 34 (6 to 40) Mode = 34	61 out of 150, ~41%	91 out of 150, ~61%	68%

Table 8: BSPARI reviews conducted from FY23Q2 through FY23Q3

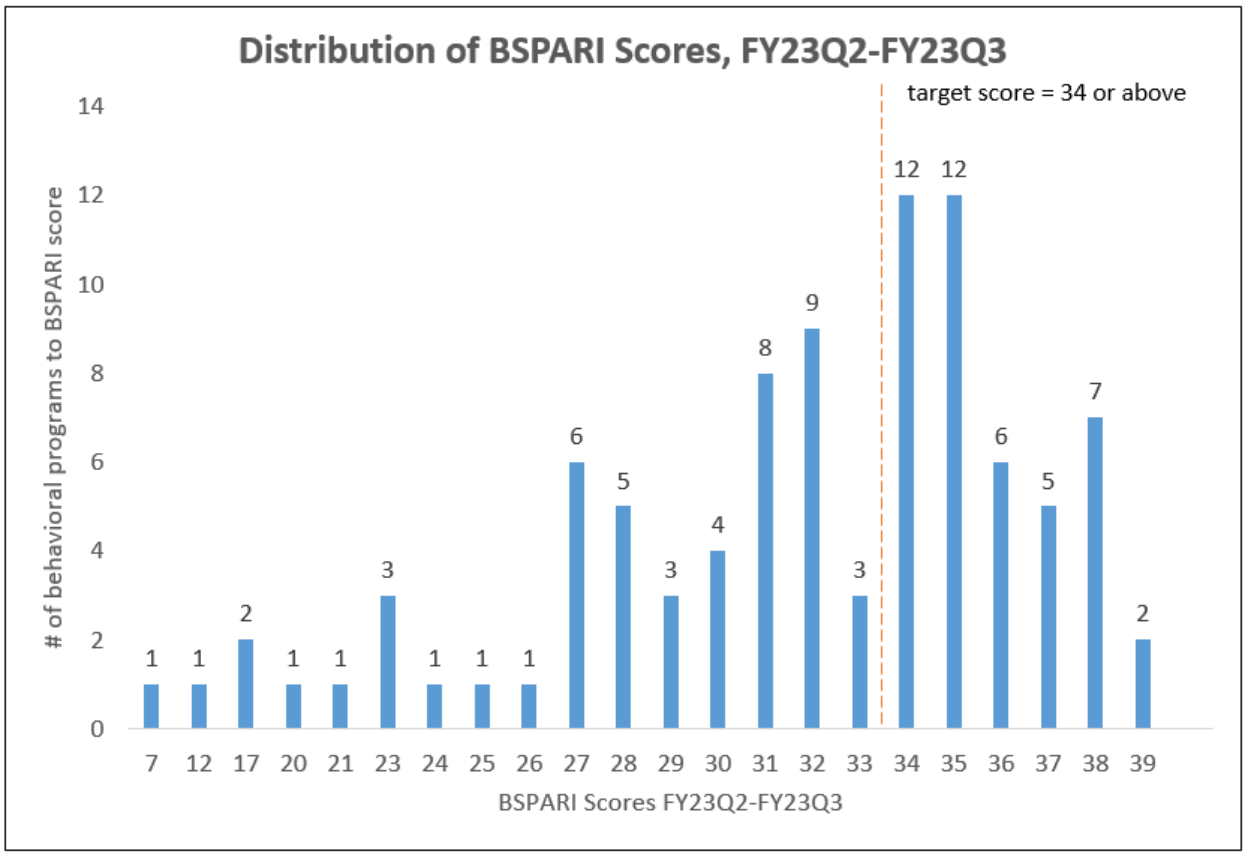
# of BSPARIs reviewed	Mean points score and mean % on BSPARIs	Median points score and % on BSPARI	Score ranges, mode	BSPARIs scoring at least 34 out of 40 points (85%)	BSPARIs scoring at least 30 out of 40 points (75%)	BSPARIs reviewed with feedback provided to behaviorist
94	31.4 points, ~79%	32.5 points, ~81%	Range of scores: 32 (7 to 39) Mode = 34, 35	44 out of 94, ~47%	68 out of 94, ~72%	71%

Note: At the time of this report, out of the 344 behavioral programs reviewed since inception of the BSPARI and the related feedback process, approximately 90% have also received a feedback session with the behaviorist (310 out of 344). A small percentage of behavior plans were crafted by providers that left waiver services prior to a review occurring. Reviews continue to be scheduled on an ongoing basis.

Though the number of reviews completed in each reporting period has varied, the data on reviews suggest performance improvement over time. The data on both the mean and median weighted points score, as well as the percentage of BSPARIs that are at an overall adequate

adherence level to the *Practice Guidelines*, has increased across reporting periods as can be observed in review of the tables on the preceding page.

The graphical display that follows provides a visualization of the score distribution of the 94 BSPARIs reviewed in FY23Q2 and FY23Q2. The vertical (y) axis displays the number of BSPARIs reviewed that had a particular score, while the x (horizontal) axis displays each of the scores yielded across the 94 reviews. Each blue bar has a number above it, which corresponds to the y-axis. For example, there was one BSPARI reviewed that had a score of 7, while there were six BSPARIs reviewed that had a score of 27. The dashed red line provides an indicator of the target score of 34 points or above; any data to the right of the dashed line is at or above that target.



It is hypothesized that some combination of the enhanced expectations for behavioral services via the regulations and *Practice Guidelines,* ongoing training opportunities given to the public by DBHDS and contracted Board Certified Behavior Analysts®, information and resource sharing, and the individualized feedback session to review BSPARI results with behaviorists are contributing to improved performance. As it relates to feedback sessions, several behaviorists have expressed that they are using the tool to "self-monitor" and improve their behavioral programming, as well as to complete peer reviews with other behaviorists in their agency.

During feedback sessions, DBHDS reviewers emphasize the resources tab to behaviorists to highlight areas to access the professional literature or other helpful information. DBHDS will continue to complete reviews of behavioral programming (paired with feedback sessions to behaviorists) using the BSPARI in the coming quarters. DBHDS believes that salient properties of the BSPARI (clear indications on presence/absence of required elements, color coding, resources features), paired with the quality feedback sessions that have been and will continue to be provided to behaviorists will continue to improve BSPARI scores over time and assist in making progress towards these indicators.

Support coordinator assessment of behavioral programming

The BSPARI also has an "administrative" component that is used by DBHDS reviewers to evaluate support coordinator's assessment of behavioral programming (part 5 of compliance indicator 7.20) via the On-Site Visit Tool, as well as the presence or absence of required documents based on the authorization status of behavioral programming, which corresponds to the following: *86% of individuals authorized for Therapeutic Consultation Services (behavioral supports) receive, in accordance with the time frames set forth in the DD Waiver Regulations, A) a functional behavior assessment; B) a plan for supports; C) training of family members and providers providing care to the individual in implementing the plan for supports; and D) monitoring of the plan for supports that includes data review and plan revision as necessary until the Personal Support Team determines that the Therapeutic Consultation Service is no longer needed* (Settlement Agreement Section III.C.6.a.i-iii, filing reference 7.19). To address part 5 of CI 7.20, DBHDS reviewed the On-Site Visit Tool (OSVT) that corresponded to the timeframe of the available behavioral programming reviewed to make a determination as to if the OSVT was scored correctly or incorrectly by the support coordinator. DBHDS has updated formatting of the questions on the OSVT to address the curative action related to CI 29.21. This was reviewed with CSBs in November 2022 and formally launched in January 2023. The information that follows about the OSVT is specific to the version of the OSVT in use through January 2023. This section of the report will be updated in the next report of this nature to include the specifics of the updated version of the OSVT. The updated OSVT can be accessed at this link.

The OSVT has a question that is particular to behavioral programming, which reads as follows: "Are behavioral services available and occurring as needed, and as authorized?". The possible responses that a support coordinator can choose from are "yes", "no", or "n/a". For anyone that is receiving behavioral services, "n/a" should never be selected as a response by the support coordinator; the only possible correct responses would be "yes" or "no" for someone receiving this service. If a response of "yes" is selected, the support coordinator is affirming that all of the following are in place (though based on the rules of the OSVT, the SC does not need to respond specifically to these 5 questions):

- An onsite assessment was completed (e.g. FBA)

- A behavior plan designed to decrease negative behaviors and increase functional replacement behaviors?
- Caregivers are trained to implement the behavior plan
- Presence of data collection/reviews to improve supports
- Changes made to the behavior plan as needed

When a "yes" response is selected, DBHDS reviewers are cross reviewing all documents from the time that the OSVT was completed to determine if a "yes" assessment is accurate. If any of the above are not present and the OSVT was scored as a "yes", DBHDS will determine that the OSVT was not scored correctly, and that the support coordinator is not accurately assessing if behavioral programming is being implemented correctly (part 5 of CI 7.20). Conversely, if a support coordinator responds with "no" to the question of, "Are behavioral services available and occurring as needed, and as authorized?" the support coordinator is required to provide "yes" or "no" responses to the 5 questions. These responses are reviewed by DBHDS reviewers to determine if the support coordinator has accurately assessed if behavioral programming is being implemented incorrectly (e.g. absent any of the 5 components in the bulleted questions above). Thus, DBHDS reviewers are determining if the support coordinator is overall accurate in their assessment of behavioral programming using the OSVT via their response of "yes", "no", or "n/a" to this question on the OSVT.

Out of the 94 behavioral programming reviews that occurred in FY23Q2 and FY23Q3, approximately 64% of OSVTs were scored correctly (i.e. based on documentation review, the support coordinator accurately assessed if behavioral programming is being implemented correctly or not). An approximate 36% were either scored incorrectly or were not available to DBHDS for this review (i.e. the support coordinator erred in their assessment of behavioral programming being implemented correctly or incorrectly, or the OSVT was not available in WaMS for review).

To assess compliance with CI 7.19, DBHDS is using the randomized sample of behavior support plans/programming that are conducted as part of quality review on adherence to the *Practice Guidelines* via the BSPARI. Specifically, DBHDS reviewers are analyzing the dates of behavior plans and associated documentation in comparison to the authorization type and expectations of associated timelines in the overarching regulations for this service to determine if required components are in place within the required timeframes. For the four overarching deliverables in this indicator, DBHDS is focusing on "annual" authorization types, as these four requirements correspond to this type of authorization only. In summary, those deliverables are: 1) functional behavior assessment, 2) plan for support (behavior support plan), 3) training for supporters and 4) monitoring of the plan via data collection and plan revision as necessary. The behavior support plan and FBA also need to be completed within 180 days of the initial authorization.

DBHDS has updated the logic for determining how to count the four key overarching deliverables in the 22nd study period in accordance with several minimum elements outlined on the BSPARI, in agreement with the Independent Reviewer and expert consultants. DBHDS is providing data on all annual plans reviewed since inception of reviews with the BSPARI for this report as follows:

- At the time of this report, 258 "annual" status BSPARI reviews have occurred.
- Out of these 258 annual status plans reviewed, 172 had all four overarching deliverables that are required to occur as a part of CI 7.19 with the methodology agreed upon in the 22nd study period. This equates to approximately 67% of annual plans having all required components since the inception of the use of the BSPARI.
- Since inception of reviews with the BSPARI, there has been improvement in inclusion of the four deliverables in CI 7.19 based upon the new logic agreed upon between DBHDS and the reviewers. The number and percentage of plans with all four required deliverables out of the total across the batches of BSPARIs reported out in this and previous reports are as follows:
    - Late FY22Q1-FY22Q3 (80 annual programs reviewed, 36 with all four components): 36/80 = **45%**
    - Mid FY22Q3-late FY23Q1 (99 annual programs reviewed, 75 with all four components): 75/99 = **76%**
    - FY23Q2-FY23Q3: (79 annual programs reviewed, 61 with all four components): 61/94 = **77%**
- To date, DBHDS has reviewed 344 sets of behavior programs. Of these 344 programs reviewed, 329 have been completed prior to or within 180 days of the initial service authorization (approximately 96%).

Performance is meeting expectations for the 180-day timeline for creation of required documents, and performance is improving over time related to the four required components for annual plans.

Behavioral Services intersections with Crisis Services

To address compliance with parts 2 and 3 of CI 7.20, DBHDS is providing the following information for FY23Q1 and FY23Q2:

- *(2) from among known hospitalized children and adults, the number who have not received services to determine whether more of these individuals could have been diverted if the appropriate community resources, including sufficient CTHs were available*
    - In FY23Q1, there were 154 unduplicated individuals that accepted REACH (known) and did not have therapeutic consultation services at the time of the hospitalization. REACH data from the same time period indicated that 9 hospitalizations could have been diverted to the CTH; for 7 of these hospitalizations, the person or their decision maker refused a CTH admission, and for 2 of these, the CTH could not serve the person based on bed and staffing availability.
    - In FY23Q2, there were 138 unduplicated individuals that accepted REACH (known) and did not have therapeutic consultation services at the time of the hospitalization. REACH data from the same time period indicated that 4

hospitalizations could have been diverted to the CTH, but the person or their decision maker refused a CTH admission.

- *(3) for those who received appropriate behavioral services and are also connected to REACH, determine the reason for hospitalization despite the services*
    - In FY23Q1, there were 13 hospitalizations where the person had therapeutic consultation service (e.g., a service authorization present) at the time of their hospitalization that also had accepted REACH services at the time of their hospitalization. In FY23Q2, this number was 17 hospitalizations. The indicator speaks to determining the reason for hospitalization and DBHDS has provided this information in a separate addendum document to the DOJ consultants for review to ensure confidentiality for each person.

Behavioral Resources

A compliance indicator for Settlement Agreement Section V.H.1 (filing reference 49.5) provides as follows: *DBHDS makes available for nurses and behavioral interventionists training, online resources, educational newsletters, electronic updates, regional meetings, and technical support that increases their understanding of best practices for people with developmental disabilities, common DD-specific health and behavioral issues and methods to adapt support to address those issues, and the requirements of developmental disability services in Virginia, including development and implementation of individualized service plans.*

To address the indicator specific to behavioral services, DBHDS has undertaken the following measures from FY23Q1 through FY23Q3:

- Publication of six educational articles on behavioral services (included on the DBHDS website and in the Office of Integrated Health's monthly newsletter) on the topics listed below. Each article contains references to the professional literature and/or website resources.
    - October 2022: Quality Assurance in Behavior Planning
    - November 2022: Continuing Education
    - December 2022: Introductory Resources on Behavior Analysis
    - January 2023: Constructing Line Graphs with Condition or Phase Change Lines
    - February 2023: Writing Behavior Definitions for Practical Applications
    - March 2023: Reinforcement or Not Reinforcement

Of note, several of the article topics in the "ABA Snippets" from the OIH Newsletter were selected directly based upon observed trends in reviews of behavior plans (i.e. Constructing Line Graphs with Condition or Phase Change Lines, Writing Behavior Definitions for Practical Applications).

- In partnership with the Virginia Association for Behavior Analysis, DBHDS provided a training titled "Navigating Therapeutic Behavioral Consultation". The training provided a review of an array of topics including (but not limited to) provider enrollment,

obtaining referrals from CSBs, basics and FAQ on billing, quality assurance initiatives, and required documentation and authorization types. Over 200 participants attended this online training.

In April 2023, DBHDS launched a search engine specific to therapeutic behavioral consultation. DBHDS hopes that having information for behaviorist in one central search engine repository will be helpful to individuals, families, providers, and CSBs alike and that over time this will help improve timely connection to these services.

Summary

DBHDS has continued with numerous initiatives to improve timely connection to behavioral services, as well as to improve the quality of said services. As it relates to connecting people in need, over the past 6 months, improvement has been seen in the percentage of individuals with a need for this service being connected to a behaviorist within 30 days, with performance improving from 64% to 69%. DBHDS has also provided data on service utilization in this report to fully address the first stipulation of compliance indicator 7.20 and the related curative action. This report has noted several undertakings that DBHDS believes will continue to bolster timely connectivity to this service, including the launch of a search engine for behaviorists specific to therapeutic consultation.

DBHDS continues to use the automated scoring instrument (BSPARI) created by DBHDS BCBAs®, in consultation with a behavior analysis researcher at the University of Cincinnati, to complete reviews of behavior programs to determine adherence to the *Practice Guidelines for Behavior Support Plans.* An important part of these reviews is providing copies of scored BSPARIs to behaviorists, along with feedback sessions where DBHDS can outline areas in adherence with the Practice Guidelines, outline areas not in adherence, and provide resources when applicable. DBHDS is not aware of any other state has created an automated quality review and resource tool for behaviorally analytic services and is using BCBAs® with extensive practical experience to provide pinpointed feedback on adherence to quality framework guidelines, nor has DBHDS found this in review of behavioral literature. Adherence to the *Practice Guidelines* as demonstrated in BSPARI scores appear to be improving across reporting periods, as can be observed in Tables 6 through 8 in this report.

DBHDS continues to require training on this service for support coordinators, and offers training and resources for professionals. These trainings and resources, as well as past offerings of introductory and advanced training on behavior analysis topics from venerable experts in the field, are freely available on the DBHDS Behavioral Services website.

DBHDS believes that significant progress has been made in the most recent semi-annual review period, while acknowledging that work remains toward achieving all aspects of the provisions and compliance indicators specific to behavioral services.

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