BH-TFC Update: August 2025

An Analysis of Behavioral Health Treatment Foster Care

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BH-TFC Pilot phase Evaluation Executive Summary

Behavioral Health Treatment Foster Care (BH-TFC) combines Behavioral Rehabilitation Services (BRS) with community based behavioral health services. These combined services are provided in a BRS Proctor Foster family placement, meaning that these placements are in a familial setting and limited to one youth per home. BH-TFC's pilot phase began in June 2021 and ran through December 2024.

The Office of Reporting, Research, Analytics and Implementation (ORRAI) was requested to complete an evaluation of BH-TFC in 2023 and provided quarterly updates through the end of the pilot phase.

Because youth in BRS level placements have higher behavioral health needs, the youth typically experience placement stability challenges, thus the main focus of this evaluation is to assess BH-TFC's effect on placement stability. This evaluation will examine placement stability through a handful of outcomes: placement length, whether the placement ended in an escalation or de-escalation in the youth's level of care and whether the youth experienced any mental health related emergency department visits during the placement.

To build a comparison group, many individual and case level attributes were used to match each BH-TFC placement to its most similar BRS placement. This is done to approximate the conditions of a randomized control trial.

The evaluation of the BH-TFC pilot phase found promising, though not statistically significant, results across all the placement stability outcomes assessed. The BH-TFC placements had a longer average placement length, were more likely to end with a de-escalation of level of care and were less likely to experience a mental health related emergency department visit. It is also apparent that the efficacy of the program is heavily influenced by the level to which mental health services are accessed during the placement.the promising results are conditional on an adequate level of access to mental health services during the BH-TFC placement.

This evaluation is limited in its ability to make causal claims due primarily to the lack of randomized assignment to either the treatment (BH-TFC) or comparison group. Additionally, there may be confounding variables not captured in Child Welfare administrative data.

Updated Results

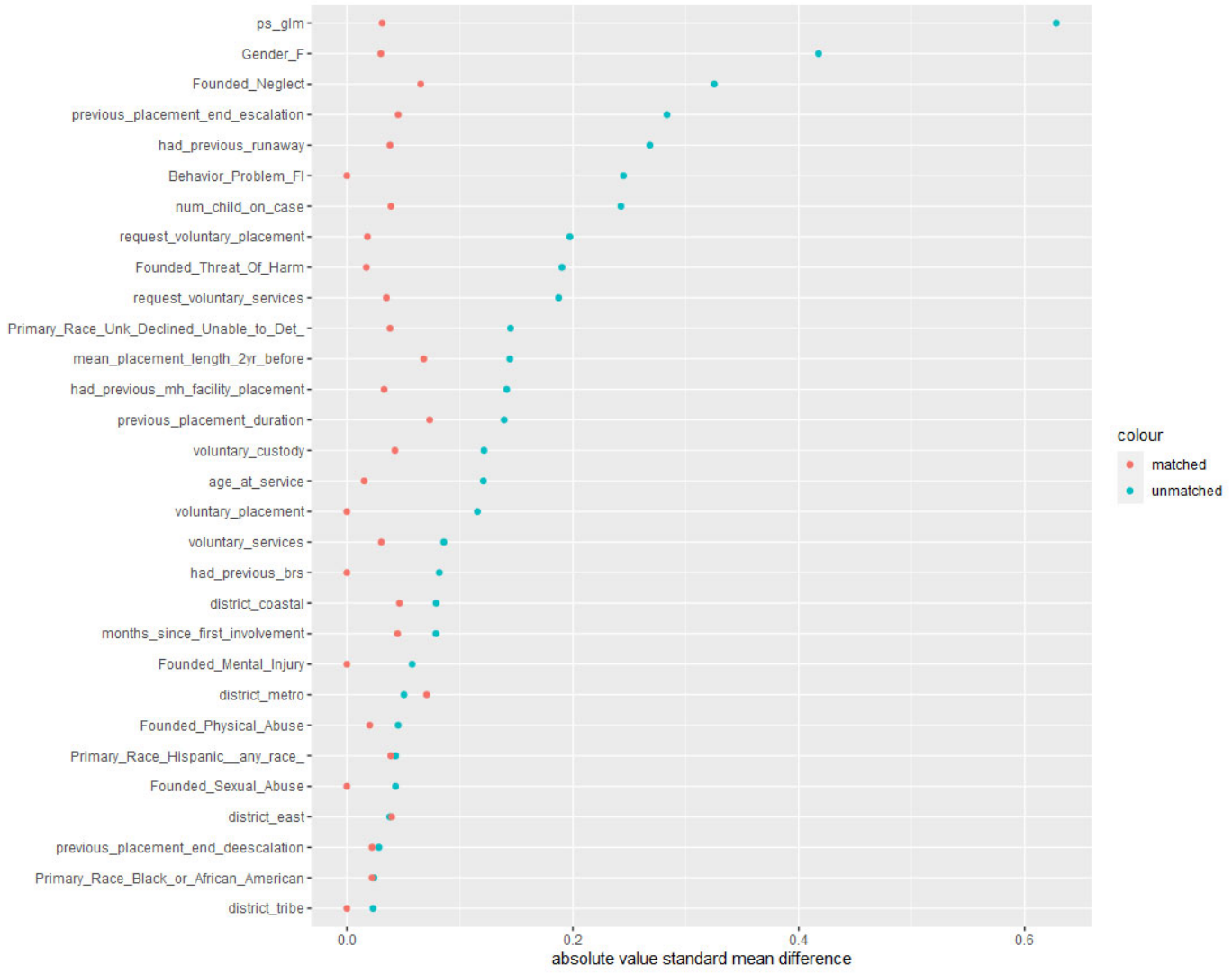
ORRAI has been requested to provide updates on the outcomes evaluated during the pilot phase on a four-month cadence. This is the second update and contains data through the end of August 2025. The data set used contains **166** BH-TFC placement observations and **166** non BH-TFC observations, compared to 130 of each used in the pilot evaluation.

It is also important to note that the comparison group for this update is not necessarily the same as the previous evaluation. Each time a matched sample is created for the new and evolving BH-TFC population, the most similar sample is pulled from the non BH-TFC BRS population, meaning that the composition of the comparison group will change from update to update.

> **Note**
>
> These update documents will not contain a detailed description of the data preparation process, or the methods used to control for confounding variables and estimating treatment effects. Those can be found in the *BH-TFC Pilot Evaluation* document. Unless stated in this document, it can be assumed that the same methods were used here.

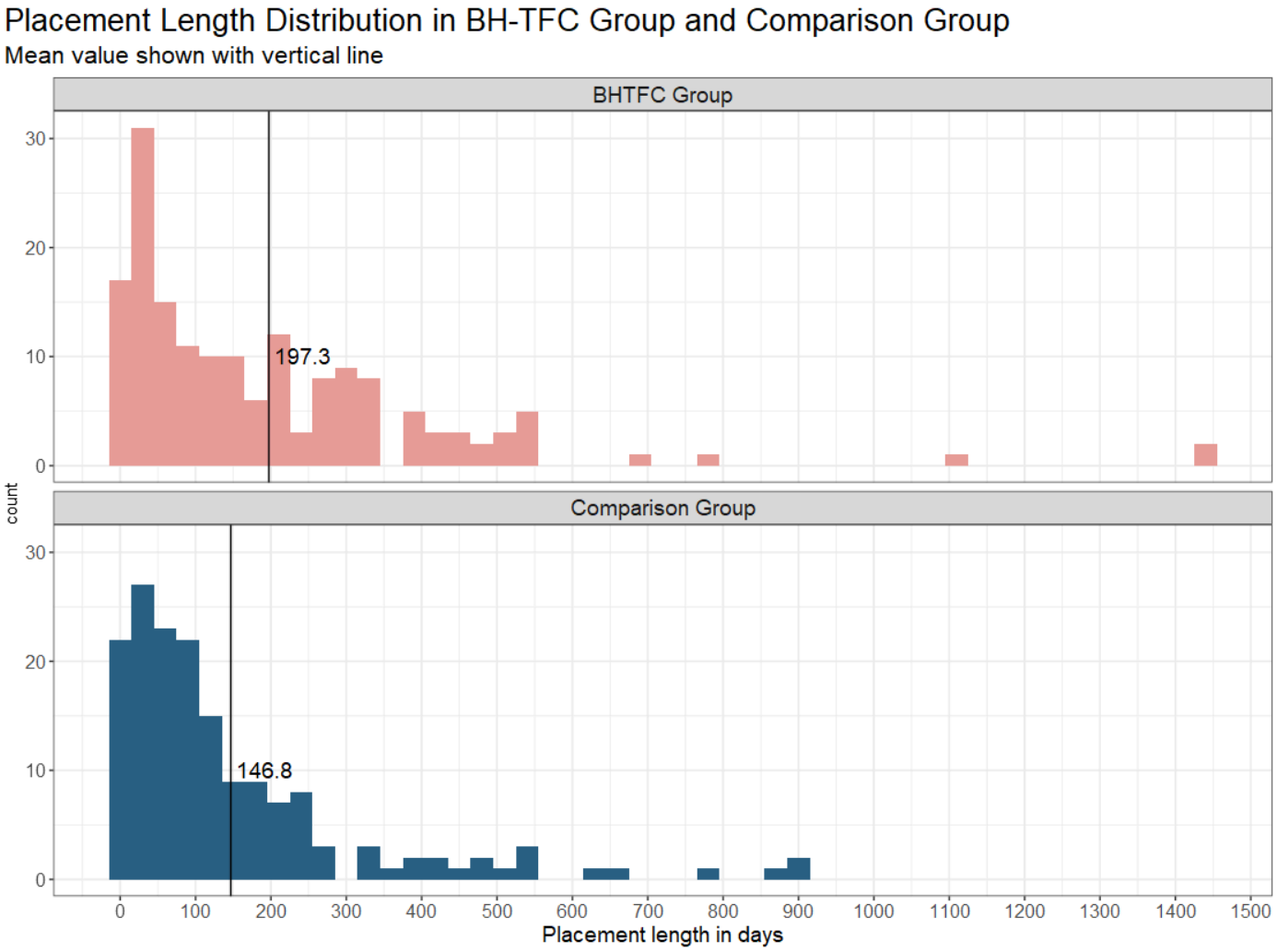
Matching Results

The matched sample created for this update controls for confounding variables available in the ODHS Data Warehouse. A visualization of the matched sample covariate balance can be seen in the plot below. Each matching variable is listed on the vertical axis, the horizontal axis is a measure of how similar the BH-TFC and non BH-TFC groups are on that variable. The blue dots represent balance before matching and the red dots represent balance after matching. The closer a dot is to 0, the more similar the two groups are on that variable.

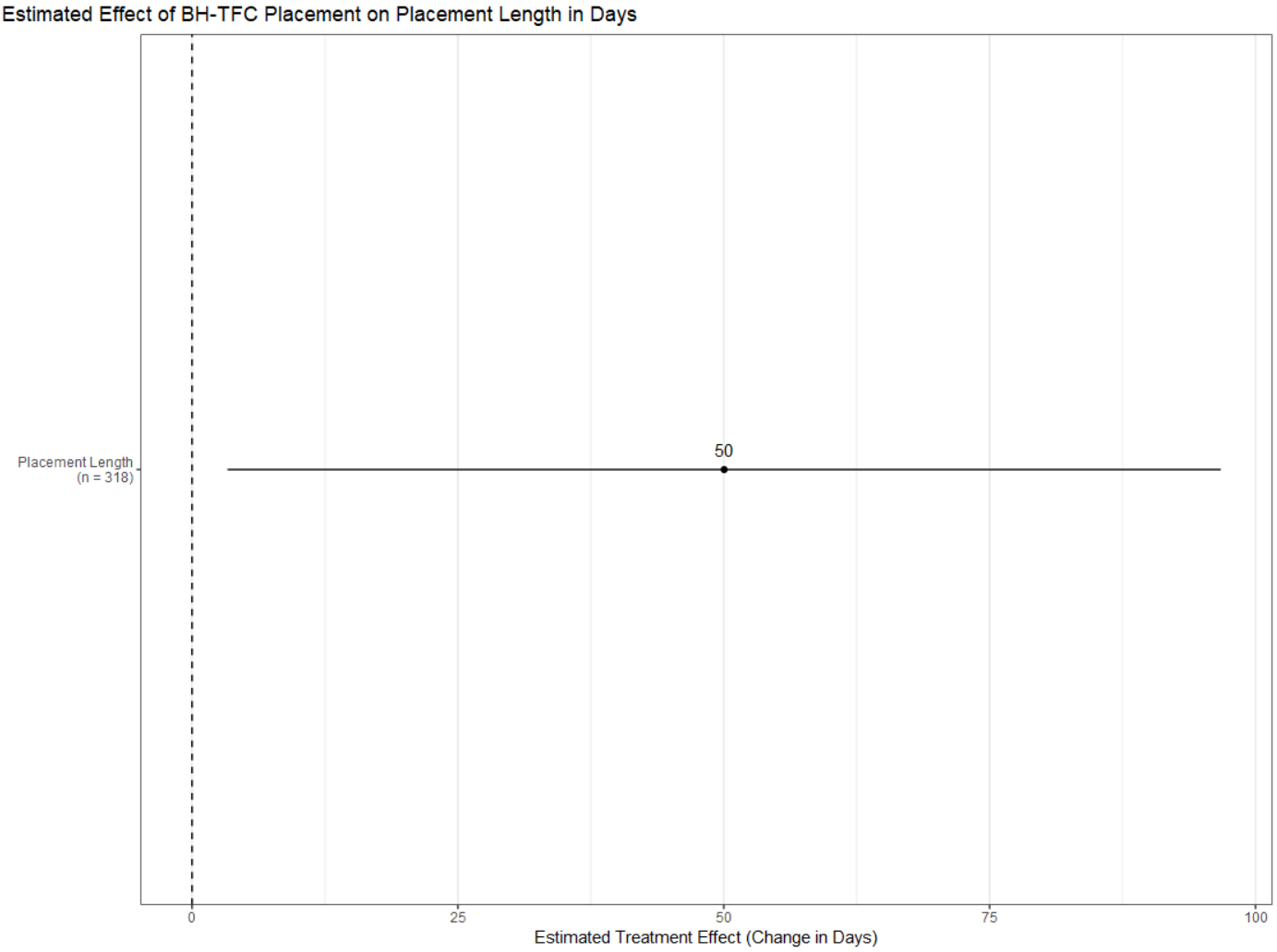


Placement Length

The plot below shows the distribution of placement length in days for BH-TFC and the BRS comparison group. The average placement length in the BH-TFC group was **197.3** days while the average placement length in the BRS comparison group was **146.8** days.



The plot below depicts the estimated treatment effect of BH-TFC on placement length. The estimated effect of BH-TFC is an increased placement length of **50** days on average. The 95% confidence interval is shown by the horizontal line. This confidence interval does not span 0, meaning that these results are statistically significant when $\alpha = 0.05$ (see explanation of significance levels below).

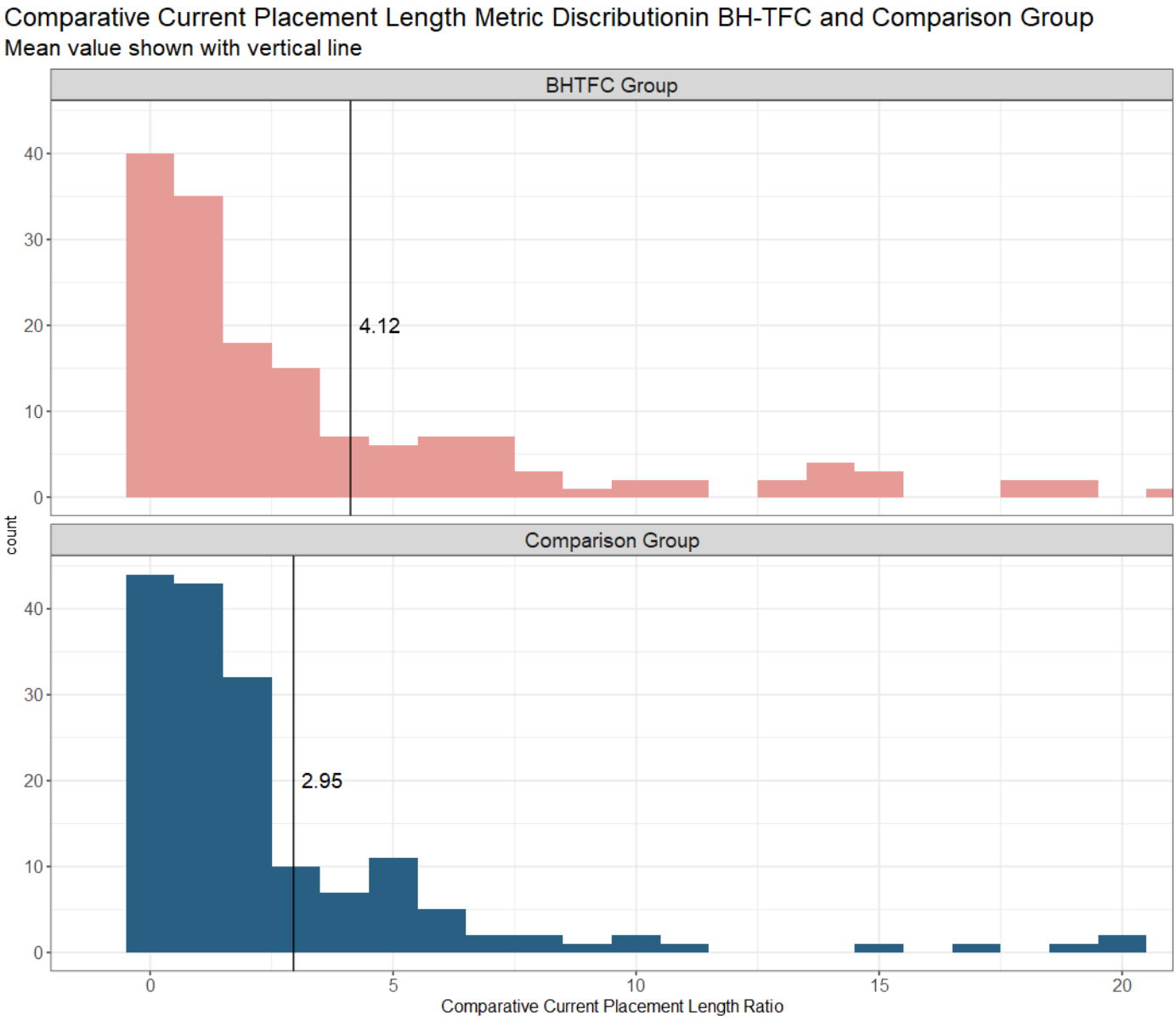


Significance levels

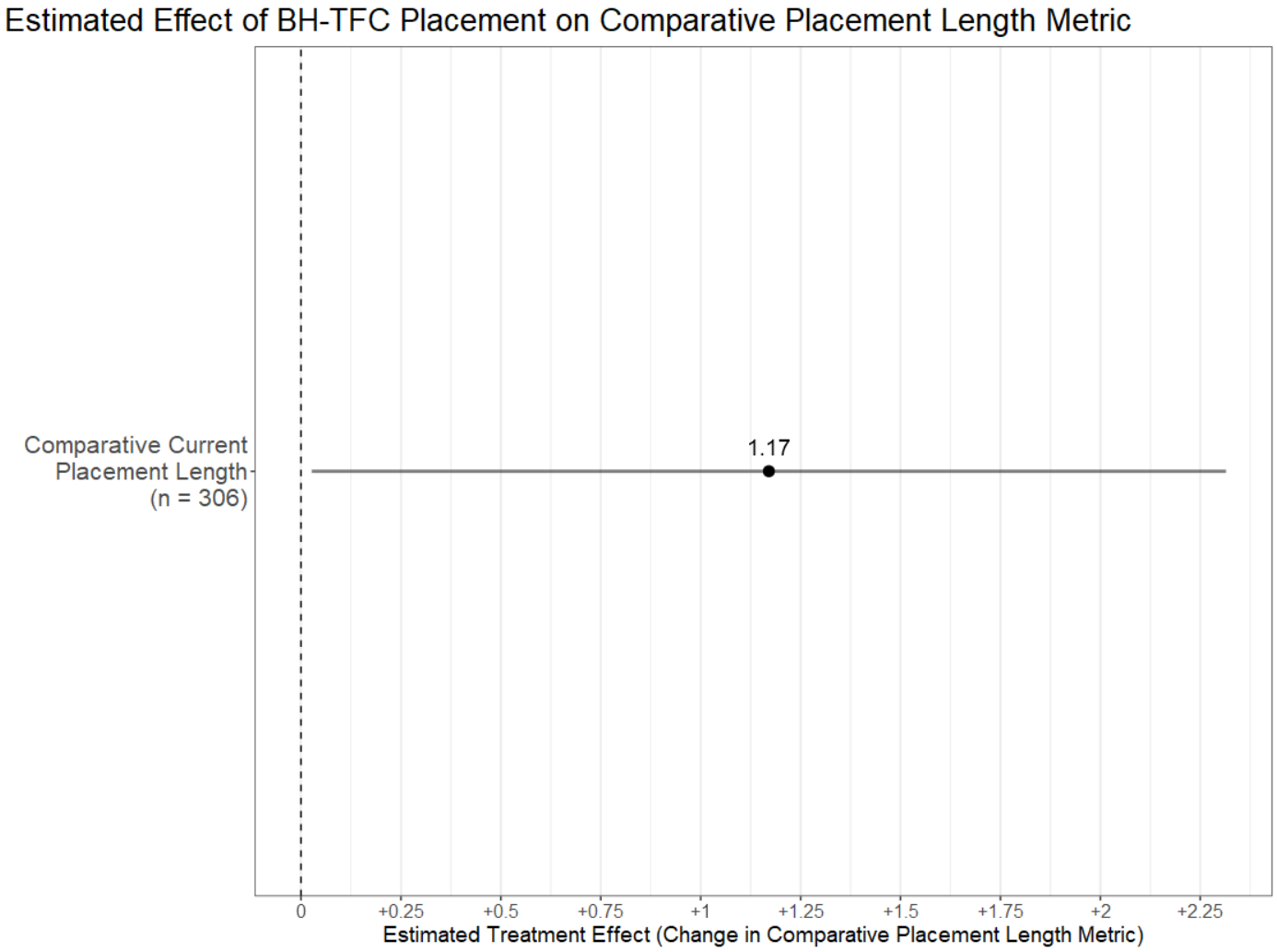
Significance levels, often denoted by the Greek letter α (alpha), represents the level of uncertainty the researcher is willing to accept. A significance level of 0.05 represents a 5% chance of incorrectly reporting a significant effect when none exists (known in statistics as a "type 1 error"). A significance level of 0.05 is common and considered the "default" significance level in most statistical software.

Comparative Current Placement Length

Because BH-TFC and the BRS placements in the comparison group are designed for youth with high mental and behavioral health needs, the youth placed in them often have turbulent placement histories with many disruptions. Because BRS level placements come with additional services and supports, they often last longer than the average placement experienced by these youth (foster care placements) as they escalate to a BRS level of care. This is shown in the plot below, which is the distribution of the Comparative Current Placement Metric (CCPM) defined in the BH-TFC Pilot Evaluation document. Both groups see improvements during their current placement length (BH-TFC or BRS for the comparison group) compared to the average of the previous two years of placements. The mean CCPM in the BH-TFC group is **4.12**, meaning their BH-TFC placements are lasting 4.12 times longer on average than the average of the previous two years of placements. The mean CCPM in the comparison group is **2.95**.

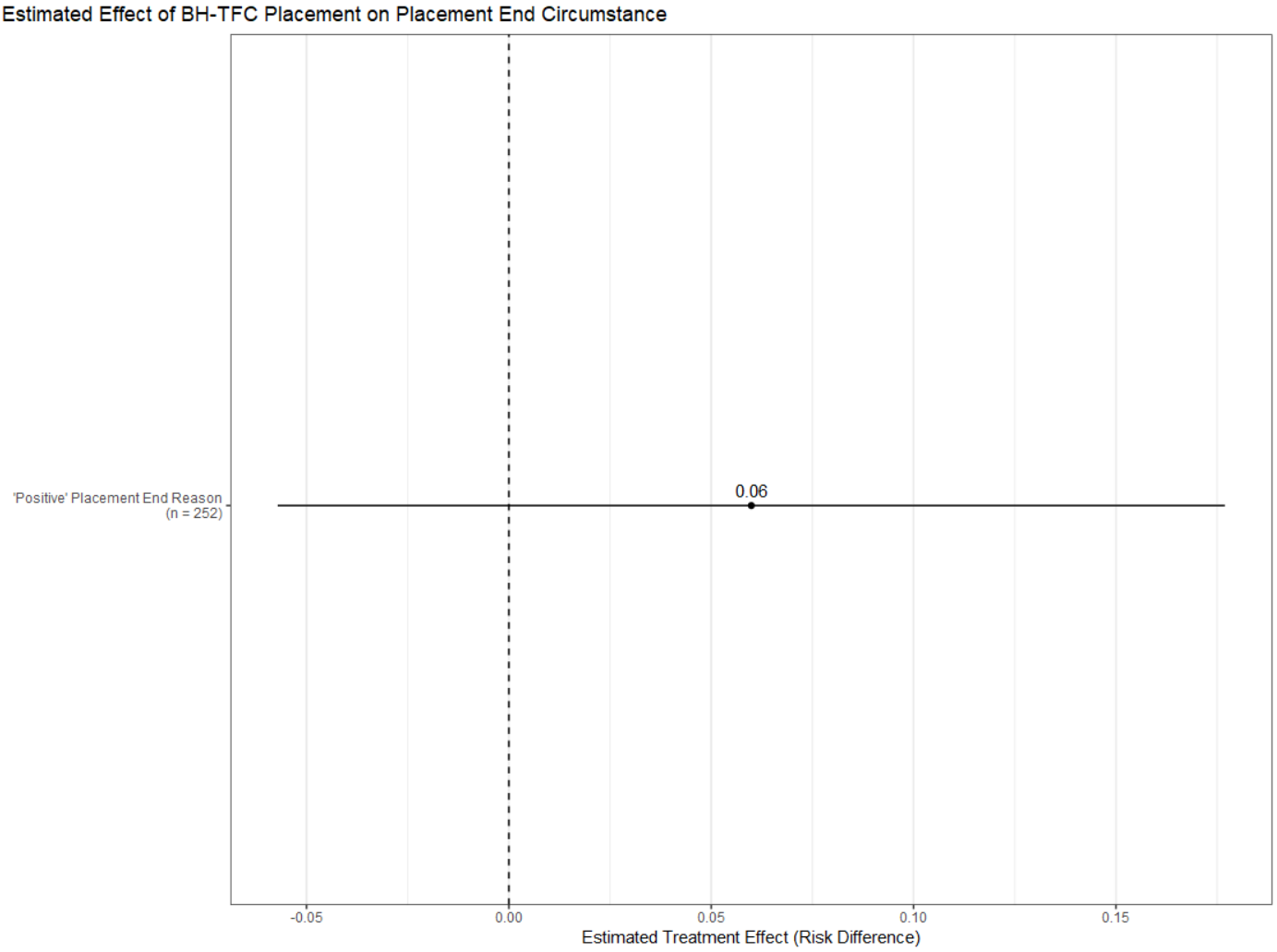


The plot below depicts the estimated treatment effect of BH-TFC on the CCPM. The estimated effect of BH-TFC is an increase of 1.17 to the CCPM on average. For example, if a youth's estimated CCPM for a new non-BH-TFC placement was 3.0, then on average, their CCPM in a BH-TFC placement would be 4.17. The 95% confidence interval is shown by the horizontal line. This confidence interval does not span 0, meaning that these results are statistically significant when $\alpha = 0.05$.



Placement End Reason

Of all the placements in the BH-TFC group, **49%** were labeled as moving to a less restrictive level of care (using the categorization criteria defined in the BH-TFC Pilot Evaluation document) compared to **43%** in the BRS comparison group. The plot below depicts the estimated treatment effect of BH-TFC on the likelihood that the placement results in an exit to a lower level of care. The estimated effect of BH-TFC is a risk difference of 0.06. The 95% confidence interval is shown by the horizontal line and spans 0, meaning that while promising, these results are not statistically significant when $\alpha = 0.05$.



Note on Risk Difference

Risk difference is the difference between the risk (likelihood) of an outcome in the exposed group (BH-TFC) and the unexposed group (BRS comparison group). It is easy to misinterpret risk difference as percent change, but it is actually more easily interpreted as a percentage *point* change. See the table below for an example. Notice how the size of the change is the same no matter what the starting value is when applying a risk difference.

starting value	After (Risk difference of 0.1)	After (Percent change of 0.1)
0.50	0.60	0.55
0.20	0.30	0.22

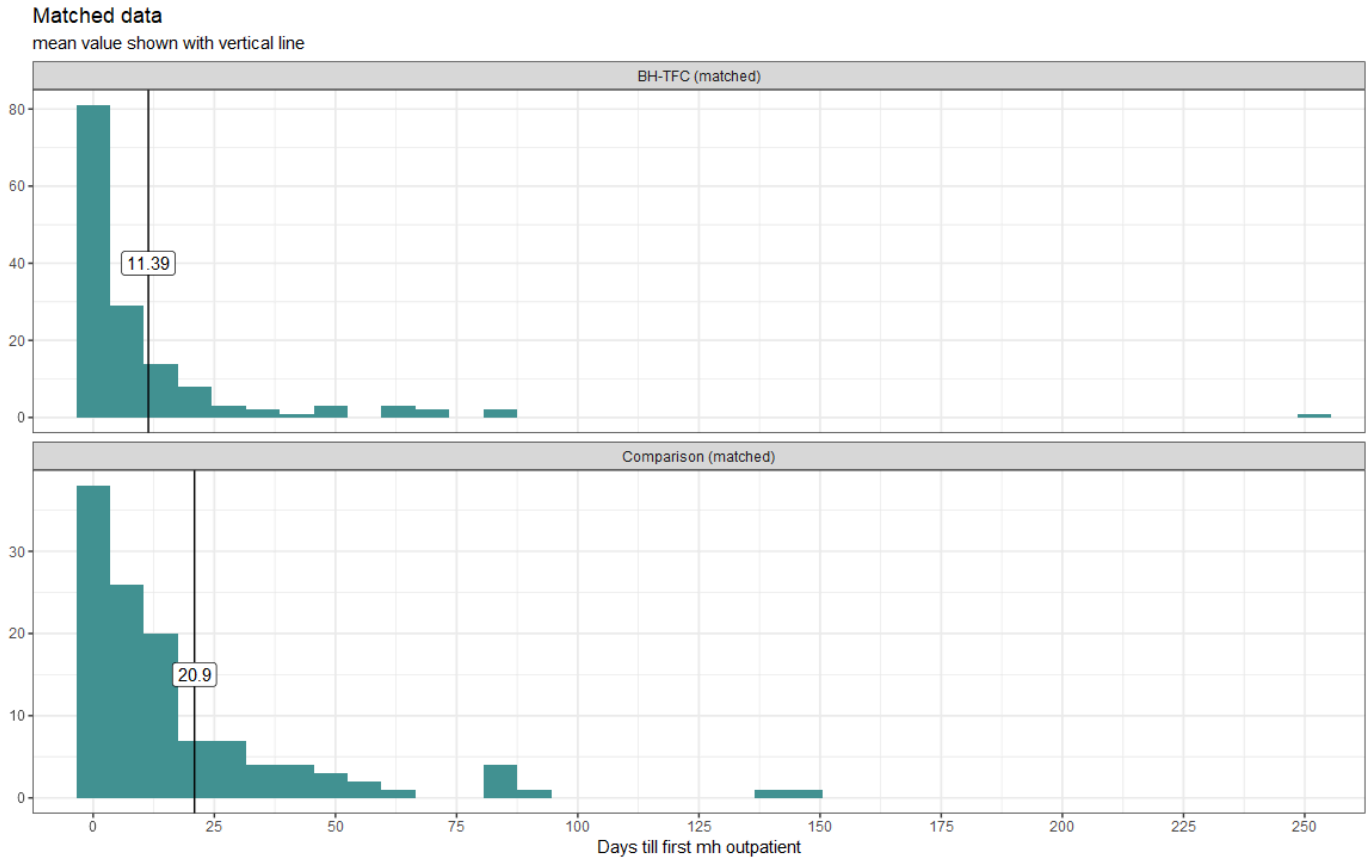
Mental Health Service Access

Instances of mental health outpatient visits were derived from Medicaid claims data. Any mental health outpatient visits that were not billed through Medicaid will not appear in the data source and is not counted towards this evaluation.

Ninety-two percent (92%) of the BH-TFC placements had at least one instance of mental health outpatient services, compared to only 77% in the BRS comparison group.

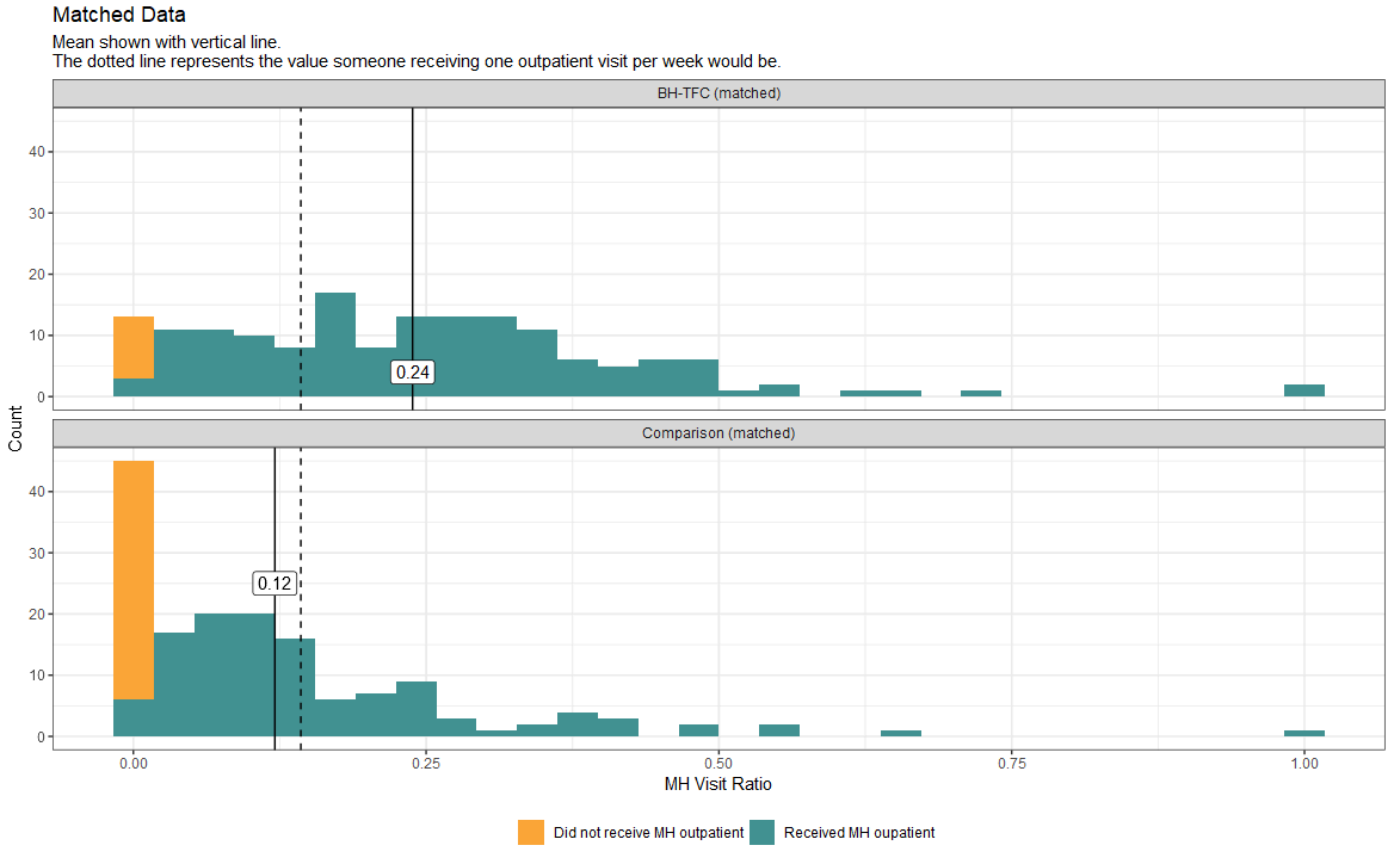
Group	Had any MH outpatient services	Group size	Percent
Comparison	128	166	**77%**
BH-TFC	153	166	**92%**

The plot below shows the distribution of the number of days after the start of the placement that it took to receive the first instance of mental health outpatient services (for those placements with at least one instance). The average number of days to service was 11.02 in the BH-TFC group, and 18.59 in the comparison group. Youth in BH-TFC placements received their first mental health outpatient services earlier, on average, than placements in the comparison group.



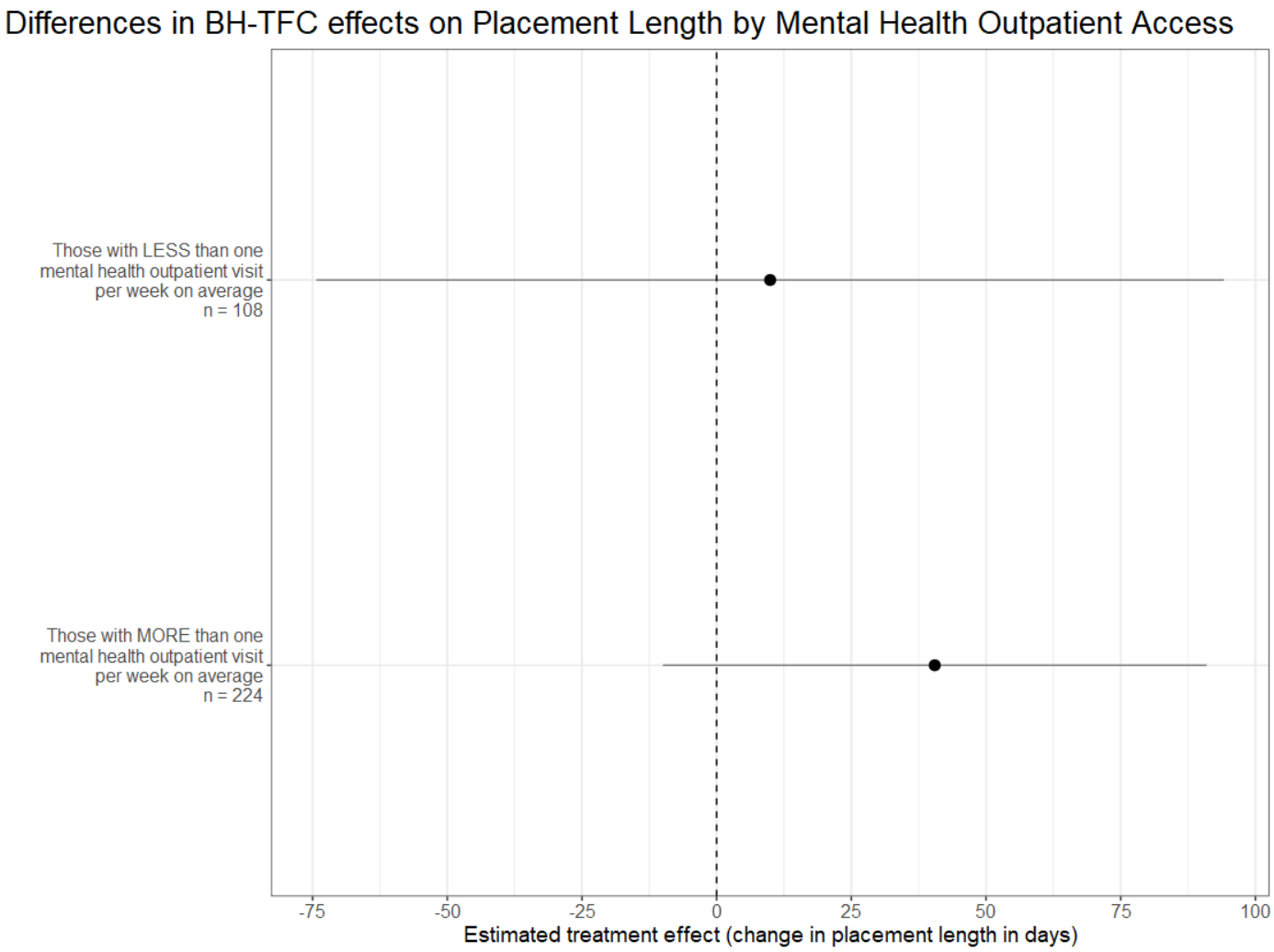
Because each placement is a different length, a simple count of mental health outpatient visits is insufficient to determine which group has better mental health service access. To make comparison possible, mental health access is measured as the ratio of the number of mental health outpatient visits to the number of days in the placement. For reference, a ratio of 0.143 would represent a placement with one outpatient visit per week on average. This once-a-week reference value is shown in the plot below with the dashed vertical line.

The plot below shows the distribution of the mental health visit ratios for the BH-TFC and comparison groups. The yellow sections represent the portion of each group that received no access to mental health outpatient visits.



To investigate how impactful mental health service access is to the effectiveness of the BH-TFC placement level, observations were grouped into two groups; the first group is placements where the mental health visit ratio was less than 0.143 (less than once a week on average). The second group is placements where the mental health visit ratio was greater than or equal to 0.143 (at least once a week on average).

The plot below depicts the estimated treatment effect of BH-TFC on placement length by mental health access group. Those in the group that received at least one mental health outpatient visit per week on average saw an average increased placement length of **41.1** days, on average, while those with less than one mental health outpatient visit per week on average saw an increase in placement length of **10.8** days, on average. The group receiving at least one mental health outpatient visit per week make up the majority of the BH-TFC population. This indicates that regular access to mental health outpatient care is a key component to the success of the BH-TFC placement level.



Conclusion

Little has changed since the initial evaluation of the BH-TFC pilot. This analysis shows statistically significant results for BH-TFC's ability to increase placement lengths. The analysis also shows promising, though not statistically significant, results for BH-TFC's ability to positively impact the exit trajectory from the placement (placement end reason outcome). This analysis also shows the importance of the consistent mental health services that are a key part of this placement type.

The BH-TFC steering committee is currently in the process of finalizing and implementing the new contract, which may cause some changes in practice that will necessitate changes to the methods or outcomes of future updates. The next update will include data through December 2025.