

Oregon Intensive In-Home Behavioral Health Treatment

2024 ANNUAL REPORT

Prepared by the Data, Evaluation and Technical Assistance (DAETA) Team at
Oregon Health & Science University



Report to the Oregon Health Authority for Contract 179963

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Introduction

Intensive In-Home Behavioral Health Treatment (IIBHT) is a level of care introduced by the Oregon Health Authority (OHA) in 2020 for youth ages 0-20 with intensive behavioral health needs. The program offers a variety of in-home and community-based services, including case management, psychiatric services, skills training, individual and family therapy, crisis support, and peer support.

The OHSU Data Evaluation and Technical Assistance (DAETA) Team collects and analyzes IIBHT program data. The following report includes a description of the data collected in 2024, results of various statistical analyses, accomplishments and future work, and recommendations to OHA.

Statewide Data Summary

Since its launch in 2021, Oregon's IIBHT program has enrolled 725 youth and discharged 527 youth (**Table 1**). As of December 31, 2024, there were 234 youth actively enrolled in the program across the state.

The Q4 2024 IIBHT Quarterly Report (submitted to OHA on February 14, 2024), presents aggregate data for the agencies reporting in REDCap. The report includes quarterly and cumulative annual data. **Key statewide data and trends for 2024 are summarized below.**

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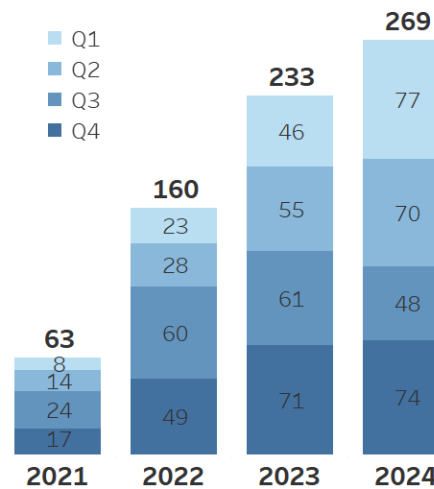
Total Enrollments and Discharges

Table 1 displays IIBHT enrollments and discharges over time. Enrollments and discharges have consistently increased over time, including in 2024. Both enrollments and discharges reached all-time highs in 2024.

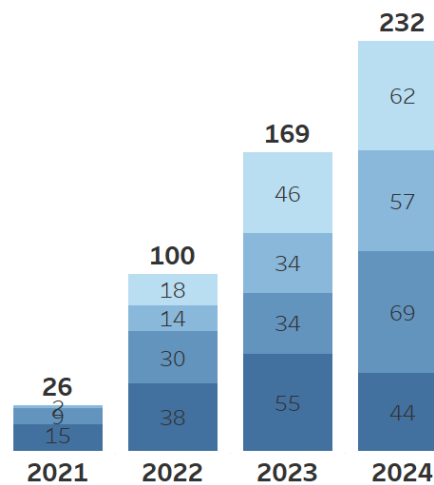
Table 1. Number of Youth Enrolled and Discharged by Quarter/Year

		Youth Enrolled	Youth Discharged
2021	Q1	8	0
	Q2	14	2
	Q3	24	9
	Q4	17	15
	TOTAL	63	26
2022	Q1	23	18
	Q2	28	14
	Q3	60	30
	Q4	49	38
	TOTAL	160	100
2023	Q1	46	46
	Q2	55	34
	Q3	61	34
	Q4	71	55
	TOTAL	233	169
2024	Q1	77	62
	Q2	70	57
	Q3	48	69
	Q4	74	44
	TOTAL	269	232
GRAND TOTAL		725	527

Enrollment Volume Over Time



Discharge Volume Over Time



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Demographics

Age: The average age of youth enrolled in IIBHT was 11 years old and half of the youth enrolled are between 9 and 14 years old. This average age is 2 years younger than the average age in 2023. The youngest youth enrolled was 2 and the oldest youth enrolled was 18.

Gender Identity and Sexual Orientation: In 2024, IIBHT served more male (56%) and female (36%) youth than any other gender category (4% other and 3% unknown), compared to 2021 (43%, 38%, 10%, 9% respectively) 2022 (50%, 36%, 9%, 5% respectively), and 2023 (51%, 35%, 13%, 2% respectively). The majority of youth who enrolled in 2024 identified as straight (49%) with 17% identifying as LGBTQ+ and 34% unknown, which was a similar proportion to prior years.

Race and Ethnicity: IIBHT primarily served White youth (88%), which was a similar proportion to prior years. Other race categories included American Indian/Alaska Native (7%), Asian (1%), Black/African American (8%), Hispanic or Latino (11%), Native Hawaiian or Pacific Islander (1%), Other (1%), and unknown (3%).

Total Household Income and Average Household Size: An estimated 20% of families reported household incomes of less than \$25,000/year; however, income information was missing for 47% of families. The average household size for 2024 was 4.40 people.

Foster Care and Adoption Status: 36% of the youth in IIBHT were reported as having been in foster care at enrollment or previously, while 14% of youth in IIBHT were reported as having been adopted.

Living Situation: The majority of youth who enrolled in 2024 lived in a private residence setting at enrollment (87%); 8% lived in a DHS setting at enrollment.

Pathway into Program

Referral Source: While outpatient therapists were the most common referral source (32%), this proportion has decreased by 24% over the past 3 years (56% in 2021, 44% in 2022, and 37% in 2023). Other referral sources were the second most common referral source at 20%. Additional referral sources were DHS (7%) and the individual's CCO (7%), which was similar to prior years.

Time from Referral to Intake: The statewide average number of days between the program's receipt of referral and date of program intake was 33 days for 2024, which is the shortest intake delay since 2021 (19 days in 2021, 56 days in 2022, and 48 days in 2023).

Presenting Referral Issue: About half (52%) of youth in IIBHT presented with a condition that significantly affected their functioning; 35% were identified as being at high risk of developing a condition of a severe or persistent nature. In addition, the percentage of youth who were identified as "may require residential treatment" or who were discharging from residential/higher level of care

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(27%) decreased by 10% since 2023.

Clinical Presentation

Diagnoses: Similar to prior years, the most commonly presented diagnostic categories (multi-select) included Attention Disorders (49%), Trauma and Stressor-Related Disorders (49%), Depressive Disorders (32%) and Anxiety Disorders (38%). However, the number of youth with Anxiety Disorders has gradually decreased since IIBHT began (from x% in x to x% in x).

Trauma History: Most youth (83%) in IIBHT reported having a trauma history. Common types of trauma included emotional abuse (49%), witnessing domestic violence (43%), physical abuse (38%), neglect (35%), and/or sexual abuse (23%).

Suicidality/NSSI History: 65% of youth in IIBHT reported a history of suicidal ideation, non-suicidal self-injury (NSSI), and/or have attempted suicide.

Substance Use History: Similar to prior years, 21% of youth in IIBHT reported a history and/or current use of alcohol and/or drugs.

Discharge Information

Care at Discharge and Program Length: 47% of youth who discharged from IIBHT transitioned to a lower level of care, while 18% stopped engaging with the program and 13% discharged to a higher level of care. Most youth discharged (78%) were connected to the clinically recommended level of care at program discharge. For all youth who discharged in 2024, the average program length was 165 days.

The average program length for youth who transitioned to a lower level of care was 202 days, which was about 2 months longer than youth who discharged for any other reason (132 days).

Barriers to Accessing the Recommended Care: Overall, an estimated 59% of youth had one or more barrier to obtaining the recommended level of care at discharge. The most common barriers included the youth/family declining further services (17%) and/or the youth/family being unable to engage in recommended services (12%). In addition, 23% had barriers that were unlisted.

Major Events During the Program: The most common major events that occurred during IIBHT included the youth having a mental health emergency department (ED) visit (19%), the youth running away from home (10%) and/or the youth having a major family change, such as a parental divorce or move (9%). However, similar to prior years, 44% of youth discharged with no major events occurring during the program.

ED Visits During the Program: Of the 232 youth who discharged in 2024, there were a total of 99 ED visits during the program between 43 youth, 75% of which were youth younger than 13 years

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old. Thirty ED visits were for aggression, 23 ED visits were for unknown reasons, 22 ED visits were for NSSI, 15 ED visits were for suicide attempt, 5 ED visits were for other reasons, and 4 ED visits were for an overdose. IIBHT services were still in place after the majority of the ED visits (61), but 17 ED visits resulted in a medical hospital stay, 6 resulted in an admission to a psychiatric inpatient unit, and 8 resulted in an admission to another inpatient unit.

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Supplemental Analyses

This section presents the results from several in-depth analyses that delve further into select trends observed on the descriptive quarterly reports. First, IIBHT program capacity and waitlists are examined. Next, statistical tests are used to determine whether significant improvement on the standardized measures (Hope Scale and Ohio Scale) is observed over the course of the program. Medicaid claims data is then used to evaluate longer term outcomes of the program, specifically recidivism and connection to care after IIBHT. Next, a section on LGBTQ+ youth describes trends specific to this population. Finally, an analysis of program enrollment length is presented. These supplemental analyses offer additional context and insight to the population served and outcomes of IIBHT.

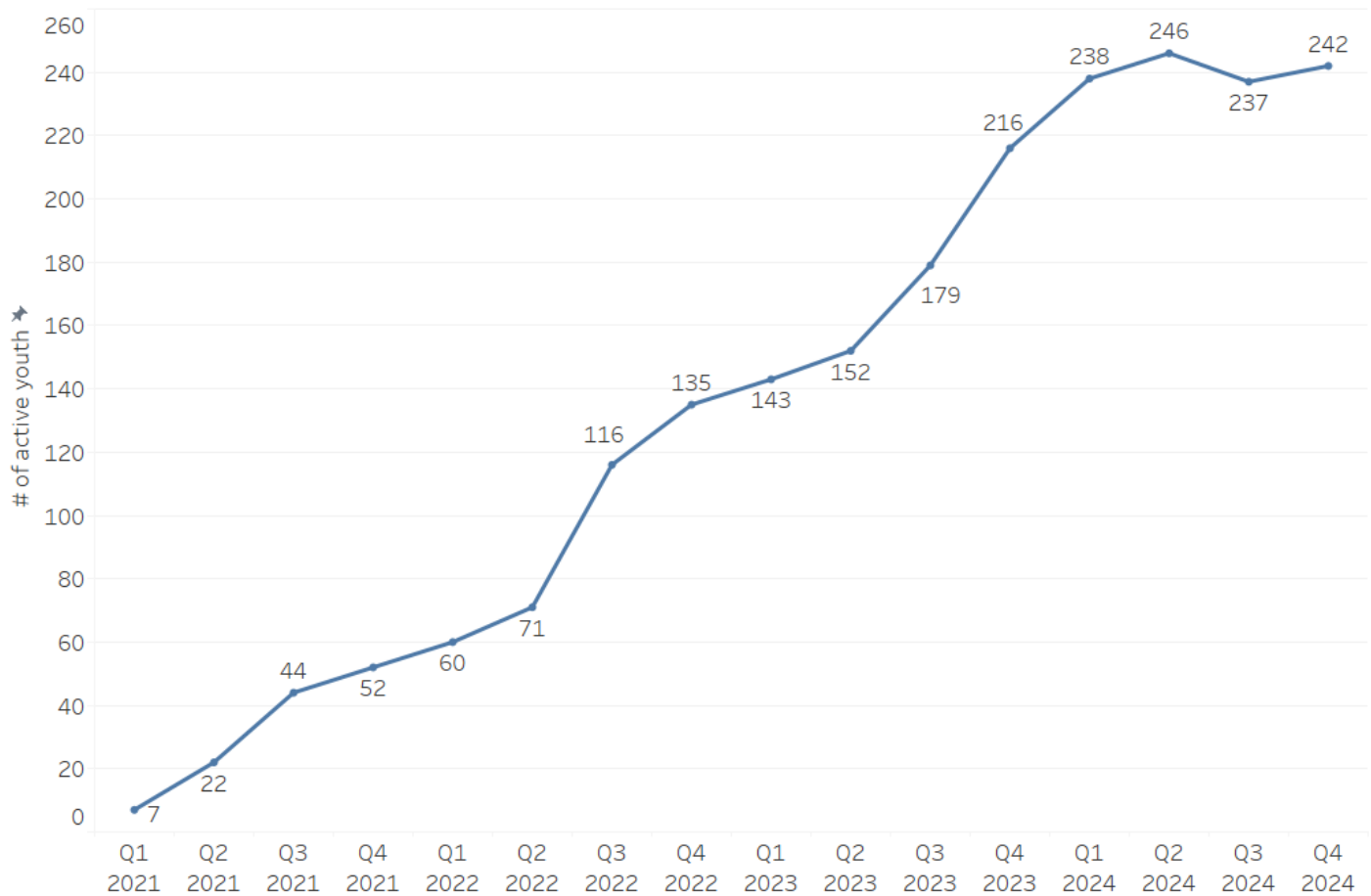
In this section, a series of One-Sample T-Tests were used on the difference in score from enrollment to discharge. When a statistical test was conducted, *statistically significant* findings are reported. *Statistical significance* often means there is statistical support for a relationship between variables (versus the assumption that the variables are not related) and is determined by a statistical test's *p-value*, or *p*. *P* is the probability of the observed findings under the assumption that there are no underlying relationships or trends within the collected data. In this report, statistically significant findings are considered when $p < 0.05$, which suggests that if there truly was no relationship or trend, the chance of the observed finding is very small (less than 5%). The smaller the *p-value*, the stronger the evidence that a relationship exists, however it may not mean the finding is *clinically* meaningful. Determining statistical significance is the first step in determining practical importance and signals that there should be further investigation. Each analysis in this report is testing for associations, and causation cannot be assumed, even if the relationship is statistically significant. **Note:** *this section uses all data for youth who discharged from IIBHT to date and excludes individuals with any missing data. Due to this, there may be slight inconsistencies between this section and other areas of the report.*

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Program Capacity

The number of youth who have received services within each year – also referred to as program capacity – has continued to increase throughout 2024 as it always has since IIBHT began (**Figure 1**), with the number of youth active in IIBHT reaching an all-time high in Q2 2024. **Table 3** and **Table 4** display the number of active youth at a given time point by CCO and program, respectively. Nearly every CCO increased capacity from 2023 to 2024, with the exception of PacificSource Community Solutions: Central Oregon and PacificSource Community Solutions: Marion/Polk. Additionally, nearly every program increased capacity from 2023 to 2024, with the exception of Best Care and Youth Villages.

Figure 1. Youth Active in IIBHT by Year



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Table 3. Youth Active in IIBHT by Year Listed by CCO

CCO	2021	2022	2023	2024
Advanced Health	7	12	15	17
AllCare CCO	9	14	17	23
Cascade Health Alliance	--	--	--	--
Columbia Pacific CCO	--	--	14	18
Eastern Oregon CCO	12	32	42	74
Health Share of Oregon	--	19	58	63
IHN	--	--	7	11
Jackson Care Connect	11	17	17	25
PSCS: Central Oregon	11	33	35	26
PSCS: Columbia Gorge	--	--	9	21
PSCS: Lane	--	17	35	53
PSCS: Marion/Polk	--	11	16	9
TCHP: North	--	--	--	--
TCHP: South	--	--	--	5
Umpqua Health Alliance	6	15	31	31
Uninsured	--	--	--	--
Yamhill Community Care	--	6	16	20
OpenCard	--	10	13	16
Private/Commercial Insurance	--	--	--	11
Unknown	--	--	--	--
Grand Total	63	197	330	430

(--) data suppressed for confidentiality, $n < 5$

Note: small numbers ($5 \leq n < 12$) may be statistically unreliable; interpret with caution

"IHN" - InterCommunity Health Network

"PSCS" - PacificSource Community Solutions

"TCHP" - Trillium Community Health Plan

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Table 4. Youth Active in IIBHT by Year Listed by Program

Program	2021	2022	2023	2024
Adapt	6	16	35	39
Best Care	6	10	10	5
Catholic Community Services	--	--	5	7
Center for Human Development	5	--	7	13
Clatsop Behavioral Health	--	--	--	5
Columbia Community Mental Health	--	--	--	--
Community Counseling Solutions	--	14	23	41
Coos Health and Wellness	7	12	15	17
Klamath Basin Behavioral Health	--	--	--	--
Lake View Health District	--	--	--	--
Lifeways	5	14	6	13
Lincoln County Health and Human Services	--	--	--	--
New Directions	--	--	--	9
Options for Southern Oregon	18	30	36	51
Oregon Community Programs	--	--	11	30
Symmetry	--	--	--	--
The Child Center	--	17	24	34
The Next Door	--	--	9	21
Tillamook Family Counseling Center	--	--	10	10
Trillium Youth and Family	--	--	9	11
Wallowa Valley Center for Wellness	--	--	--	--
Yamhill County Health and Human Services	6	10	17	19
Youth Villages	7	64	102	95
Grand Total	63	197	330	430

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Waitlist Delay from Program Referral to Intake

As mentioned previously in the report, the average number of days from receipt of referral to program intake has decreased in the last three years (19 days in 2021, 56 days in 2022, 48 days in 2023, and 33 days in 2024).

There is large variability in the average delay from referral to intake when sorting the information by **CCO (Table 5)**. In 2024, Eastern Oregon CCO had the shortest intake delay; Jackson Care Connect and PacificSource Community Solutions (Marion) had the longest delays. A regression analysis that looked for associations between the number of youth served by each CCO and their average intake delay did not find a significant relationship between the two variables ($p = 0.63$).

There is also variability in the average intake delay from referral to intake when sorting the information by **referral source (Table 6)**. Referrals coming from subacute and acute inpatient units have the shortest intake delay, while referrals from the emergency department and the Department of Human Services (DHS) have the longest intake delay. Similarly to the CCO trend, there was not a statistically significant association between the average intake delay and the number of youth referred from each source.

Table 5. Average Intake Delay by CCO

CCO		2021	2022	2023	2024	Average
Advanced Health	Average Intake Delay in Days	--	8	6	25	11
	Number of Youth Enrolled	--	6	9	6	24
AllCare CCO	Average Intake Delay in Days	--	31	48	47	40
	Number of Youth Enrolled	--	11	12	16	43
Cascade Health Alliance	Average Intake Delay in Days				--	--
	Number of Youth Enrolled				--	--
Columbia Pacific CCO	Average Intake Delay in Days			13	38	29
	Number of Youth Enrolled			6	10	16
Eastern Oregon CCO	Average Intake Delay in Days	12	9	15	7	10
	Number of Youth Enrolled	7	17	10	26	60
Health Share of Oregon	Average Intake Delay in Days		122	86	41	70
	Number of Youth Enrolled		8	31	33	72
IHN	Average Intake Delay in Days		--	--	25	54
	Number of Youth Enrolled		--	--	9	15
Jackson Care Connect	Average Intake Delay in Days	12	40	39	60	45
	Number of Youth Enrolled	5	14	9	18	46
OpenCard	Average Intake Delay in Days	--	--	96	36	65
	Number of Youth Enrolled	--	--	8	11	25
Private/Commercial Insurance	Average Intake Delay in Days		--	--	37	48
	Number of Youth Enrolled		--	--	7	12

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PSCS: Central Oregon	Average Intake Delay in Days	49	82	42	18	47
	Number of Youth Enrolled	6	20	26	19	71
PSCS: Columbia Gorge	Average Intake Delay in Days			--	40	37
	Number of Youth Enrolled			--	12	15
PSCS: Lane	Average Intake Delay in Days			25	20	22
	Number of Youth Enrolled			11	21	32
PSCS: Marion/Polk	Average Intake Delay in Days		84	75	59	73
	Number of Youth Enrolled		7	12	7	26
TCHP: North	Average Intake Delay in Days			--	--	--
	Number of Youth Enrolled			--	--	--
TCHP: South	Average Intake Delay in Days				--	--
	Number of Youth Enrolled				--	--
Umpqua Health Alliance	Average Intake Delay in Days			20	44	36
	Number of Youth Enrolled		--	17	22	43
Uninsured	Average Intake Delay in Days		--			--
	Number of Youth Enrolled		--			--
Yamhill Community Care	Average Intake Delay in Days		--	24	21	21
	Number of Youth Enrolled		--	8	10	19
Grand Total	Average Intake Delay in Days	19	56	48	33	41
	Number of Youth Enrolled	26	100	169	232	527

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Note: small numbers ($5 \leq n < 12$) may be statistically unreliable; interpret with caution

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Table 6. Average Intake Delay by Referral Source

Referral Source		2021	2022	2023	2024	Average
Acute inpatient	Avg. Intake Delay (days)	--	--	11	27	20
	Youth Enrolled	--	--	11	14	29
Subacute	Avg. Intake Delay (days)			44	25	12
	Youth Enrolled			7	6	13
Psych residential	Avg. Intake Delay (days)	--	47	30	--	33
	Youth Enrolled	--	5	12	--	22
Partial hospitalization	Avg. Intake Delay (days)		--		--	--
	Youth Enrolled		--		--	--
Day treatment	Avg. Intake Delay (days)	--	--	48	14	34
	Youth Enrolled	--	--	6	8	17
Wraparound	Avg. Intake Delay (days)		51	27	37	37
	Youth Enrolled		10	14	6	30
EASA	Avg. Intake Delay (days)			--		--

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	Youth Enrolled			--		--
CATS	Avg. Intake Delay (days)		47	26	--	34
	Youth Enrolled		6	5	--	13
Outpatient therapy	Avg. Intake Delay (days)	8	46	42	41	40
	Youth Enrolled	16	40	57	84.0	197
Outpatient psychiatry	Avg. Intake Delay (days)		--	--	--	33
	Youth Enrolled		--	--	--	5
Inpatient SUD	Avg. Intake Delay (days)		--	--		--
	Youth Enrolled		--	--		--
BRS	Avg. Intake Delay (days)		--	--		--
	Youth Enrolled		--	--		--
I/DD	Avg. Intake Delay (days)			--		--
	Youth Enrolled			--		--
Juvenile Justice	Avg. Intake Delay (days)		--		39	33
	Youth Enrolled		--		5	6
ED	Avg. Intake Delay (days)	--	--	--	--	67
	Youth Enrolled	--	--	--	--	7
Crisis Center	Avg. Intake Delay (days)	--		--		--
	Youth Enrolled	--		--		--
Mobile Crisis team	Avg. Intake Delay (days)				26	26
	Youth Enrolled				5	5
Other	Avg. Intake Delay (days)	--	68	96	32	58
	Youth Enrolled	--	15	23	40	82
DHS	Avg. Intake Delay (days)		124	82	37	65
	Youth Enrolled		6	14	21	41
School	Avg. Intake Delay (days)		--	--	28	45
	Youth Enrolled		--	--	10	15
ORPARC	Avg. Intake Delay (days)				--	--
	Youth Enrolled				--	--
CCO	Avg. Intake Delay (days)				21	21
	Youth Enrolled				12	12
Unknown	Avg. Intake Delay (days)				26	26
	Youth Enrolled				6	6
Grand Total	Avg. Intake Delay (days)	19	56	48	33	41
	Youth Enrolled	26	100	169	232	527

(--) data suppressed for confidentiality, $n < 5$

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The Hope Scale

The Hope Scale is filled out by youth at enrollment and closure. The measure provides two subscores, Pathways and Agency, that range from 3-18, and a Total Hope Score that ranges from 6-36. Pathways represents a youth's perceived ability to set goals and identify concrete steps to achieve them. Agency is a youth's confidence, motivation, and belief that they can follow Pathways to achieve their goals. Together, these two sub-scores provide a Total Hope Score, with **higher scores indicating more hope**.¹ Table 7 shows that for each of the scales' individual items, subscales, and total score, statistically significant improvement is present.

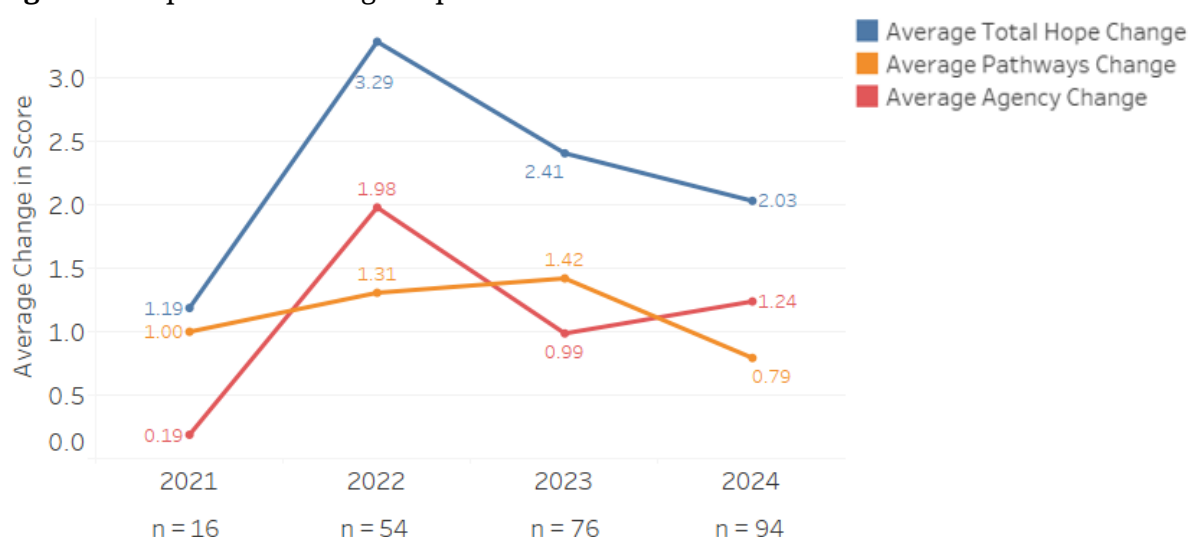
Table 7. Results of One-Sample T-Tests for the Hope Scale

	Mean Change
Agency Domain	1.39**
I think I am doing pretty well	0.45**
I am doing just as well as other kids my age	0.47**
I think the things I have done in the past will help me in the future	0.53**
Pathways Domain	1.23**
I can think of many ways to get the things in life that are most important to me	0.30**
When I have a problem, I can come up with lots of ways to solve it	0.47**
Even when others want to quit, I know that I can find ways to solve the problem	0.50**
TOTAL HOPE SCORE	2.62**

Asterisks denote statistically significant improvement between enrollment and discharge (* $p < 0.05$, ** $p < 0.001$)

Figure 2 below shows the Hope Scale average improvement from IIBHT enrollment to closure over time. During every year of IIBHT there was an improvement from enrollment to closure for the total Hope score, the Pathways score, and the Agency score.

Figure 2. Hope Scale Average Improvement Over Time



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The Ohio Scales

The Ohio Scales² are separately filled out by the clinician, parent, and youth and include five different subscales: The Problem Severity Scale, the Functioning Scale, the Hopefulness Scale, and the Satisfaction Scale.

The **Problem Severity Scale** measures the severity of the youth's mental health symptoms. The clinician, parent, and youth complete this scale. Scores on this scale range from 0-100 with **higher scores indicating more severe challenges**.

An analysis using Paired-Sample T Tests found that the overall domain pre- and post- scores for each rater demonstrated statistically significant improvement. When looking at item-level data, improvement is also statistically significant on almost every individual domain item, suggesting that IIBHT is helping youth improve on a wide variety of symptoms (**Table 8**).

Table 8. Results of One-Sample T-Tests for the Ohio Problem Severity Scale

	Mean Change		
	Clinician (n = 400)	Parent (n = 283)	Youth (n = 193)
Problem Severity Domain	-13.87**	-14.13**	-11.02**
Arguing with others	-0.83**	-0.82**	-0.58**
Getting into fights	-0.72**	-0.57**	-0.57**
Yelling, swearing, or screaming at others	-0.80**	-0.89**	-0.63**
Fits of anger	-0.97**	-1.04**	-0.63**
Refusing to do things teachers or parents ask	-0.92**	-0.96**	-0.69**
Causing trouble for no reason	-0.74**	-0.76**	-0.55**
Using drugs or alcohol	-0.08 ⁺	-0.13*	-0.08
Breaking rules or breaking the law	-0.65**	-0.62**	-0.34**
Skipping school or classes	-0.28**	-0.32**	-0.01
Lying	-0.69**	-0.85**	-0.43**
Can't seem to sit still, having too much energy	-0.50**	-0.66**	-0.37*
Hurting self	-0.61**	-0.51**	-0.54**
Talking or thinking about death	-0.82**	-0.76**	-0.79**
Feeling worthless or useless	-0.93**	-0.89**	-0.82**
Feeling lonely and having no friends	-0.76**	-0.79**	-0.63**
Feeling anxious or fearful	-0.82**	-0.88**	-0.61**
Worrying that something bad will happen	-0.79**	-0.72**	-0.71**
Feeling sad or depressed	-0.83**	-0.81**	-0.98**
Nightmares	-0.49**	-0.56**	-0.50**
Eating problems	-0.70**	-0.59**	-0.55**

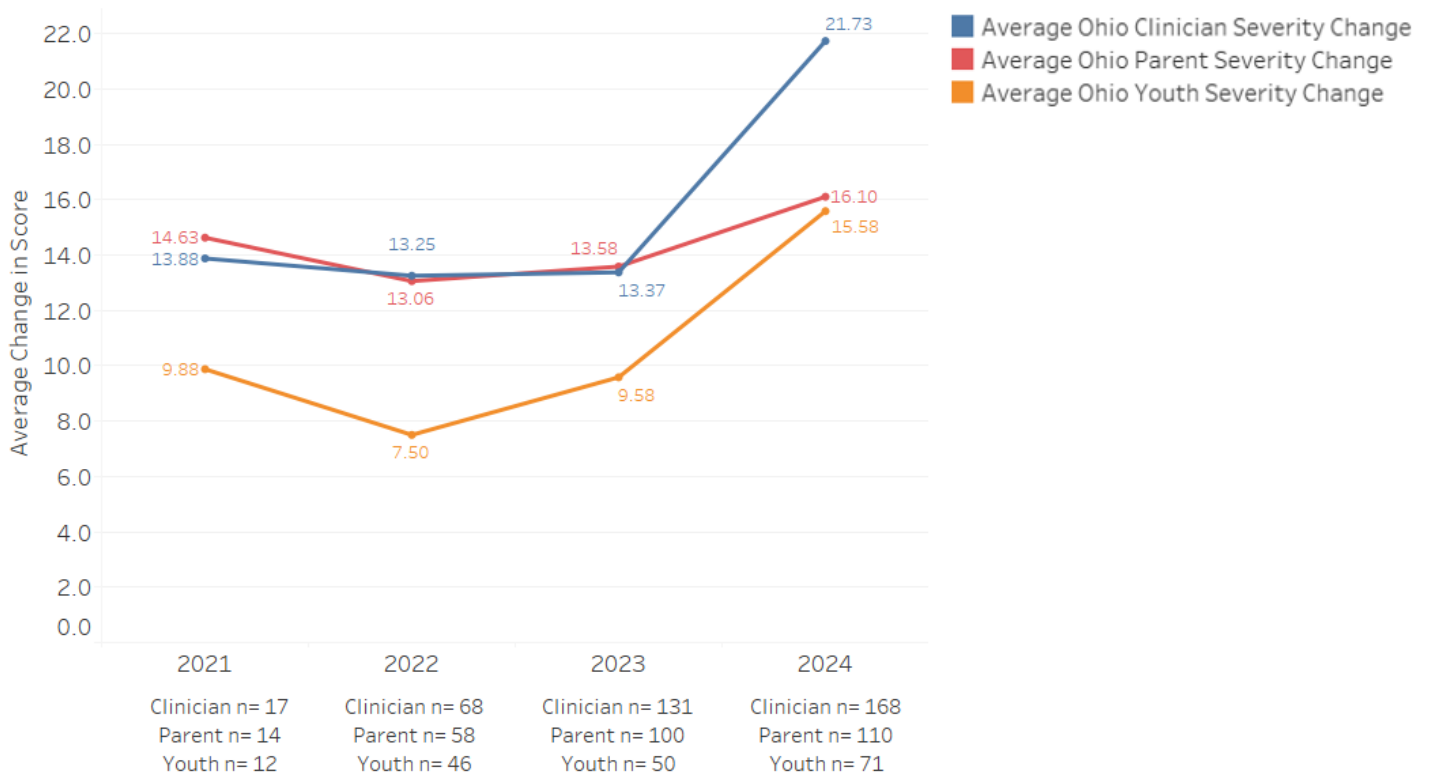
Asterisks denote statistically significant improvement between enrollment and discharge (* $p < 0.05$, ** $p < 0.001$)

+ symbol denotes marginally statistically significant improvement between enrollment and discharge ($p = 0.05$)

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Figure 3 below shows the Ohio Severity Scale average improvement from IIBHT enrollment to closure over time. During every year of IIBHT there was an improvement from enrollment to closure for the Clinician score, the Parent score, and the Youth score with the greatest levels of improvement observed in 2024.

Figure 3. Ohio Scale Severity Average Improvement Over Time



The **Functioning Scale** measures the youth's functional strengths and needs in areas of daily life. The clinician, parent, and youth complete this scale. Scores on this scale range from 0-80 with **higher scores indicating better functioning**.

An analysis using Paired-Sample T Tests found that the overall domain pre- and post- scores for each rater demonstrated statistically significant improvement. When looking at item-level data, improvement is also statistically significant on almost every individual domain item, suggesting that IIBHT is helping youth improve in a variety of functional activities (**Table 9**).

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Table 9. Results of One-Sample T-Tests for the Ohio Functioning Scale

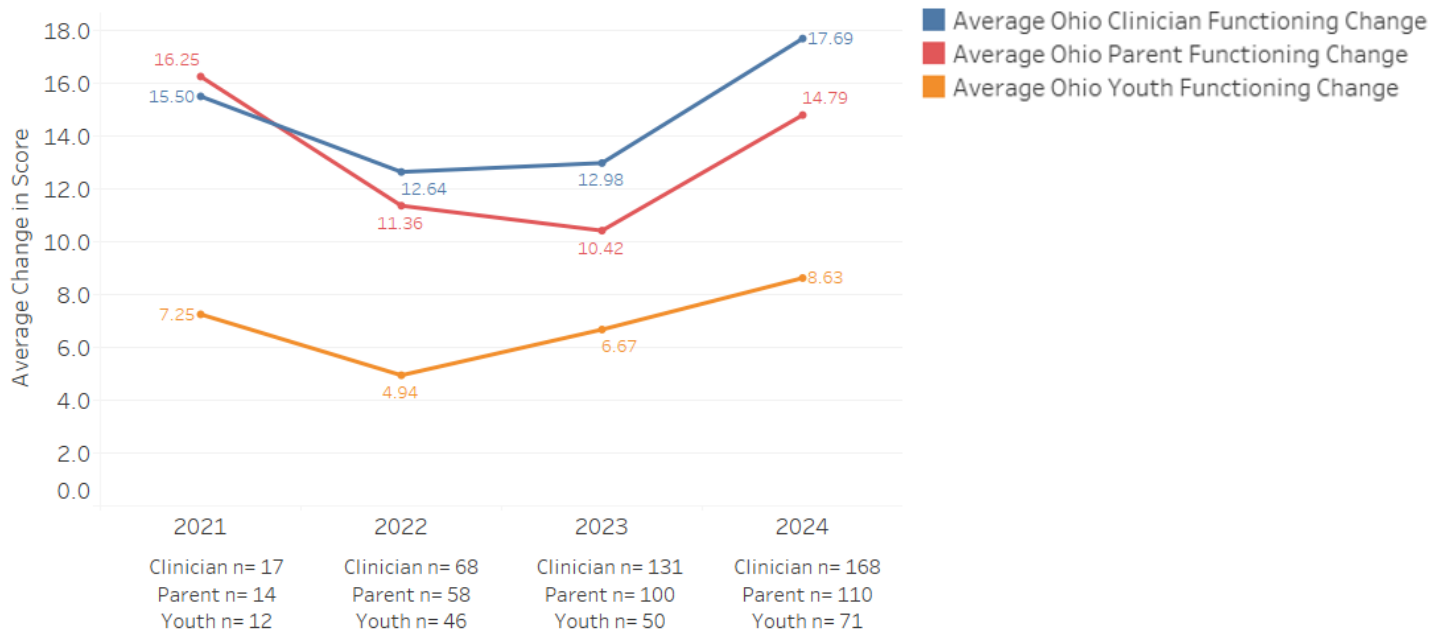
	Mean Change		
	Clinician (n = 400)	Parent (n = 271)	Youth (n = 182)
Functioning Domain	10.79**	11.41**	7.92**
Getting along with friends	0.52**	0.62**	0.24*
Getting along with family	0.64**	0.59**	0.59**
Dating or developing relationships with boyfriends or girlfriends	0.41**	0.46**	0.11
Getting along with adults outside the family	0.48**	0.48**	0.28*
Keeping neat and clean, looking good	0.29**	0.46**	0.29*
Caring for health needs and keeping good health habits	0.33**	0.54**	0.32**
Controlling emotions and staying out of trouble	0.85**	0.85**	0.52**
Being motivated and finishing projects	0.49**	0.68**	0.50**
Participating in hobbies	0.45**	0.37**	0.25*
Participating in recreational activities	0.44**	0.37**	0.37*
Completing household chores	0.50**	0.51**	0.48**
Attending school and getting passing grades	0.53**	0.64**	0.19*
Learning skills that will be useful for future jobs	0.51**	0.60**	0.37**
Feeling good about self	0.63**	0.61**	0.54**
Thinking clearly and making good decisions	0.73**	0.65**	0.54**
Concentrating, paying attention, and completing tasks	0.58**	0.66**	0.53**
Earning money and learning how to use money wisely	0.33**	0.44**	0.22*
Doing things without supervision or restrictions	0.68**	0.49**	0.46**
Accepting responsibility for actions	0.60**	0.73**	0.43**
Ability to express feelings	0.70**	0.66**	0.71**

Asterisks denote statistically significant improvement between enrollment and discharge (* $p < 0.05$, ** $p < 0.001$)

Figure 4 below shows the Ohio Functioning Scale average improvement from IIBHT enrollment to closure over time. During every year of IIBHT there was an improvement from enrollment to closure for the Clinician score, the Parent score, and the Youth score, with the greatest improvement for the Clinician and Youth scores observed in 2024 and the greatest improvement for the Parent score since 2021.

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Figure 4. Ohio Scale Functioning Average Improvement Over Time



The Ohio **Hopefulness Scale** measures hopefulness and well-being. The parent and youth complete this scale about themselves, and scores reflect the parent's self-reported hopefulness and well-being and the youth's self-reported hopefulness and well-being. Scores on this scale range from 4-24 with **higher scores indicating more hopefulness and well-being**.

An analysis using Paired-Sample T Tests found that the overall domain pre- and post- scores for both raters demonstrated statistically significant improvement. When looking at item-level data, improvement is also statistically significant on each individual domain item, suggesting that IIBHT is helping youth and parents feel more hopeful (**Table 10**).

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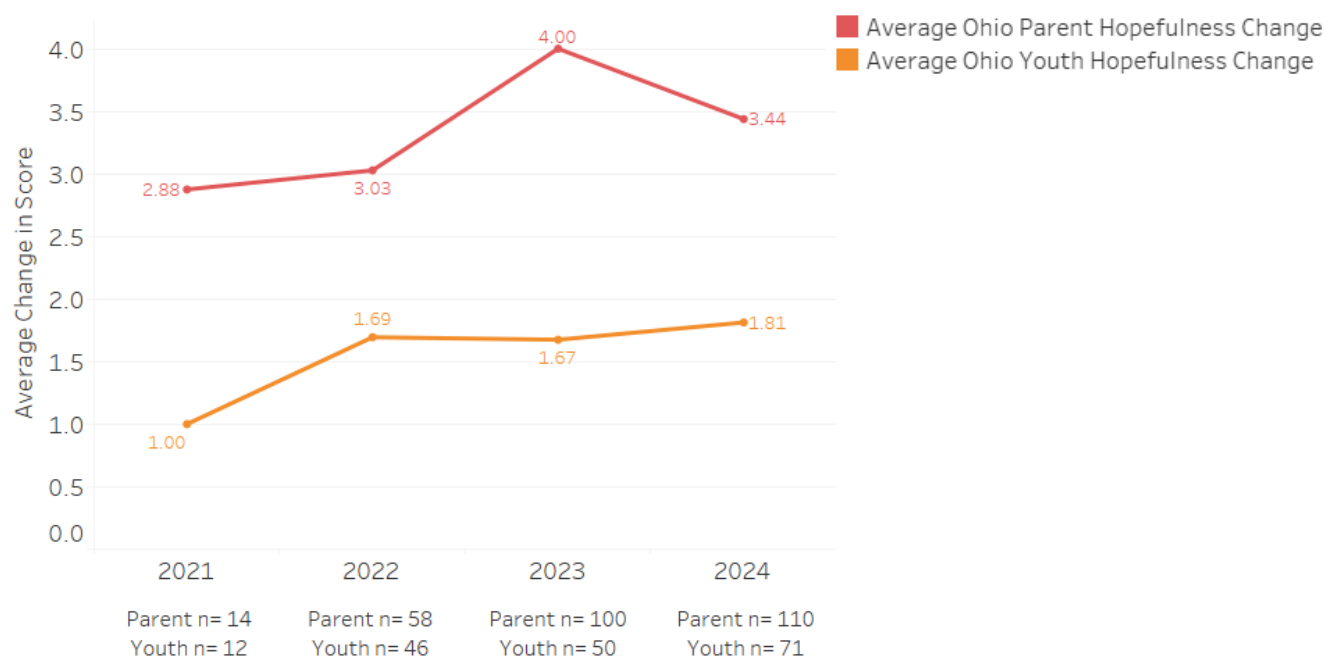
Table 10. Results of One-Sample T-Tests for the Ohio Hopefulness Scale

	Mean Change	
	Parent (n = 286)	Youth (n = 179)
Parent Hopefulness Scale	3.22**	
Parent is satisfied with youth/parent relationship	0.85**	N/A
Parent feels capable of dealing with your child's problems	0.97**	N/A
Parent has stress or pressure in their life	0.78**	N/A
Parent is optimistic about child's future	0.62**	N/A
Youth Hopefulness Scale		1.75**
Youth is satisfied with their life	N/A	0.54**
Youth feels energetic and health	N/A	0.36**
Youth has stress or pressure in their life	N/A	0.56**
Youth is optimistic about their future	N/A	0.30*

Asterisks denote statistically significant improvement between enrollment and discharge (* $p < 0.05$, ** $p < 0.001$)

Figure 5 below shows the Ohio Hopefulness Scale average improvement from IIBHT enrollment to closure over time. During every year of IIBHT there was an improvement from enrollment to closure for the Parent score and the Youth score with the greatest improvement observed in 2023 for the Parent score, and the greatest improvement observed in 2024 for the Youth score.

Figure 5. Ohio Scale Hopefulness Average Improvement Over Time



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The **Satisfaction Scale** measures satisfaction with services. The parent and youth both complete this scale; scores reflect the parent's satisfaction with services and the youth's satisfaction with services. Enrollment scores are likely to reflect experiences with past providers, while closure scores should reflect the family's experience with IIBHT. Scores on this scale range from 4-24 with **higher scores indicating more satisfaction**.

An analysis using Paired-Sample T Tests found that the overall domain pre- and post- scores for both raters demonstrated statistically significant improvement. When looking at item-level data, improvement is also statistically significant on each individual domain item, suggesting that IIBHT is helping youth and parents feel more satisfied with the services they receive, compared to when they entered the program (Table 11).

Table 11. Results of One-Sample T-Tests for the Ohio Satisfaction Scale

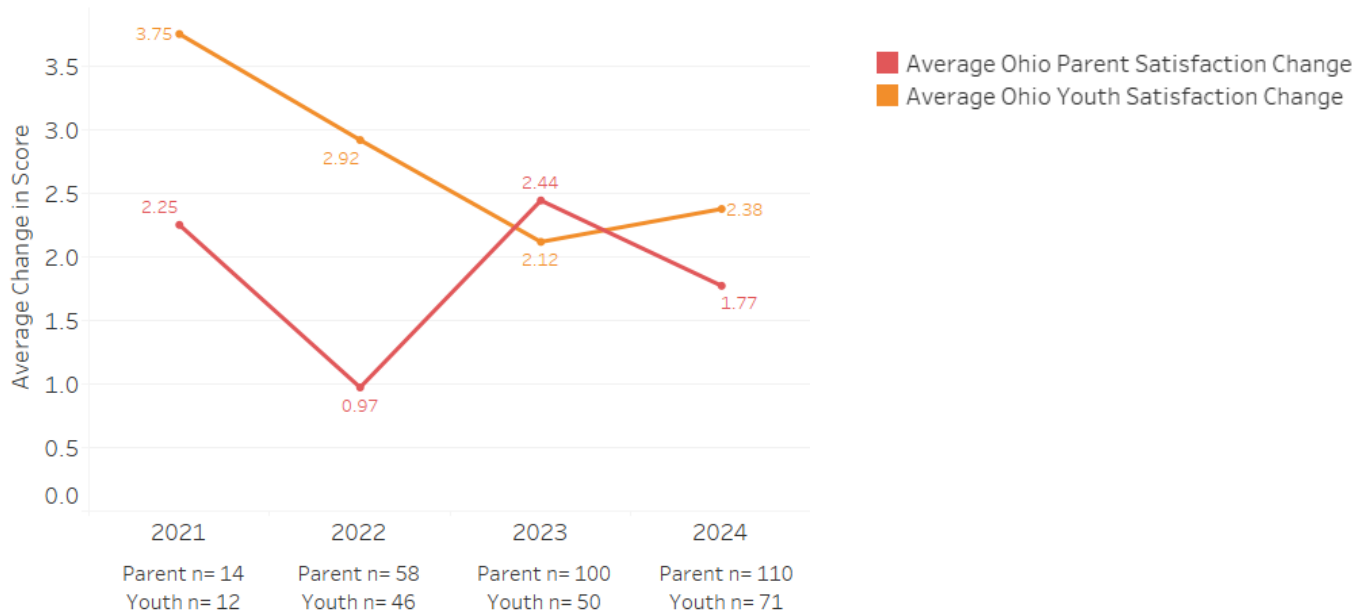
	Mean Change	
	Parent (n = 286)	Youth (n = 179)
Satisfaction Scale	1.99**	2.35**
Parent/child is satisfied with mental health services received	0.78**	0.56**
Parent/child is included in the treatment planning process	0.39**	0.58**
Mental health workers involved in the youth's case listen to and value the parent/youth's ideas	0.42**	0.54**
Treatment plan includes parent/youth's ideas about treatment needs	0.40**	0.67**

Asterisks denote statistically significant improvement between enrollment and discharge (* $p < 0.05$, ** $p < 0.001$)

Figure 6 shows the Ohio Satisfaction Scale average improvement from IIBHT enrollment to closure over time. During every year of IIBHT there was an improvement from enrollment to closure for the Parent score and the Youth score with the greatest improvement observed in 2023 for the Parent score, and the greatest improvement observed in 2021 for the Youth score.

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Figure 6. Ohio Scale Satisfaction Average Improvement Over Time



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Connection to Care and 6-month Recidivism Following Program Discharge

A statistical analysis of linked IIBHT program collected data and 2021-2023 Medicaid claims data is presented in this section. Claims data, which includes all billable services a youth receives through Medicaid, was used to assess outcomes for behavioral health recidivism and behavioral health services obtained during the 6 months after program discharge. Behavioral health recidivism includes any claim for a psychiatric inpatient (IP) hospitalization, or an emergency department (ED) and/or general IP hospital admission for behavioral health concerns. This analysis includes 190 youth who discharged from IIBHT prior to July 1, 2023, with linked Medicaid claims data in the 6-months after IIBHT discharge. Youth who left IIBHT after that timeframe could not be included for analysis, as 2024 Medicaid claims data is not yet available. **Appendix A** contains more information on study definitions and methodological details.

Key Takeaways:

- Most of the 190 youth who discharged IIBHT prior to July 1, 2023, with 6-month follow up Medicaid claims data were aged 13+ (56%), male (52%), and were non-Hispanic white (70%) with complex clinical histories including foster care (42%), trauma history (87%), suicidal ideation (55%), prior ED visits for mental health (50.5%) and NSSI (46%).
- At program closure, almost half were ready to transition to a lower level of care, approximately 10% needed a higher level of care, and 18% disengaged from care.
- 33 (18%) individuals were recommended for higher level of care behavioral health services compared to 177 (82%) who were not.

Sample Characteristics

Demographics

Most of the sample were aged 13+ (56%), male (52%), non-Hispanic White (70%), and around 97% of parents spoke English. **Table 12** describes the demographic characteristics, including sexual orientation and gender identity, for the sample of 190 youth. See **Appendix A Table 26** for CCO, clinical organization, and county information for this sample.

Clinical History and Past System Involvement

Around 41% of the sample had been in foster care, 13% used IDD services, and 10% had juvenile system involvement prior to IIBHT discharge. Most of the sample has a trauma history (87%), with over half with suicidal ideation (55%), a prior ED visit for behavioral health (50.5%), or NSSI (46%). **Table 13** describes system involvement and relevant clinical history identified on the program collected intake and closure forms.

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Table 12. Demographic Information of IIBHT Participants Discharged Before July 1, 2023 with Medicaid Claims Data (n = 190)

Age	
Mean (SD)	12.4 (3.00)
Median [Min, Max]	13.0 [5.00, 20.0]
Age Group	
<= 12 Years Old	84 (44.2%)
13+	106 (55.8%)
Sexual Orientation	
Heterosexual	93 (48.9%)
Not Heterosexual	59 (31.1%)
Unknown	38 (20.0%)
Gender	
Male	98 (51.6%)
Female	69 (36.3%)
Other	20 (10.5%)
Unknown	--
Race/Ethnicity	
Non-Hispanic White	133 (70.0%)
Other Race	16 (8.4%)
Hispanic	30 (15.8%)
Parent Language: English	183 (96.3%)

(--) data suppressed for confidentiality, $n < 5$

Note: small numbers ($5 \leq n < 12$) may be statistically unreliable; interpret with caution

Table 13. Clinical History and Past System Involvement of IIBHT Participants Discharged Before July 1, 2023 with Medicaid Claims Data (n = 190)

System Involvement	
IDD Services	25 (13.2%)
Juvenile Justice	19 (10.0%)
Foster Care	78 (41.1%)
Clinical History	
Trauma	165 (86.8%)
NSSI	87 (45.8%)
Suicidal Ideation	105 (55.3%)
Suicide Attempt	53 (27.9%)
Substance Use	41 (21.6%)
Prior ED visit	96 (50.5%)
Prior Hospitalization	63 (33.2%)

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Program Length, Closure Reason, and Recommended Level of Care

The mean program length was 137 days, ranging from 1-728 days (See Page 46 for additional analysis on program length). Upon program discharge (**Table 14**), around 47% were ready to transition to a lower level of care, 9.5% needed a higher level of care, and 18% disengaged from care. At IIBHT closure, 33 (17%) individuals were recommended for services of a higher level of care, compared to 157 (83%) who were not.

Table 14. Program Length, Closure Reason and Recommended Level of Care of IIBHT Participants Discharged Before July 1, 2023 with Medicaid Claims Data (n = 190)

Program Discharge Variables (n=190)	
Program Length (Days)	
Mean (SD)	137 (98.3)
Median [Min, Max]	119 [1.00, 728]
Closure Reason	
Ready for lower level of care	89 (46.8%)
Higher level of care needed	18 (9.5%)
Youth or family disengaged	35 (18.4%)
Other	48 (25.3%)
Recommended Level of Care	
Higher	33 (17.4%)
Same or Lower	157 (82.6%)

Level of Care Obtained During the 6 Months After IIBHT Discharge

Key Takeaways:

- In the 6 months after IIBHT discharge, 177 (93%) received lower level of care behavioral health services; 33 (17%) received higher level of care behavioral health services
- 92% of those recommended for a lower level of care received their recommended services in the 6-months after IIBHT discharge, compared to only 48% of those recommended for a higher level of care; this may highlight some of the difficulty and barriers with obtaining a higher level of care in Oregon

An assessment of the level of care obtained in the 6-months post IIBHT discharge is presented in this section. **Lower level of care behavioral health services** is defined as the range of all standard behavioral health outpatient services and supports available in outpatient settings (such as home, offices, schools, outpatient hospitals, clinics, community mental health centers, FQHRs, and telehealth). In comparison, **higher level of care** behavioral health services includes acute or sub-acute psychiatric hospitalizations, inpatient substance treatment, residential treatment, partial hospitalization, or therapeutic day treatment. **Appendix A** contains more information on determining the level of care

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obtained in the 6-months following IIBHT discharge. Please reach out to the authors for all algorithms and codes used for identifying the level of care for behavioral health services identified in Medicaid claims data.

The **level of care obtained** in the 6-months post discharge along with the percent of individuals that received their recommended level of care can be seen below in **Table 15**. Although 33 youth had a Medicaid claim for higher level of care in the 6-months after IIBHT discharge, only 48% of those recommended for a higher level of care actually obtained those services. In comparison, 92% of those recommended for a lower level of care accessed that level of care. This may highlight some of the difficulty and barriers with obtaining higher level of care services in Oregon; see page 8 for more discussion and implications of this finding.

Table 15. Level of Care for Behavioral Health Services Recommended and Services Obtained in the 6-Months Post IIBHT Discharge (n=190)

	Level of Care Recommended at discharge	Medicaid Claim in 6-months following discharge	Individuals Who Obtained their Recommended care	
BH Service Level of Care	N	N	N	%
Higher Level	33	33	16	48%
Lower Level	157	177	145	92%

Behavioral Health ED and IP Recidivism

Key Takeaways:

- 29 (15%) of youth who discharged IIBHT prior to July 1, 2023, with 6-month follow up Medicaid claims data had behavioral health recidivism (emergency department or inpatient hospitalization) in the 6-months following IIBHT discharge
- For those with behavioral health recidivism, time until first recidivism claim averaged 76 days

An analysis of **behavioral health recidivism** (including ED visits and hospitalizations), along with factors associated with recidivism in the 6 months following IIBHT discharge, is presented in this section. Behavioral health ED visits are defined as a Medicaid claim with place of service code for the ED and primary ICD-10 diagnosis code for a behavioral health concern. Behavioral health inpatient hospitalizations are defined as a Medicaid claim with place of service code at an acute psychiatric hospital or a general hospital with primary ICD-10 diagnosis code for a behavioral concern.

29 (15%) youth had a behavioral health ED visit or hospitalization in the 6-months following their program discharge. 24 (13%) youth went to the ED and 9 (5%) youth had an inpatient hospitalization. Of

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those 29 with behavioral health recidivism, time until ED or IP recidivism after program discharge averaged 76 days (range of 0-177 days), with 50% of recidivism occurring by day 67. **Table 16** below summarizes the behavioral health recidivism outcomes and time until ED, IP, and combined ED or IP recidivism.

Table 16. Behavioral ED and IP Recidivism and Time Until Occurrence in 6 months Post IIBHT Discharge (n=190)

6-Month Post IIBHT Discharge Recidivism			Time (in days) until Outcome			
	n	%	Mean	Min	Median	Max
Behavioral Health ED Visit	24	13%	71.21	0	50.5	177
Behavioral Health IP Visit	9	5%	57.57	0	75	110
Behavioral Health ED/IP Visit	29	15%	76.03	0	67	177

Note: small numbers ($5 \leq n < 12$) may be statistically unreliable; interpret with caution

Risk Factors for ED or IP Recidivism

Key Takeaways:

- Risk factors associated with increased behavioral health recidivism include ages 13+, non-cisgender identities, queer sexual orientations, history of suicide attempt, NSSI, or a prior psychiatric inpatient admission.
- Further study of increased sample size will be warranted once 2024 Medicaid claims data becomes available.

Demographic factors including age group (particularly those 13+), gender identity (particularly those who identify as non-cisgendered), and sexual orientation (particularly those who identify as queer) were associated with significantly higher rates of behavioral health recidivism. Clinical history for suicide attempt, NSSI, or a prior IP admission also were significantly associated with higher rates of behavioral health recidivism. Although this analysis did not find any other factors (such as system involvement or other clinical characteristics) to be associated with behavioral health recidivism, the small event occurrence (n=29) may make it difficult to detect a significant difference even if a relationship truly exists. To address this, further study of larger sample size will be warranted once Medicaid 2024 claims data is available. **Table 17** below details the counts, percentages, and p-values for all identified risk factors significantly associated with behavioral health recidivism; see **Appendix A Table 27** for detailed results for all variables assessed.

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Table 17. Risk Factors for Behavioral Health Recidivism: Results of Chi-square and Fisher's Exact Test

	6-Month Post IIBHT discharge BH ED/IP Visit		
	No (N=161)	Yes (N=29)	P-Value
Age Group			0.010*
<= 12 Years Old	78 (48.4%)	6 (20.7%)	
13+ Years Old	83 (51.6%)	23 (79.3%)	
Sexual Orientation			0.028*
Straight	82 (50.9%)	11 (37.9%)	
Not-Straight	44 (27.3%)	15 (51.7%)	
Unknown	35 (21.7%)	--	
Gender Identity			0.002**
M	90 (55.9%)	8 (27.6%)	
F	57 (35.4%)	12 (41.4%)	
Other	13 (8.1%)	7 (24.1%)	
Unknown	--	--	
Suicide Attempt History			0.047*
No	121 (75.2%)	16 (55.2%)	
Yes	40 (24.8%)	13 (44.8%)	
NSSI History			0.035*
No	93 (57.8%)	10 (34.5%)	
Yes	68 (42.2%)	19 (65.5%)	
Prior BH Hospitalization			
No	116 (72.0%)	11 (37.9%)	<0.001***
Yes	45 (28.0%)	18 (62.1%)	

* $p < .05$ ** $p < .01$ *** $p < .001$ (Two-Sided Test)

(--) data suppressed for confidentiality, $n < 5$

Note: small numbers ($5 \leq n < 12$) may be statistically unreliable; interpret with caution

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LGBTQ+ Youth Population

There is evidence that those who identify with the LGBTQ+ communities have increased risk for behavioral health issues, including suicidality. This section focuses on the subset of enrolled IIBHT youth between 2021 and 2024 who identify with the LGBTQ+ communities, to better understand factors associated with LGBTQ+ identities compared to youth who identify as straight/heterosexual.

For this analysis, IIBHT youth were categorized into one of two categories: straight cis-gendered individuals and those who identify with the LGBTQ+ population. For this study, straight youth are defined as those who identify as both straight and with a gender identity that matches their assigned sex at birth (i.e. male or female). LGBTQ+ youth are defined as either having a non-cisgender identity (i.e. those whose gender identity does not match their assigned sex at birth, such as trans, non-binary, or gender fluid) or whose sexual orientation is identified as anything other than straight. **Appendix B** contains more information on study definitions and methodological details.

Sample Characteristics

Key Takeaways

- Of 511 youth enrolled between 2021-2024 included for study, 184 (36%) identified with the LGBTQ+ community compared to 327 (64%) who identify as cis-gendered and straight.
- Straight IIBHT youth were more likely to be male (68%) compared to only 23% who identified with the LGBTQ+ community

A subset of 511 IIBHT youth enrolled between 2021 and 2024 were included for analysis. A total of 184 (36%) youth identified as LGBTQ+ compared to 327 (64%) who identified as cis-gendered and straight. The majority of those who identified as straight were male (68%) compared to female (32%). In contrast, those with LGBTQ+ identities were predominantly female (42%) or non-cisgendered (34%), with only 23% identifying as male. **Table 18** below details the sample's gender identities by LGBTQ+ status.

Table 18. Gender Identities for Subset of IIBHT 511 youth Enrolled Between 2021-2024 by Straight vs LGBTQ+ Identities

	Straight	LGBTQ+
Gender Identity	(N=327)	(N=184)
Female	105 (32.1%)	78 (42.4%)
Male	222 (67.9%)	42 (22.8%)
Non-cisgendered	--	62 (33.7%)
Unknown	--	--

All but 6 counties are represented in this sample, with majority of youth from Youth Villages (27%) and Options for Southern Oregon (16%). For CCOs, Eastern Oregon (15%) and Health Share of Oregon (14.5%) was most prominent. 74% of the sample were aged 13+ years old at enrollment, with average age around 12 years old. Most were enrolled in K-12 (88%), had been in foster care (62%), and were non-Hispanic

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white (74%). The most common diagnoses were ADHD (49%) and trauma and stressor-related disorders. High rates of trauma (87%), past ED visits for mental health (49%), and history for suicidality were also prevalent (55% ideation, 40% NSSI, 31% attempt). See **Appendix B Table 28** for more detailed information on all CCOs, clinical organizations, counties, demographics, referral information, presenting issues, and clinical history (including services accessed in the year prior to IIBHT intake) analyzed for this sample.

Factors Associated with LGBTQ+ Identities

Key Takeaways:

- LGBTQ+ youth enrolled in IIBHT between 2021-2024 had acute presenting issues with complex clinical histories which require special consideration.
- Compared to 30% of straight youth, almost 50% of LGBTQ+ youth were referred into IIBHT with higher acuity issues: including discharge from a higher level of care (including residential treatment), or at immediate risk of psychiatric hospitalization or removal from the home.
- LGBTQ+ youth were associated with higher rates of depressive disorders, trauma and stressor related disorders, suicidal ideation at program intake, prior mental health ED visits, substance use history, past IOP (or similar level of care such as CATS, EASA, or BRS), and mental health outpatient services (including outpatient therapy, psychiatry, and medication management) in the year prior to IIBHT intake compared to those who identified as straight and cis-gendered.

Unadjusted Analysis

This section presents factors that are found to be significantly associated with LGBTQ+ identities for the subset of 511 IIBHT youth enrolled between 2021-2024. Unadjusted associations only account for differences by a single factor, without accounting for any other potential confounders. The results from this unadjusted analysis can help bring light to potential inequities or disparities that may exist for IIBHT youth enrolled between 2021-2024 with LGBTQ+ identities.

Results

Among individuals aged 13+ enrolled in IIBHT, more identified as LGBTQ+ (80%) compared to straight (70%). At the time of IIBHT enrollment, LGBTQ+ individuals were less likely to be currently enrolled in some form of schooling (85%) compared to straight individuals (91%).

Overall, those who identified as LGBTQ+ had more acute issues with complex clinical histories. Compared to 30% of straight youth, almost 50% of LGBTQ+ youth were referred into IIBHT with higher acuity issues: including discharge from a higher level of cares (including residential treatment) or is at immediate risk of psychiatric hospitalization or removal from the home. Additionally, LGBTQ+ youth were more likely to have suicidal ideation at program intake (70%) compared to straight youth (46%). LGBTQ+ youth had greater rates of past suicide attempts (46% vs 23%), and histories for substance use (30% vs 15%), suicidal ideation (70% vs 46%), and NSSI (50% vs 34%) compared to straight youth.

In the year leading up to IIBHT intake, LGBTQ+ youth had more mental health ED visits (65% vs 40%),

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mental health inpatient hospitalizations (46% vs 23%), services for intensive outpatients or similar level of care such as CATS, EASA, or BRS (20% vs 10%), and mental health outpatient services including outpatient therapy, psychiatry, and medication management (51% vs 37%) compared to straight youth. Lastly, LGBTQ+ youth had higher rates of depressive disorders (52% vs 29%), anxiety disorders (42% vs 30%), and trauma and stressor-related disorders (56% vs 45%) compared to straight youth. **Table 19** below details more specific information for all factors found to be associated with LGBTQ+ identities for the subset of IIBHT youth included in this analysis. See **Appendix B Table 29** for all results of the unadjusted analysis, including variables not found to be significantly associated with LGBTQ+ population.

Table 19. Identified Demographic and Clinical Factors Related to LGBTQ+ Identities: Chi-square Test Results

	Straight (N=327)	LGBTQ+ (N=184)	P-value
Age Group			
<= 12 years old	99 (30.3%)	36 (19.6%)	0.011*
13+ Years old	228 (69.7%)	148 (80.4%)	
School Status			
Not Enrolled	28 (8.6%)	28 (15.2%)	0.031*
Current Enrolled	299 (91.4%)	156 (84.8%)	
Presenting Referral Issue			
1 = Youth is at immediate risk of psychiatric hospitalization or removal from home due to emotional and mental health conditions	39 (11.9%)	30 (16.3%)	<0.001***
2 = Youth may require residential treatment or youth is discharging from residential treatment or higher levels of care	63 (19.3%)	60 (32.6%)	
3 = Youth exhibits behavior that indicates high risk of developing conditions of a severe or persistent nature	99 (30.3%)	48 (26.1%)	
4 = Youth is experiencing a mental health condition(s) but not requiring hospitalization/removal from home	120 (36.7%)	40 (21.7%)	
Missing	6 (1.8%)	6 (3.3%)	
Anxiety Disorder			
Yes	97 (29.7%)	77 (41.8%)	0.007**
No	230 (70.3%)	107 (58.2%)	
Depressive Disorder			
Yes	96 (29.4%)	96 (52.2%)	<0.001***
No	231 (70.6%)	88 (47.8%)	
Trauma and Stressor-related Disorder			
Yes	146 (44.6%)	103 (56.0%)	0.018*
No	181 (55.4%)	81 (44.0%)	
Current Suicidal Ideation			
Yes	51 (15.6%)	62 (33.7%)	<0.001***

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No	276 (84.4%)	122 (66.3%)	
Past IOP or similar level of care			
Yes	33 (10.1%)	36 (19.6%)	0.004**
No	294 (89.9%)	148 (80.4%)	
Past Mental Health Outpatient Services			
Yes	121 (37.0%)	94 (51.1%)	0.003**
No	206 (63.0%)	90 (48.9%)	
Prior mental health ED visit			
Yes	130 (39.8%)	120 (65.2%)	<0.001***
No	197 (60.2%)	64 (34.8%)	
Prior Suicide Attempt			
Yes	74 (22.6%)	85 (46.2%)	<0.001***
No	253 (77.4%)	99 (53.8%)	
Prior Psychiatric Hospitalization			
Yes	91 (27.8%)	84 (45.7%)	<0.001***
No	236 (72.2%)	100 (54.3%)	
Prior Substance Use			
Yes	50 (15.3%)	54 (29.3%)	<0.001***
No	277 (84.7%)	130 (70.7%)	
Prior Suicidal Ideation			
Yes	151 (46.2%)	128 (69.6%)	<0.001***
No	176 (53.8%)	56 (30.4%)	
Prior NSSI			
Yes	111 (33.9%)	93 (50.5%)	<0.001***
No	216 (66.1%)	91 (49.5%)	

* $p < .05$ ** $p < .01$ *** $p < .001$ (Two-Sided Test)

Note: small numbers ($5 \leq n < 12$) may be statistically unreliable; interpret with caution

Adjusted Analysis

Unlike the unadjusted analysis presented in the section above, adjusted analyses accounts for multiple factors simultaneously when exploring potential relationships with LGBTQ+ identities for this sample. For this section, using LGBTQ+ status (0=Straight, 1=LGBTQ+) as the outcome of interest, a variable selection algorithm called best subsets selection is utilized to determine what combination of factors best explain the variation in LGBTQ+ or straight identities.

Table 20 displays the final model results, including the estimated odds-ratios (OR) and 95% confidence intervals for all factors identified in the adjusted analysis. Like the unadjusted analysis, those with **depressive disorders** (Odds ratio (OR)=1.71, $p=0.018$), **trauma and stressor-related disorders** (OR=1.81, $p=0.005$), **current suicidal ideation** at program intake (OR=2.1, $p=0.004$), **past IOP** or similar level of care (OR=1.98, $p=0.023$), **past outpatient mental health services** (OR=1.56, $p=0.042$), **prior mental health ED** visits (OR=1.86, $p=0.015$), and **past substance use** (OR=1.71, $p=0.045$) were all significantly associated with increased odds for LGBTQ+ compared to those who identify as straight, after

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adjustment for multiple factors.

Although age group, school enrollment status, referral source, both current and prior substance use, and maximum referral issue were not significantly associated with LGBTQ+ identities after adjustment, the variable selection algorithm found that including those variables still helps explain some of the variation in LGBTQ+ or straight identities. Further study is warranted for better understanding potential reasons and mechanisms by which those factors relate to LGBTQ+ status.

Table 20. Model Results for Final Adjusted Model Determined by Best-subsets Regression for Characteristics that Explain LGBTQ+ Identities for the Subset of n=511 IIBHT Youth Enrolled Between 2021-2024

Characteristic	OR ¹	95% CI ¹	P
Age Group			
<= 12 years old	—	—	
13+ years old	1.52	0.94, 2.48	0.092
School Status			
Not Enrolled	—	—	
Current Enrolled	0.65	0.34, 1.23	0.2
Referral Source			
(Sub)Acute/Res/ED/Crisis Center	—	—	
Mobile Crisis/IOP/Etc	0.58	0.20, 1.62	0.3
Outpatient SOC	1.52	0.82, 2.84	0.2
Other	0.97	0.47, 2.00	>0.9
Anxiety Disorder			
No	—	—	
Yes	1.44	0.93, 2.22	0.1
Depressive Disorder			
No	—	—	
Yes	1.71	1.09, 2.69	0.018*
Trauma and Stressor-Related Disorder			
No	—	—	
Yes	1.81	1.20, 2.76	0.005**
Current Substance Use			
No	—	—	
Yes	0.59	0.28, 1.21	0.2
Current Suicidal Ideation			
No	—	—	
Yes	2.1	1.27, 3.48	0.004**
Past IOP or similar level of care			
No	—	—	
Yes	1.98	1.10, 3.57	0.023*

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Past Mental Health Outpatient Services			
No	—	—	
Yes	1.56	1.02, 2.41	0.042*
Prior mental health ED visit			
No	—	—	
Yes	1.86	1.13, 3.07	0.015*
Prior Suicide Attempt			
No	—	—	
Yes	1.54	0.91, 2.59	0.11
Prior Substance Use			
No	—	—	
Yes	1.71	1.01, 2.88	0.045*
Maximum ² Presenting Referral Issue			
1 = Youth is at immediate risk of psychiatric hospitalization or removal from home due to emotional and mental health conditions	—	—	
2 = Youth may require residential treatment or youth is discharging from residential treatment or higher levels of care	1.45	0.74, 2.89	0.3
3 = Youth exhibits behavior that indicates high risk of developing conditions of a severe or persistent nature	1.02	0.52, 2.04	>0.9
4 = Youth is experiencing a mental health condition(s) but not requiring hospitalization/removal from home	0.73	0.37, 1.43	0.4
¹ OR = Odds Ratio, CI = Confidence Interval ² Youth can have multiple referral issues selected, the maximum corresponds to the most severe issue * $p < .05$ ** $p < .01$ *** $p < .001$ (Two-Sided Test)			

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Length of Time Enrolled in IIBHT

A statistical analysis exploring program length for IIBHT youth who discharged the program by the end of 2024 is presented in this section. This analysis uses complete program collected enrollment and closure data for n=465 individuals. The data describes the distribution of program length and explore potential relationships between various factors (including demographics, presenting issues, clinical history, major events, closure reason, connection to care at program discharge, and barriers to care). Additional details on methodology and results can be found in **Appendix C**.

Key Takeaways:

- IIBHT youth who discharged by the end of 2024 had high rates of foster care involvement (60%), ADHD (51%), and trauma and stressor-related disorders (50%).
- IIBHT youth had complex clinical histories, including high rates of trauma (87%) and past suicidality or NSSI (ideation at 55%, NSSI at 43%, attempt at 28%).
- Closure reasons varied with close to half of IIBHT youth ready to transition to a lower level of care (49%), compared to 10% needing a higher level of care, and 19% disengaging from IIBHT services.
- Although 67% reported some connection to care at discharge, close to every 4 out of 5 youth reported barriers to obtaining their recommended level of care.

Sample Characteristics

Demographics and Referral Information

Youth who discharged from IIBHT on or before December 31, 2024 were predominantly 13+ years old (74%), male (54%), non-Hispanic White (73%), and currently enrolled in some form of school (91%). Almost 60% of the sample had current or past foster care placements at IIBHT intake. Most (60%) were referred into IIBHT via the outpatient system of care; 13.5% of the sample were referred into the program due to an immediate risk for a psychiatric inpatient admission or removal from their home. **Table 21** below details all demographic and referral information examined. Additional CCO, county, and program information can be found in **Appendix C Table 30**.

Table 21. Demographic and Referral Information for IIBHT Youth Discharged by December 31, 2024 (n=465)

Demographics and Referral Information (N=465)	
Age Group	
<= 12 years old	120 (25.8%)
13+ Years old	345 (74.2%)
Sexual Orientation	
LGBTQ+	122 (26.2%)

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Straight	238 (51.2%)
Unknown	105 (22.6%)
Gender Identity	
F	173 (37.2%)
M	249 (53.5%)
Other	43 (9.2%)
Race/Ethnicity	
Hispanic or Other Race	126 (27.1%)
Non-Hispanic White	339 (72.9%)
School Status	
Not Enrolled	43 (9.2%)
Currently Enrolled	422 (90.8%)
Foster Care	
Never	187 (40.2%)
Current or past	278 (59.8%)
Referral Source	
(Sub)Acute/Residential/ED/Crisis Center	71 (15.3%)
Mobile Crisis/IOP/BRS	33 (7.1%)
Standard Outpatient System of Care ^a	277 (59.6%)
Other	84 (18.1%)
Presenting ^b Referral Issue	
1 = Youth is at immediate risk of psychiatric hospitalization or removal from home due to emotional and mental health conditions	63 (13.5%)
2 = Youth may require residential treatment or youth is discharging from residential treatment or higher levels of care	110 (23.7%)
3 = Youth exhibits behavior that indicates high risk of developing conditions of a severe or persistent nature	150 (32.3%)
4 = Youth is experiencing a mental health condition(s) but not requiring hospitalization/removal from home	142 (30.5%)
^a Standard outpatient system of care includes outpatient services for mental health therapy, psychiatry or medication management, and school based mental health services	
^b Youth can have multiple referral issues selected, the maximum referral issue is the highest acuity issue	

Presenting Issues and Clinical History

The most common diagnoses for IIBHT youth who discharged by the end of 2024 were ADHD (51%) and trauma and stressor-related disorders (50%). Almost 87% had a trauma history, with high rates of past suicidality (ideation 55%, attempt 28%), NSSI (43%), and prior mental health ED visits (47%). Close to half the sample received some sort of outpatient mental health services in the year before IIBHT intake. **Table 22** below details all presenting issues, clinical history, and prior behavioral health services examined.

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Table 22. Presenting Issues and Clinical History for IIBHT youth Discharged by December 31, 2024 (n=465)

Presenting Issues and Clinical History (N=465)	
Diagnoses ^a	
Attention-Deficit/Hyperactivity Disorder	236 (50.8%)
Trauma and Stressor-related Disorder	235 (50.5%)
Anxiety Disorder	154 (33.1%)
Depressive Disorder	162 (34.8%)
Disruptive Impulse Control/Conduct Disorder	87 (18.7%)
Autism Spectrum Disorder	64 (13.8%)
Other Neurodevelopmental Disorder (ex: IDD)	37 (8.0%)
Feeding & Eating Disorder	15 (3.2%)
Other Diagnosis (ex: bipolar, dissociative, etc.)	48 (10.3%)
Presenting Issues	
Suicidal Ideation	101 (21.7%)
NSSI	79 (17.0%)
Substance Use	38 (8.2%)
Clinical History	
Trauma	404 (86.9%)
Substance Use	78 (16.8%)
Suicidal Ideation	254 (54.6%)
NSSI	198 (42.6%)
Suicide Attempt	130 (28.0%)
Mental Health ED Visit in last year	216 (46.5%)
Psychiatric Hospitalization in the Last Year	147 (31.6%)
Services Accessed during the year prior to IIBHT intake	
(Sub)Acute/Residential Treatment	37 (8.0%)
Day treatment or partial hospitalization	43 (9.2%)
Similar level of care to IIBHT ^b	72 (15.5%)
Substance Treatment or Juvenile Justice	18 (3.9%)
Wraparound	79 (17.0%)
Standard Outpatient System of Care ^c	220 (47.3%)
^a Youth can have multiple types of diagnoses recorded ^b Services of similar level of care (LOC) to IIBHT includes EASA, CATS, BRS, or IOP ^c Standard outpatient system of care includes outpatient services for mental health therapy, psychiatry or medication management, and school based mental health services	

Closure Form

Over half of the sample experienced some sort of major event during the program (55%). Closure reasons varied, with 10% of youth needing a higher level of care compared to 49% who were ready to transition to a lower level of care; 19% of the sample stopped engaging with IIBHT altogether. At program discharge, 67% reported a connection to their recommended level of care. Close to 4 in 5 youth reported at least 1

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barrier to obtaining their recommended level of care, with most common barriers due to the youth and family either unable to engage with services or declining services, even when clinically indicated (15% and 21%, respectively). **Table 23** below details all closure form variables assessed.

Table 23. Closure Form Variables Including Closure Reason, Major Events During Program, and Barriers and Connection to Care for IIBHT Youth Discharged by December 31, 2024 (n=465)

Closure Form (N=465)	
Closure Reason	
Higher level of care needed	48 (10.3%)
Ready to transition to lower level of care	228 (49.0%)
Moved	9 (1.9%)
Other	58 (12.5%)
Stable/No need for services	8 (1.7%)
Stopped Engaging	89 (19.1%)
Unknown	25 (5.4%)
Major Events during Program	
Any	260 (55.9%)
Problematic Behaviors ^a	98 (21.1%)
Self-harm	44 (9.5%)
ED or IP admission for mental health	101 (21.7%)
Other	124 (26.7%)
Connected to care at program discharge?	
Yes	312 (67.1%)
No	153 (32.9%)
Barriers to obtaining recommended level of care at closure	
Limited access to providers	39 (8.4%)
Insurance/Coverage barriers	11 (2.4%)
Other financial barriers	7 (1.5%)
Diagnosis preventing acceptance	30 (6.5%)
Youth/ family unable to engage	69 (14.8%)
Youth/ family declined further services	97 (20.9%)
Family did not specify	9 (1.9%)
Not Listed ^b	77 (16.6%)
Other Barriers	43 (9.2%)
No reported Barriers	84 (18.1%)
Unknown	89 (19.1%)

^a Problematic behaviors include substance use, running away from home, expulsion from school, or new juvenile justice interaction

^b Old-closure form (prior to Q3 2023) barriers to care including: family concerned about system involvement or family intends to make appointment but choosing not before closing

Note: small numbers (5 ≤ n < 12) may be statistically unreliable; interpret with caution

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Program Length

Key Takeaways

- Program length ranged from 8-917 days with some extreme outliers; 96% of the sample enrolled for less than 400 days.
- Average program length for the entire sample was around 153 days, compared to 139 days for the sub-sample of those enrolled less than 400 days.

For the entire sample, average program length was around 153 days (ranging 8-917 days). 75% of youth were enrolled in the program for 198 days. Due to the presence of extreme outliers in program length, a sub-sample of youth enrolled in the program for less than 400 days (n=448, 96% of original sample) was also examined. **Figure 7** below displays histograms and boxplots of the distribution for program length for the entire sample (n=465), and the sub-sample (n=448).

Figure 7. Histograms and Boxplots of Program Length (in days) for Entire Sample (n=465) and those Enrolled less than 400 days (n=448)

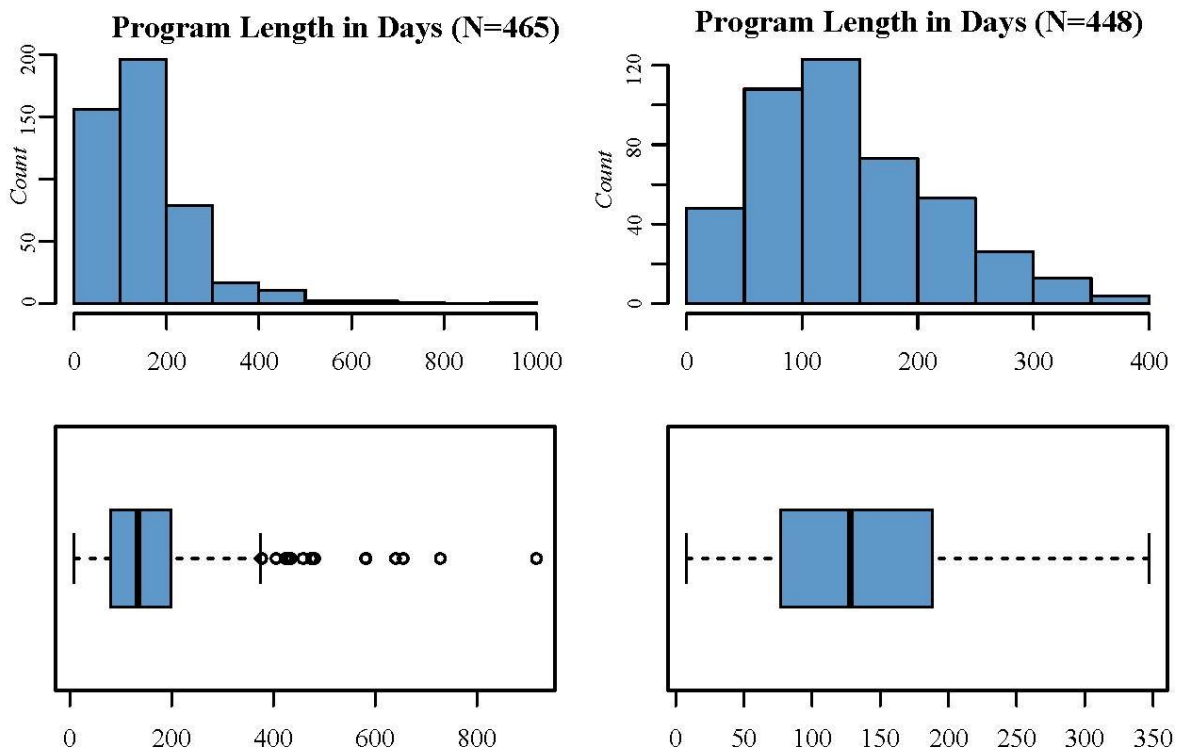


Table 24 below displays the summary measures of program length for the full-sample and sub-sample of youth enrolled in IIBHT less than 400 days. For those enrolled 400 days or less, the distribution of program length is approximately normal (p-value 0.08) compared to the full sample (p-value < 0.001)

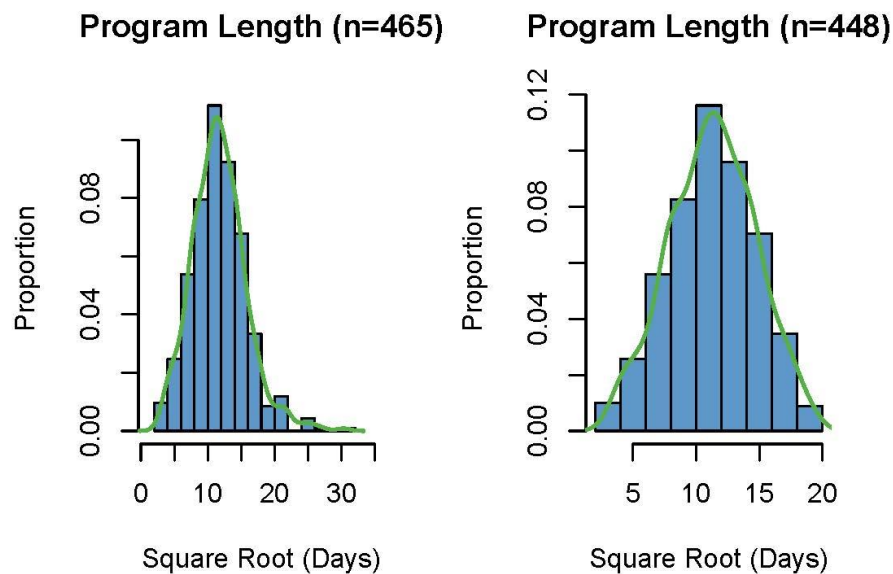
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Table 24. Summary Measures for Program Length in Days and Normality Assessment via Shapiro-Wilks Test for IIBHT Youth Discharged by December 31, 2024.

Program length (in days) summary and results of Shapiro-Wilks test for normality								
	Mean	SD	Min	Q1	Median	Q3	Max	P-values ^a
Full Sample (n=465)	153.4	77.65	8.0	80.0	134.0	198.0	917.0	<0.001***
Program Length ≤ 400 (n=448)	139.0	109.3	8.0	77.0	128.0	187.5	377.0	0.080
^a Shapiro-Wilks test result performed on the square root of program length due to right-skew								
* p < .05 ** p < .01 *** p < .001 (Two-Sided Test); SD = Standard Deviation; Q1= First Quartile; Q3= Third Quartile								

Since program length is right-skewed, meaning few individuals have much longer program lengths than most of the sample, a square root transformation on program length was also examined (**Figure 8**). Since the presence of extreme outliers can have major influence and lead to biased results, all statistical tests and their resulting p-values presented in this section were performed on the square-root of program length.

Figure 8. Histograms and Density Curve for Square Root of Program Length (in days) for Entire Sample (n=465) and those Enrolled less than 400 days (n=448)



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Factors Associated with Program Length

Key Takeaways

- Those without substance use issues at intake, those with neurodevelopmental disorders (such as IDD), services including IOP's or similar level of care in the year prior, and those with connection to care at program discharge, and those ready to transition to a lower level of care at closure are all significantly associated with higher mean program lengths.
- Those with substance use issues at intake, those needing a higher level of care at closure, those who disengaged from care, those without a connection to care at program discharge and barriers for youth/family declining services are significantly associated with lower mean program lengths.

This section explores factors that may be associated with differences in mean program length for youth discharged prior to December 31, 2024. For the full (n=465) and sub-sample (n=448) of youth enrolled less than 400 days, **substance use** at IIBHT intake, **neurodevelopmental disorders**, **prior IOP or similar services** (such as CATS, EASA or BRS) in the year prior to intake, major events for those **ready to transition to lower levels of care** and having **connection to the recommended level of care** at discharge were all associated with increased mean program length. In contrast, those needing a **higher level of care**, those who **disengaged from care**, those with **barriers for declining services** or those **without connection to care** were associated with lower mean program lengths.

For the entire sample, those who did not receive standard outpatient mental health services in the year prior to IIBHT intake had a significantly lower mean program length of 142 days compared to 166 days for those who did have outpatient services in the year prior. However, this result was heavily influenced by the presence of extreme outliers as the sub-sample for those enrolled less than 400 days no longer was significantly different (p-value 0.18).

Table 25 summarizes the mean, standard deviation, and median program length, and p-values for all program collected variables found to be significantly related with differences in mean program length for the entire sample (n=465) and the sub-sample (n=448) of youth enrolled less than 400 days; see **Appendix C Table 31** for all results including both statistically significant and non-significant factors.

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Table 25. Factors Associated with Differences in Mean Program Length for Complete Sample (n=465) and Sub-sample Enrolled for 400 Days or Less (n=448): 2-Sample T-Test and ANOVA Type II Results

Factors with Significant ^a Differences in Mean Program Length											
		N=465, Full Sample					N=448, Program Length <= 400 days				
Variable		n	Mean	SD	Median	P-value	n	Mean	SD	Median	P-value
Current Substance Use	No	427	156	111	137	0.021*	411	141	79	133	0.021*
	Yes	38	120	79	106		37	112	62	105	
Neuro-developmental Disorder	No	428	150	108	128	0.026*	414	136	76	125	0.043*
	Yes	37	194	115	181		34	171	87	156.5	
Services similar ^b LOC to IIBHT in year Prior	No	393	147	106	127	0.007**	382	135	75	124	0.027*
	Yes	72	188	123	169.5		66	162	88	155	
Outpatient Services in Year Prior	No	245	142	92	127	0.042*	239	134	76	119	0.188
	Yes	220	166	125	138.5		209	145	79	133	
Closure Reason	Lower/Stable	236	177	104	157	<0.001***	229	165	72	154	<0.001***
	Higher	48	142	100	109		47	136	91	107	
	Other	67	122	107	98		65	108	69	98	
	Stop Engage	89	118	100	89		85	101	64	85	
	Unknown	25	162	155	122		22	115	83	85	
Connected to care at program closure	No	153	142	113	109	<0.028*	146	124	77	108.5	0.002**
	Yes	312	159	107	138.5		302	146	77	137	
Declined Services	No	368	160	101	141.5	<0.001***	355	148	77	139	<0.001***
	Yes	97	127	134	91		93	105	71	88	
[*] <i>p</i> < .05 ^{**} <i>p</i> < .01 ^{***} <i>p</i> < .001 (Two-Sided Test); SD = Standard Deviation											
^a Non-significant results can be seen in Appendix C ; note, statistical testing performed on the square-root of program length											
^b Services of similar level of care (LOC) to IIBHT includes EASA, CATS, BRS, or IOP											
^c Outpatient services include: Mental health counseling, psychiatric care/medication management, or school- based mental health services											

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Summary

Overall, youth enrolled in IIBHT services statewide in 2024 have highly complex behavioral health needs. Most (83%) youth have a trauma history; 36% have previously been or are currently in foster care; over half (52%) are identified as significantly impaired due to mental health challenges; and 65% have a history of suicidality or self-harm. IIBHT was developed to serve this population because systems gaps and barriers were preventing these high acuity youth from receiving the care they need. The data presented in this year's report continues to confirm that IIBHT is providing the right type and intensity of services to the population it was intended to serve.

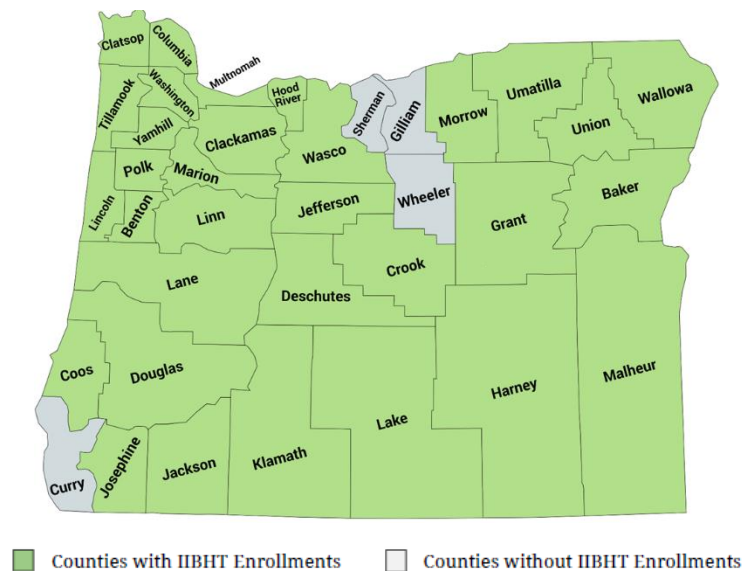
When IIBHT was initially proposed to the legislature, the projected population need indicated an estimate of 1,500 youth to be enrolled in the program per year ([2019-2021 Policy Option Package](#)). The program was slow to launch in the first two years, leaving gaps in some areas of the state where access was limited and other areas where it was not offered at all.

There was promising progress in 2024 in regard to IIBHT availability, with 23 programs associated with 16 Coordinated Care Organizations, covering 32 counties throughout the state. While numbers of youth served still fall below the original estimates, they have increased each year: 63 enrolled in 2021, 160 enrolled in 2022, 233 enrolled in 2023, and 269 enrolled in 2024. As in previous years, the numbers presented in this report may be underestimates of the actual number of youth served, because some programs reported that data entry continues to be a challenge due to staff shortages.

While there is variability across each program for volume of youth served, wait times, and outcomes, some statewide strengths and areas for improvement are observed. An area in which IIBHT is seeing noteworthy success is that youth and families are accessing lower levels of care after IIBHT involvement indicating that IIBHT was an effective treatment. In particular, youth who are in the program longer are more likely to be ready to transition to a lower level of care and to be connected to their recommended care after IIBHT discharge. Standardized measures demonstrate statistically significant improvement in symptom severity, functioning, hopefulness, and satisfaction through the course of IIBHT.

In addition to strengths, this report highlights significant challenges in IIBHT service provision. Several programs throughout the state are enrolling fewer than 5 youth per year. Intake waiting lists range from 0 – 55 days, with the average delay for individual youth across the state being 33 days. Some programs

Figure 9. Map of Counties with IIBHT Enrollments



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anecdotally report that they strive to offer partial services (family support services, skills training) while youth and families are waiting for full services, although this is not yet captured in our data. Further conversations with programs to understand barriers to timely intake, as well as efforts to better capture the full scale of their work with this population, should be prioritized.

As demonstrated in the 2024 report as well as previous IIBHT reports, youth in IIBHT have high complexity. The analysis on the LGBTQ+ population in IIBHT highlighted that this population in particular experiences even more complex issues compared to youth who identify as cis-gendered and straight. Furthermore, youth older than 13, youth with non-cisgender identities, youth with queer sexual orientations, and youth with history of suicide attempt, NSSI, or a psychiatric inpatient admission prior to IIBHT are all at increased risk of behavioral health recidivism. Program staff report that some youth have acuity levels that are very difficult to manage in the community, but that they often experience barriers accessing inpatient treatment. Data from the connection to care analysis is consistent with this observation: less than half of youth recommended for a higher level of care after IIBHT discharge actually received their recommended services in the 6-months after IIBHT discharge. Difficulty connecting youth to their recommended care contributes to repeat visits to EDs, inpatient admissions, and burnout among staff. OHA and OHSU are working on a project to better measure statewide residential need and capacity; this is an important step in ensuring that youth have access to the appropriate level of care.

OHA has invested significant resources in workforce support and development, with trainings, learning collaboratives and technical assistance. IIBHT staff and programs around the state have also invested significant resources in this program and the youth and families they serve. Additional developments on individual program, county, and statewide levels will ensure that these early investments pay off in improved behavioral healthcare and outcomes for all youth in Oregon.

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Accomplishments and Future Work

In 2024, OHSU's DAETA team continued its work in data collection, evaluation, and reporting; technical assistance to community-based programs; and workforce development and support. Specific details of the team's work are included below.

Development and Management of Data Collection (REDCap)

- On an ongoing basis, the DAETA Team managed data collected by community programs; this included reviewing uploaded PDFs and entering data into the REDCap database. Technical assistance was provided on an as-needed basis.
- The DAETA team prepared quarterly statewide data reports and CCO-level data reports for programs that served over 5 youth.
- The DAETA team was responsive to the OHA contract manager for real-time data requests and adapted reporting to these needs. For example, the team began reporting monthly enrollments.
- The DAETA team obtained Medicaid data and death data in 2024 to conduct a statistical analysis of key aspects of IIBHT services and outcomes.
- Data sharing issues referenced in previous reports have been resolved. The DAETA team is currently obtaining Data Use Agreements with Coordinated Care Organizations and other non-CMHP partners.

IIBHT Training Curriculum and Delivery Plan

- The DAETA team managed scheduling, registration, and participant communication for all trainings (Foundations, Clinical, REDCap, PDS/Skills Training).
- The DAETA team delivered or assisted with the following trainings:
 - 4 Foundations trainings with 70 people trained in total
 - 2 Clinical trainings with 32 people trained in total
 - 7 REDCap trainings with 13 people trained in total
 - 2 PDS/Skills trainings with 26 people trained in total (this training was modified for crisis and clinical teams application)
- The DAETA team collected training evaluations from all participants and worked with OHA to incorporate training feedback and update the curriculum as needed.
- The DAETA team has discussed with OHA a plan to adapt the PDS module to a blended asynchronous learning experience using a learning management system and continued live sessions, however low registration numbers and anticipated time investment to do this, the plan was not carried out; alternatively, an adaptation of the module was piloted with a focus on crisis and clinical/peer teams and delivered at the AOCMHP Behavioral Health Summit (September 2024).

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Program Development and Partnerships

- Three new agencies began submitting data during 2024: Columbia Community Mental Health, Klamath Basin Behavioral Health, and Lake View Health District, for a total of 23 programs associated with 16 Coordinated Care Organizations covering 32 counties throughout the state, as well as youth with OpenCard.
- The DAETA team participated in the bi-weekly IIBHT Learning Collaborative and presented findings from the 2023 Annual Report.. The team built a roster list combining IIBHT, CATS, and MRSS FSS, and facilitated 8 combined (IIBHT and MRSS) FSS Learning Collaboratives. .
- The DAETA team developed a survey for families to submit feedback regarding their time in IIBHT. So far, there are 26 responses from families for youth that closed Q3 2023-Q4 2024. As an incentive, families who complete the survey are entered into a drawing for a gift card.

In 2025, the DAETA team aims to complete the following work:

1. Further develop IIBHT reports and explore the viability of making real time data available.
2. Develop a data feedback survey that will always remain open for IIBHT providers to submit feedback.
3. Update the enrollment and closure forms once the new administrative rules are in place. The goals for these updates are to clarify language, identify strategies to reduce administrative burden, and align data points and response options with Stabilization Services.
4. Develop a process to incorporate clinical and peer feedback into evaluation and improvement efforts.
5. In an effort to engage family voice more deliberately, expand the family satisfaction survey efforts, which may include adding qualitative interviews, family advisory panels, or other strategies for eliciting direct family feedback.
6. Pilot recorded IIBHT training content and update the IIBHT training curriculum in accordance with the new administrative rules.

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Recommendations

The OHSU DAETA team recommends that OHA take the following actions:

1. Review reports prepared by the DAETA team and provide formal communication and feedback to each program each quarter. This process should include feedback about:
 - a. Program strengths and challenges
 - b. Data submission adherence and timeliness
 - c. Specific data quality issues, such as high “other” response rates and large amounts of missing data
2. This is important to identify strengths and needs for community teams and to help increase efficacy of data collection and improvement processes. In particular, it will support teams in understanding how high-quality data can help improve service delivery and workflow. Engage in a process with the DAETA team and programs to increase data collection and submission efficiency. This may include exploring options such as Electronic Health Record exports or submission via excel spreadsheet.
3. When the transition to ROADS is scheduled to occur, facilitate meetings between the DAETA team, the OHA BIS team, and the OHA ROADS team to plan for the REDCap to ROADS transition. This should include developing:
 - a. A final timeline for the transition
 - b. A communication strategy to notify CMHPs of changing requirements
 - c. A plan to transfer REDCap data to the ROADS system
 - d. A plan to transfer ROADS data to the DAETA team for ongoing analysis and report generation

Early planning will help improve user experience, reduce confusion, and allow for more seamless transition.

4. Collaborate with the DAETA team in implementing continuous quality improvement efforts to develop an ongoing feedback process for programs regarding data and quarterly reports.
5. Engage in a process with the DAETA team to identify pathways to know which youth are not accessing IIBHT who could potentially benefit from these services.
6. Collaborate with the DAETA team in strengthening processes for family feedback.
7. For IIBHT youth with high acuity needs beyond what can be provided in an intensive outpatient level of care, develop clear access pathways to inpatient or residential services when needed.
8. Collaborate with the DAETA team to conduct an inquiry with programs regarding low completion rates for the Ohio Scales, Hope Scale, and Substance Use Screen. This inquiry should include an evaluation of whether there are forms or data points that could be eliminated to reduce administrative burden.

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Appendix A: Medicaid Analysis

Methods

This analysis uses 2021-2023 Medicaid claims data along with uniquely linked program-collected data for n=190 IIBHT participants to examine 6-month follow up outcomes including behavioral health services (and their corresponding level of care) obtained along with behavioral health recidivism to emergency department (ED), inpatient (IP) hospitalization, or combined ED or IP recidivism. This analysis has three main aims:

- 1) Describe the samples characteristics using program collected data on demographics, CCO, clinical organizations, county, system involvement, clinical history, program length, closure reason, and the level of care recommended at program discharge.
- 2) Identify 6-month follow up outcomes for behavioral health recidivism using Medicaid claims data, along with determining what number and proportions of individuals who obtained their recommended level of care (higher or lower) after discharging IIBHT.
- 3) Assess which sample characteristics are associated with behavioral health recidivism using chi-square tests and Fisher's exact tests in cases of sparse data.

Please reach out to authors for all algorithms and specific Medicaid codes used for identifying recidivism and the level of care obtained for behavioral health services. All other variables for this analysis used program-collected enrollment and closure form data. Future study should include using 2024 Medicaid data, once available. All analyses were performed using R version 4.4.2.

Inclusion/Exclusion criteria

Study inclusion criteria is as follows: any youth's first enrollment into IIBHT who discharged before July 1, 2023, with linked Medicaid claims data in the 6-month follow up period after program discharge are included for analysis. Youth still currently enrolled, re-enrollments, and discharges at or after July 1, 2023, and those without linked 6-month follow up Medicaid claims data are excluded from this analysis.

Relevant Study Definitions

Higher level of care behavioral health services: Acute or sub-acute psychiatric hospitalizations, inpatient substance treatment, residential treatment, partial hospitalization, or therapeutic day treatment. Youth have *obtained higher-level of care* services if there is at least 1 Medicaid claim in their 6-month follow up period for any of the above services.

Lower level of care behavioral health services: Includes a range of standard outpatient behavioral health services and supports (such as medication management, therapy (individual, family, or group), evaluation and management, skills training, etc) available in community or outpatient settings including the home, offices, schools, outpatient hospitals, clinics, community mental health centers, FQHRs, and telehealth appointments). Youth have *obtained lower-level of care* services if there is at least 1 Medicaid claim in their 6-month follow up period for any services described above.

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Recommended level of care at program discharge: IIBHT programs collect data on specific services recommended for the youth at closure. Those recommended for acute or sub-acute psychiatric hospitalizations, inpatient substance treatment, residential treatment, partial hospitalization, or therapeutic day treatment are *recommended for a higher level of care at discharge*. On the contrary, youth not recommended for any higher level of care services (such as acute/sub-acute, residential, partial hospitalization, or day treatment) are *recommended for a lower level of care*.

Behavioral health recidivism: Any Medicaid claim for either ED or IP hospitalizations for behavioral health concerns during the 6-months follow up period after program discharge. Inpatient hospitalization could include either a psychiatric hospital admission, or general inpatient admission with primary ICD-10 diagnosis code for a behavioral health concern, identified using the OHA Behavioral Health - ICD10 Dx Code Table with Flags (2).

For youth with recidivism, **time** in days until is calculated as the number of days from IIBHT discharge to the service start date of the first identified Medicaid claim for behavioral health recidivism.

Additional Tables

Table 26. CCO, Program, and County Information for n=190 Individuals with Linked 2021-2023 Medicaid Claims Data in the 6-months Following IIBHT Discharge.

CCO, Program, and County Information (n=190)	
	Overall (N=190)
CCO	
Advanced Health	12 (6.3%)
All Care CCO	17 (8.9%)
Columbia Pacific CCO	--
Eastern Oregon CCO	24 (12.6%)
Health Share of Oregon	23 (12.1%)
InterCommunity Helath Network CCO	--
Jackson Care Connect	23 (12.1%)
PacificSource: Central Oregon	38 (20.0%)
PacificSource: Lane	--
PacificSource: Marion/Polk	16 (8.4%)
Umpqua Health Alliance	10 (5.3%)
Yamhill Community Care	5 (2.6%)
OpenCard**	10 (5.3%)
Private/Commercial Insurance	--
Program	
Center for Human Development	--
Coos Health and Wellness	12 (6.3%)

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Options for Southern Oregon	40 (21.1%)
The Child Center	--
Wallowa Valley Center for Wellness	--
Youth Villages	73 (38.4%)
Best Care	13 (6.8%)
Catholic Community Services	--
Community Counseling Solutions	9 (4.7%)
Lifeways	12 (6.3%)
Trillium Youth and Family	--
Adapt	10 (5.3%)
Clatsop Behavioral Health	--
Yamhill County Health & Human Services	7 (3.7%)
Lincoln County Health & Human Services	--
County	
Benton	--
Clackamas	6 (3.2%)
Clatsop	--
Coos	12 (6.3%)
Crook	13 (6.8%)
Deschutes	27 (14.2%)
Douglas	10 (5.3%)
Grant	--
Jackson	28 (14.7%)
Jefferson	--
Josephine	11 (5.8%)
Lane	--
Lincoln	--
Linn	--
Malheur	11 (5.8%)
Marion	15 (7.9%)
Morrow	--
Multnomah	14 (7.4%)
Polk	--
Umatilla	--
Union	--
Wallowa	--
Washington	7 (3.7%)
Yamhill	7 (3.7%)
Missing	--

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(--) data suppressed for confidentiality, $n < 5$

Note: small numbers ($5 \leq n < 12$) may be statistically unreliable; interpret with caution

Table 27. Risk Factors Assessment for Recidivism to the ED or IP Hospitalizations for Primary Concerns for Behavioral Health: Chi-square Test and Fisher's Exact Test Results.

	No Recidivism (N=161)	Recidivism (N=29)	P-value
Demographics			
Age Group			
<= 12 Years old	78 (48.4%)	6 (20.7%)	0.010*
13+ Years old	83 (51.6%)	23 (79.3%)	
Sexual Orientation			
Straight	82 (50.9%)	11 (37.9%)	0.028*
Not-Straight	44 (27.3%)	15 (51.7%)	
Unknown	35 (21.7%)	--	
Gender			
M	90 (55.9%)	8 (27.6%)	0.001**
F	57 (35.4%)	12 (41.4%)	
Other	13 (8.1%)	7 (24.1%)	
Unknown	--	--	
Race			
Other Race	48 (29.8%)	9 (31.0%)	1.00
Non-Hispanic White	113 (70.2%)	20 (69.0%)	
Hispanic Ethnicity			
No	136 (84.5%)	24 (82.8%)	1.00
Yes	25 (15.5%)	5 (17.2%)	
Parent Language			
English	156 (96.9%)	27 (93.1%)	0.911
Other Language	--	--	
Missing	--	--	
Program Closure			
Program Length (Days)			
Mean (SD)	135 (101)	145 (85.0)	0.571
Median [Min, Max]	118 [1.00, 728]	128 [18.0, 405]	
Disengaged from Care			
No	132 (82.0%)	23 (79.3%)	0.935
Yes	29 (18.0%)	6 (20.7%)	

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System Involvement			
IDD Services			
No	141 (87.6%)	24 (82.8%)	0.683
Yes	20 (12.4%)	5 (17.2%)	
Juvenile Justice Involvement			
No	145 (90.1%)	26 (89.7%)	1.00
Yes	16 (9.9%)	--	
Foster Care			
Never	95 (59.0%)	17 (58.6%)	1.00
Current/Past	66 (41.0%)	12 (41.4%)	
Clinical History			
Trauma History			
No	22 (13.7%)	--	0.851
Yes	139 (86.3%)	26 (89.7%)	
Suicidal Ideation			
No	74 (46.0%)	11 (37.9%)	0.55
Yes	87 (54.0%)	18 (62.1%)	
Suicide Attempt			
No	121 (75.2%)	16 (55.2%)	0.047*
Yes	40 (24.8%)	13 (44.8%)	
NSSI			
No	93 (57.8%)	10 (34.5%)	0.035*
Yes	68 (42.2%)	19 (65.5%)	
Substance Use			
No	126 (78.3%)	23 (79.3%)	1.00
Yes	35 (21.7%)	6 (20.7%)	
Prior ED visit for mental health			
No	82 (50.9%)	12 (41.4%)	0.456
Yes	79 (49.1%)	17 (58.6%)	
Prior psychiatric inpatient admission			
No	116 (72.0%)	11 (37.9%)	<0.001** *
Yes	45 (28.0%)	18 (62.1%)	
(--) data suppressed for confidentiality, n < 5 Note: small numbers (5 ≤ n < 12) may be statistically unreliable; interpret with caution * p < .05 ** p < .01 *** p < .001 (Two-Sided Test)			

Sources used for classifying recidivism and behavioral health services using Medicaid claims data

1. <https://www.cms.gov/medicare/coding-billing/place-of-service-codes/code-sets> - Place of service code descriptions

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2. <https://www.oregon.gov/oha/hsd/ohp/pages/fee-schedule.aspx> - Site for OHA Behavioral Health fee schedule
3. OHA Behavioral Health - ICD10 Dx Code Table with Flags - Used for identifying Behavioral Health ICD-10 Diagnosis Codes
4. Specialty Provider codes –Medicaid Data Dictionary

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Appendix B: LGBTQ+ Analysis

Methods

This analysis uses 2021-2024 program collected enrollment data to better understand IIBHT youth with LGBTQ+ identities compared to those who identify as cisgendered and straight for n=511 youth. To determine potential factors (including demographics, presenting issues, and clinical history) associated with the LGBTQ+ community, an unadjusted analysis including chi-square tests and fisher’s exact test in cases of sparse data was performed. An adjusted analysis using multivariable logistic regression to determine what factors best predict LGBTQ+ identities for this sample, and further validate if factors identified in the unadjusted analysis are still significant when simultaneously adjusting for other potential confounders. To determine the factors included in the final adjusted model, the variable selection algorithm known as *best subsets selection* was employed. All analyses were performed using R version 4.4.2.

Inclusion/Exclusion Criteria

This study included all individuals who either identified as straight and male or female, or those who identified as other-gendered (not male or female) or a not-straight sexual orientation. Those with unknown sexual orientation are excluded from analysis. To account for re-enrollments, only the first enrollment where a youth identified as not-straight are included for analysis; similar for straight youth with re-enrollments, only their first enrollment is included for analysis.

Relevant Study Definitions

Straight vs not Straight/LGBTQ+: Youth are classified as straight if their reported sexual orientation is “straight” and their reported gender is either “male” or “female”. Those are classified as not-straight, or as part of the LGBTQ+ community, if their reported sexual orientation is not-straight or their reported gender is other than male or female.

Cisgendered vs non-Cisgendered: Cisgendered identities include options for “male” or “female.” Those with any other reported gender-identity are non-cisgendered.

Additional Tables

Table 28. CCO, Program, and County Information for n=511 Individuals Enrolled in IIBHT Between 2021 and 2024 by LGBTQ+ Identity

CCO, Program, and County information by LGBTQ+ Identity			
	Straight (N=327)	LGBTQ+ (N=184)	Overall (N=511)
CCO			
Advanced Health	14 (4.3%)	10 (5.4%)	24 (4.7%)
All Care CCO	33 (10.1%)	12 (6.5%)	45 (8.8%)
Cascade Health Alliance	--	--	--

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Columbia Pacific CCO	7 (2.1%)	12 (6.5%)	19 (3.7%)
Eastern Oregon CCO	51 (15.6%)	25 (13.6%)	76 (14.9%)
Health Share of Oregon	34 (10.4%)	40 (21.7%)	74 (14.5%)
InterCommunity Health Network CCO	10 (3.1%)	--	14 (2.7%)
Jackson Care Connect	27 (8.3%)	10 (5.4%)	37 (7.2%)
PacificSource: Central Oregon	43 (13.1%)	12 (6.5%)	55 (10.8%)
PacificSource: Columbia Gorge Region	17 (5.2%)	--	21 (4.1%)
PacificSource: Lane	24 (7.3%)	13 (7.1%)	37 (7.2%)
PacificSource: Marion/Polk	12 (3.7%)	6 (3.3%)	18 (3.5%)
Trillium Community Health Plan: North	--	--	--
Trillium Community Health Plan: South	--	--	--
Umpqua Health Alliance	18 (5.5%)	11 (6.0%)	29 (5.7%)
Yamhill Community Care	15 (4.6%)	11 (6.0%)	26 (5.1%)
OpenCard	12 (3.7%)	9 (4.9%)	21 (4.1%)
Private/Commercial Insurance	6 (1.8%)	--	9 (1.8%)
Uninsured	--	--	--
Program			
Center for Human Development	7 (2.1%)	6 (3.3%)	13 (2.5%)
Coos Health and Wellness	14 (4.3%)	10 (5.4%)	24 (4.7%)
Options for Southern Oregon	62 (19.0%)	22 (12.0%)	84 (16.4%)
The Child Center	17 (5.2%)	8 (4.3%)	25 (4.9%)
Wallowa Valley Center for Wellness	--	--	--
Youth Villages	86 (26.3%)	54 (29.3%)	140 (27.4%)
Best Care	15 (4.6%)	--	18 (3.5%)
Catholic Community Services	--	--	6 (1.2%)
Columbia Community Mental Health	--	--	--
Community Counseling Solutions	29 (8.9%)	14 (7.6%)	43 (8.4%)
Lifeways	10 (3.1%)	6 (3.3%)	16 (3.1%)
New Directions	6 (1.8%)	--	7 (1.4%)
The Next Door*	17 (5.2%)	--	21 (4.1%)
Trillium Youth and Family	--	7 (3.8%)	10 (2.0%)
Adapt	22 (6.7%)	13 (7.1%)	35 (6.8%)
Clatsop Behavioral Health	--	--	5 (1.0%)
Klamath Basin Behavioral Health	--	--	--
Yamhill County Health & Human Services	15 (4.6%)	13 (7.1%)	28 (5.5%)
Lincoln County Health & Human Services	--	--	--
Oregon Community Programs	12 (3.7%)	5 (2.7%)	17 (3.3%)
Tillamook Family Counseling Center	5 (1.5%)	7 (3.8%)	12 (2.3%)
County			

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Baker	6 (1.8%)	--	7 (1.4%)
Benton	--	--	--
Clackamas	15 (4.6%)	8 (4.3%)	23 (4.5%)
Clatsop	--	--	5 (1.0%)
Columbia	--	--	--
Coos	14 (4.3%)	10 (5.4%)	24 (4.7%)
Crook	12 (3.7%)	--	13 (2.5%)
Deschutes	26 (8.0%)	10 (5.4%)	36 (7.0%)
Douglas	22 (6.7%)	13 (7.1%)	35 (6.8%)
Grant	8 (2.4%)	--	12 (2.3%)
Hood River	5 (1.5%)	--	6 (1.2%)
Jackson	33 (10.1%)	12 (6.5%)	45 (8.8%)
Jefferson	5 (1.5%)	--	7 (1.4%)
Josephine	28 (8.6%)	10 (5.4%)	38 (7.4%)
Klamath	--	--	--
Lane	29 (8.9%)	13 (7.1%)	42 (8.2%)
Lincoln	--	--	--
Linn	7 (2.1%)	--	10 (2.0%)
Malheur	10 (3.1%)	6 (3.3%)	16 (3.1%)
Marion	15 (4.6%)	6 (3.3%)	21 (4.1%)
Morrow	5 (1.5%)	--	7 (1.4%)
Multnomah	15 (4.6%)	27 (14.7%)	42 (8.2%)
Polk	--	--	--
Tillamook	5 (1.5%)	7 (3.8%)	12 (2.3%)
Umatilla	16 (4.9%)	8 (4.3%)	24 (4.7%)
Union	7 (2.1%)	6 (3.3%)	13 (2.5%)
Wallowa	--	--	--
Wasco	13 (4.0%)	--	16 (3.1%)
Washington	9 (2.8%)	7 (3.8%)	16 (3.1%)
Yamhill	15 (4.6%)	14 (7.6%)	29 (5.7%)
(--) data suppressed for confidentiality, $n < 5$ Note: small numbers ($5 \leq n < 12$) may be statistically unreliable; interpret with caution			

Table 29. Demographic and Clinical Factors Related to LGBTQ+ Identities Assessment: Chi-square Test and Fisher's Exact Test Results for 511 IIBHT Youth Enrolled Between 2021-2024

	Straight (N=327)	LGBTQ+ (N=184)	Overall (N=511)	P-value
Age Group				
<= 12 years old	99 (30.3%)	36 (19.6%)	135 (26.4%)	0.011*
13+ Years old	228 (69.7%)	148 (80.4%)	376 (73.6%)	

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Race/Ethnicity				
Non-Hispanic White	244 (74.6%)	134 (72.8%)	378 (74.0%)	0.735
Hispanic or Other Race	83 (25.4%)	50 (27.2%)	133 (26.0%)	
School Status				
Not Enrolled	28 (8.6%)	28 (15.2%)	56 (11.0%)	0.031*
Current Enrolled	299 (91.4%)	156 (84.8%)	455 (89.0%)	
Foster Care				
Current or Past	203 (62.1%)	115 (62.5%)	318 (62.2%)	1.00
Never	124 (37.9%)	69 (37.5%)	193 (37.8%)	
Referral Source				
(Sub)Acute/Residential/ED/Crisis Center	43 (13.1%)	40 (21.7%)	83 (16.2%)	0.061
Mobile Crisis/IOP/BRS	22 (6.7%)	10 (5.4%)	32 (6.3%)	
Standard Outpatient System of Care ^b	198 (60.6%)	107 (58.2%)	305 (59.7%)	
Other Source	64 (19.6%)	27 (14.7%)	91 (17.8%)	
Presenting Referral Issue				
1 = Youth is at immediate risk of psychiatric hospitalization or removal from home due to emotional and mental health conditions	39 (11.9%)	30 (16.3%)	69 (13.5%)	<0.001***
2 = Youth may require residential treatment or youth is discharging from residential treatment or higher levels of care	63 (19.3%)	60 (32.6%)	123 (24.1%)	
3 = Youth exhibits behavior that indicates high risk of developing conditions of a severe or persistent nature	99 (30.3%)	48 (26.1%)	147 (28.8%)	
4 = Youth is experiencing a mental health condition(s) but not requiring hospitalization/removal from home	120 (36.7%)	40 (21.7%)	160 (31.3%)	
Missing	6 (1.8%)	6 (3.3%)	12 (2.3%)	
Other Diagnosis				
Yes	88 (26.9%)	43 (23.4%)	131 (25.6%)	0.439
No	239 (73.1%)	141 (76.6%)	380 (74.4%)	
Attention-Deficit/Hyperactivity Disorder				
Yes	177 (54.1%)	83 (45.1%)	260 (50.9%)	0.062
No	150 (45.9%)	101 (54.9%)	251 (49.1%)	
Anxiety Disorder				
Yes	97 (29.7%)	77 (41.8%)	174 (34.1%)	0.007**
No	230 (70.3%)	107 (58.2%)	337 (65.9%)	

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Autism Spectrum Disorder				
Yes	44 (13.5%)	21 (11.4%)	65 (12.7%)	0.598
No	283 (86.5%)	163 (88.6%)	446 (87.3%)	
Depressive Disorder				
Yes	96 (29.4%)	96 (52.2%)	192 (37.6%)	<0.001***
No	231 (70.6%)	88 (47.8%)	319 (62.4%)	
Bipolar Disorder				
Yes	10 (3.1%)	10 (5.4%)	20 (3.9%)	0.275
No	317 (96.9%)	174 (94.6%)	491 (96.1%)	
Disruptive Impulse Control/Conduct Disorder				
Yes	64 (19.6%)	27 (14.7%)	91 (17.8%)	0.205
No	263 (80.4%)	157 (85.3%)	420 (82.2%)	
Trauma and Stressor-Related Disorder				
Yes	146 (44.6%)	103 (56.0%)	249 (48.7%)	0.018*
No	181 (55.4%)	81 (44.0%)	262 (51.3%)	
Current Substance Use				
Yes	26 (8.0%)	16 (8.7%)	42 (8.2%)	0.899
No	301 (92.0%)	168 (91.3%)	469 (91.8%)	
Current Suicidal Ideation				
Yes	51 (15.6%)	62 (33.7%)	113 (22.1%)	<0.001***
No	276 (84.4%)	122 (66.3%)	398 (77.9%)	
Current NSSI				
Yes	48 (14.7%)	37 (20.1%)	85 (16.6%)	0.145
No	279 (85.3%)	147 (79.9%)	426 (83.4%)	
Trauma History				
Yes	280 (85.6%)	165 (89.7%)	445 (87.1%)	0.241
No	47 (14.4%)	19 (10.3%)	66 (12.9%)	
Past (Sub)Acute/Residential Treatment				
Yes	21 (6.4%)	18 (9.8%)	39 (7.6%)	0.23
No	306 (93.6%)	166 (90.2%)	472 (92.4%)	
Past Day Treatment or Partial Hospitalization				
Yes	23 (7.0%)	21 (11.4%)	44 (8.6%)	0.126
No	304 (93.0%)	163 (88.6%)	467 (91.4%)	
Past IOP or Similar Level of Care ^b				
Yes	33 (10.1%)	36 (19.6%)	69 (13.5%)	0.004
No	294 (89.9%)	148 (80.4%)	442 (86.5%)	
Past Wraparound Enrollment				
Yes	54 (16.5%)	27 (14.7%)	81 (15.9%)	0.674
No	273 (83.5%)	157 (85.3%)	430 (84.1%)	
Past Mental Health Outpatient Services ^c				
Yes	121 (37.0%)	94 (51.1%)	215 (42.1%)	0.003

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No	206 (63.0%)	90 (48.9%)	296 (57.9%)	
Prior Mental Health ED Visit				
Yes	130 (39.8%)	120 (65.2%)	250 (48.9%)	<0.001***
No	197 (60.2%)	64 (34.8%)	261 (51.1%)	
Prior Suicide Attempt				
Yes	74 (22.6%)	85 (46.2%)	159 (31.1%)	<0.001***
No	253 (77.4%)	99 (53.8%)	352 (68.9%)	
Prior Psychiatric Hospitalization				
Yes	91 (27.8%)	84 (45.7%)	175 (34.2%)	<0.001***
No	236 (72.2%)	100 (54.3%)	336 (65.8%)	
Prior Substance Use				
Yes	50 (15.3%)	54 (29.3%)	104 (20.4%)	<0.001***
No	277 (84.7%)	130 (70.7%)	407 (79.6%)	
Prior Suicidal Ideation				
Yes	151 (46.2%)	128 (69.6%)	279 (54.6%)	<0.001***
No	176 (53.8%)	56 (30.4%)	232 (45.4%)	
Prior NSSI				
Yes	111 (33.9%)	93 (50.5%)	204 (39.9%)	<0.001***
No	216 (66.1%)	91 (49.5%)	307 (60.1%)	
<p>* $p < .05$ ** $p < .01$ *** $p < .001$ (Two-Sided Test)</p> <p>Note: small numbers ($5 \leq n < 12$) may be statistically unreliable; interpret with caution</p> <p>^a Standard outpatient system of care includes outpatient services for mental health therapy, psychiatry or medication management, and school based mental health services.</p> <p>^b Services of similar level of care to IOP includes EASA, CATS and BRS.</p> <p>^c Includes outpatient services for mental health therapy, psychiatry or medication management, and school based mental health services.</p>				

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Appendix C: Program Length Analysis

Methods

This analysis uses program collected enrollment and closure data to better understand both the distribution of program length and factors relating to program length for n=465 IIBHT youth who discharged the program between 2021 and 2024. An exploratory analysis for program length including histograms, boxplots, normality assessment using Shapiro Wilks tests, and summary measures including the mean, standard deviation, minimum, maximum, median, and quartiles to describe the distribution of program length. Differences in average program length in days by program collected enrollment and closure data (including demographics, presenting issues, clinical history, closure reason, major events, and connection/barriers to care) are assessed using 2-sample student's t-test and type II ANOVA. Due to the right skew of program-length, a square-root transformation was applied; the transformed version of program length was used for all statistical tests. A sensitivity analysis excluding youth enrolled for longer than 400 days was simultaneously performed for n=448 youth to ensure factors found to be significantly related to program length were not heavily influenced by the presence of outliers. All analyses were performed using R version 4.4.2. Future study will include both univariate and multivariable regression techniques.

Inclusion/Exclusion Criteria

This study includes the first enrollment for all IIBHT youth who discharged by December 31, 2024 with completed program collected enrollment and closure forms. Those still enrolled in the program after December 31, 2024, re-enrollments, or those missing necessary enrollment form data are excluded from analysis.

Additional Tables

Table 30. CCO, Program, and County Information for n=465 Individuals Discharged IIBHT by December 31, 2024

CCO, Program, and County Information (n=465)	
CCO	
Advanced Health	17 (3.7%)
All Care CCO	40 (8.6%)
Cascade Health Alliance	--
Columbia Pacific CCO	16 (3.4%)
Eastern Oregon CCO	53 (11.4%)
Health Share of Oregon	62 (13.3%)
InterCommunity Health Network CCO	13 (2.8%)
Jackson Care Connect	43 (9.2%)
PacificSource: Central Oregon	65 (14.0%)
PacificSource: Columbia Gorge Region	13 (2.8%)
PacificSource: Lane	26 (5.6%)

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PacificSource: Marion/Polk	24 (5.2%)
Trillium Community Health Plan: North	--
Umpqua Health Alliance	33 (7.1%)
Yamhill Community Care	18 (3.9%)
OpenCard	25 (5.4%)
Private/Commercial Insurance	12 (2.6%)
Uninsured	--
Program	
Center for Human Development	14 (3.0%)
Coos Health and Wellness	17 (3.7%)
Options for Southern Oregon	84 (18.1%)
The Child Center	11 (2.4%)
Wallowa Valley Center for Wellness	--
Youth Villages	163 (35.1%)
Best Care	16 (3.4%)
Catholic Community Services	--
Community Counseling Solutions	21 (4.5%)
Lifeways	15 (3.2%)
New Directions	5 (1.1%)
The Next Door	13 (2.8%)
Trillium Youth and Family	--
Adapt	42 (9.0%)
Clatsop Behavioral Health	--
Klamath Basin Behavioral Health	--
Yamhill County Health & Human Services	21 (4.5%)
Oregon Community Programs	18 (3.9%)
Tillamook Family Counseling Center	14 (3.0%)
County	
Baker	5 (1.1%)
Benton	--
Clackamas	18 (3.9%)
Clatsop	--
Coos	17 (3.7%)
Crook	13 (2.8%)
Deschutes	50 (10.8%)
Douglas	42 (9.0%)
Grant	7 (1.5%)
Hood River	--
Jackson	51 (11.0%)
Jefferson	7 (1.5%)

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Josephine	32 (6.9%)
Klamath	--
Lane	29 (6.2%)
Linn	9 (1.9%)
Malheur	14 (3.0%)
Marion	27 (5.8%)
Morrow	--
Multnomah	36 (7.7%)
Polk	--
Tillamook	14 (3.0%)
Umatilla	11 (2.4%)
Union	14 (3.0%)
Wallowa	--
Wasco	11 (2.4%)
Washington	18 (3.9%)
Yamhill	21 (4.5%)
<i>(--) data suppressed for confidentiality, n < 5</i> <i>Note: small numbers (5 ≤ n < 12) may be statistically unreliable; interpret with caution</i>	

Table 31. Assessment for Differences in Average Program Length by Program Collected Enrollment and Closure Form Data: 2-Sample Student's T-Test and Type II ANOVA Results (n=465).

Differences in Mean Program Length: 2 Sample t-test and type II ANOVA Results					
	Program Length in Days (n=465)				
Variable	N	Mean	SD	Median	P-value
Age Group					
<= 12 Years Old	120	148.3	91.1	134	0.828
13+ Years Old	345	155.2	115.0	134	
Sexual Orientation					
LGBTQ+	122	160.6	117.3	135.5	0.711
Straight	238	150.3	104.2	129	
Unknown	105	152.3	111.6	136	
Race/Ethnicity					
Hispanic or Other Race	126	147.8	89.7	137.5	0.816
Non-Hispanic White	339	155.5	115.8	133	
Gender Identity					
F	173	144.8	103.5	132	0.479
M	249	159.4	115.6	137	
Other	43	153.6	93.2	125	
School Status					

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Not Enrolled	43	172.3	122.2	143	0.299
Current Enrolled	422	151.5	107.8	131.5	
Foster Care					
Never	187	159.13	121.72	128	0.493
Current or Past	278	149.62	100.09	136	
Referral Source					
(Sub)Acute/Residential/ED/Crisis Center	71	135.5	88.7	117	0.157
Mobile Crisis/IOP/BRS	33	136.1	75.3	130	
Standard Outpatient System of Care ^a	277	163.8	123.5	138	
Other	84	141.2	79.6	134.5	
Presenting ^b Referral Issue					
1 = Youth is at immediate risk of psychiatric hospitalization or removal from home due to emotional and mental health conditions	63	139.2	90.7	122	0.675
2 = Youth may require residential treatment or youth is discharging from residential treatment or higher levels of care	110	153.7	115.3	137	
3 = Youth exhibits behavior that indicates high risk of developing conditions of a severe or persistent nature	150	161.0	116.6	137.5	
4 =Youth is experiencing a mental health condition(s) but not requiring hospitalization/removal from home	142	151.6	104.2	129	
Current Substance Use					
No	427	156.4	111.2	137	0.021*
Yes	38	120.1	79.1	106	
Current Suicidal Ideation					
No	364	153.8	108.5	135	0.972
Yes	101	152.3	112.5	131	
Current NSSI					
No	386	151.8	107.2	130.5	0.361
Yes	79	161.4	119.5	143	
Attention-Deficit/Hyperactivity Disorder (ADHD)					
No	229	145.6	89.0	132	0.247
Yes	236	161.1	125.6	135.5	
Anxiety Disorder					
No	311	147.5	104.4	125	0.067
Yes	154	165.6	117.9	141.5	
Autism Spectrum Disorder					

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No	401	154.3	109.4	136	0.615
Yes	64	148.3	109.4	122.5	
Depressive Disorder					
No	303	158.0	105.7	139	0.143
Yes	162	145.0	115.5	118.5	
Disruptive Impulse Control and Conduct Disorder					
No	378	150.2	109.5	130.5	0.064
Yes	87	167.6	107.7	144	
Feeding and Eating Disorder					
No	450	152.4	104.3	135.5	0.605
Yes	15	185.3	213.5	119	
Other Neurodevelopmental Disorder (ie IDD)					
No	428	149.9	108.2	128	0.026*
Yes	37	193.9	115.4	181	
Trauma and Stressor-Related Disorder					
No	230	157.6	111.2	139	0.417
Yes	235	149.4	107.4	125	
Other Disorder (ex: bipolar, dissociative, etc)					
No	417	153.6	108.8	134	0.914
Yes	48	152.5	114.6	134	
Trauma History					
No	61	147.1	118.0	118	0.425
Yes	404	154.4	108.0	135.5	
Substance Use History					
No	387	154.4	112.4	134	0.760
Yes	78	148.5	92.4	131	
Suicidal Ideation History					
No	211	156.6	112.7	134	0.624
Yes	254	150.8	106.5	133.5	
NSSI History					
No	267	159.5	113.3	138	0.224
Yes	198	145.3	103.3	127	
(Sub)Acute/Residential Treatment in the Year Prior					
No	428	152.9	111.1	131.5	0.471
Yes	37	159.9	85.7	149	
Day Treatment or Partial Hospitalization in the Year Prior					
No	422	154.1	111.4	134.5	0.862
Yes	43	147.0	86.6	120	
IOP or Similar Level of Care ^c in the Year Prior					

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No	393	147.1	105.6	127	0.007**
Yes	72	188.0	122.8	169.5	
Wraparound in the Year Prior					
No	386	154.6	111.9	136	0.662
Yes	79	147.8	95.9	120	
Substance Treatment or Juvenile Justice Services in Year Prior					
No	447	152.5	109.3	133	0.313
Yes	18	178.2	109.1	184.5	
Standard Outpatient System of Care Services ^a in Year Prior					
No	245	142.5	92.0	127	0.042*
Yes	220	165.7	124.9	138.5	
Mental Health ED Visit in the last Year					
No	249	160.4	120.6	137	0.207
Yes	216	145.4	94.2	124	
Prior Suicide Attempt					
No	335	155.6	117.0	133	0.788
Yes	130	147.8	86.5	136.5	
Psychiatric Hospitalization in the last Year					
No	318	157.1	114.6	136	0.263
Yes	147	145.6	96.7	125	
Connection to Care at Program Discharge					
No	153	141.8	113.5	117	0.028*
Yes	312	159.1	106.9	140	
Any Major Event during program					
No	205	146.6	106.4	134	0.246
Yes	260	158.9	111.4	134.5	
Problematic Behaviors ^d during program					
No	367	152.4	114.5	132	0.310
Yes	98	157.4	87.3	141.5	
Self-harm (NSSI) during program					
No	421	154.7	112.1	136	0.575
Yes	44	141.5	77.3	118	
ED or IP admission for mental health during program					
No	364	151.6	109.5	135.5	0.465
Yes	101	160.1	108.7	128	
Other Major Event during program (ex: major family change)					
No	341	151.5	109.4	133	0.401
Yes	124	158.8	109.1	138.5	
Closure Reason					

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Lower/Stable	236	177.3	103.6	157	<0.001***
Higher	48	142.2	99.8	109	
Other	67	121.9	107.5	98	
Stopped Engaging	89	117.6	100.2	89	
Unknown	25	162.3	155.3	122	
Barrier to care: Limited Access to Appropriate Provider(s)					
No	426	152.6	110.8	131.5	0.342
Yes	39	162.8	91.8	149	
Barrier to care: Diagnosis preventing acceptance to recommended services					
No	435	153.3	110.7	134	0.704
Yes	30	155.4	87.8	138	
Barrier to care: Youth/Family unable to engage in recommended services					
No	396	156.0	109.7	138.5	0.167
Yes	69	138.7	106.6	117	
Barrier to care: Youth/Family declined further services					
No	368	160.3	100.8	141.5	<0.001***
Yes	97	127.4	134.2	91	
Barrier to care: Not Listed					
No	388	153.2	110.5	132.5	0.733
Yes	77	154.9	103.6	140	
Barrier to care: Other					
No	422	154.4	111.5	137	0.696
Yes	43	143.9	84.2	119	
No Reported Barriers to obtaining the recommended level of care at discharge					
No	381	152.6	114.2	127	0.206
Yes	84	157.5	83.9	148.5	
Barrier to care: Insurance/coverage or other financial barriers					
No	448	152.9	110.0	133	0.397
Yes	17	168.6	89.5	149	
* p < .05 ** p < .01 *** p < .001 (Two-Sided Test); SD = Standard Deviation					
ª Standard outpatient system of care includes outpatient services for mental health such as: therapy, psychiatry or medication management, and school based mental health services					
ª Youth can have multiple referral issues selected, the maximum referral issue is the highest acuity issue					
ª Services of similar level of care (LOC) includes EASA, CATS, BRS, or IOP					
ª Problematic behaviors include any major event during IIBHT for substance use, running away from home, expulsion from school, or new juvenile justice interaction					

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Appendix D: Reference List

1. Snyder et al. (1997). The Development and Validation of the Children's Hope Scale. *Journal of Pediatric Psychology*, 22(3), 399-421.
2. Ogles et al. (2001). *The Ohio Scales: Practical Outcome Assessment*. Human Science Press, Inc.