Intensive Outpatient Services: Evaluation of Child Serving Programs

Overview

Study Components

- Literature and Best Practice
- Intensive Outpatient (IOP) Population Profile
- IOP Utilization Profile
  - Readmissions
  - Length of Stay (LOS)
  - Connections to Care
- Post Discharge Hospitalizations
- Site Visits
  - Strengths
  - Challenges
- Recommendations
- Questions & Discussions

Literature Review & Best Practice

IOP Programs in Connecticut

- In 2014 there were 124 IOP Programs serving Medicaid Recipients
  - 97 Programs were identified as Adult Serving Programs
  - 27 Programs were identified as Youth Serving Programs

Youth IOP Literature Overview

- Very little research evaluating effectiveness of IOP in relation to other levels of care
- Consensus is that IOP is effective at;
  - Easing transition from higher levels of care
  - Diverting youth from hospitalization
  - Reducing rates of readmission to residential and inpatient care

EBPs with Promise for Incorporation into IOP Programming

- TF-CBT PRAC Components
- Multi-Family Groups (McKay)
- Attachment, Self-Regulation, and Competency (ARC)
- Interpersonal Psychotherapy for Depression (Adolescent Version, IPD-A)
- Dialectical Behavior Therapy (DBT)
- SA Prevention
  - Screening Brief Intervention & Treatment, Adolescent Version (SBIRT-A)
  - Strengthening Families Program

Medicaid Claims Analysis

Methods

- Claims Analysis
  - Medicaid Claims Data from July 1, 2012 to June 30, 2014.
  - Excludes Duals, DO5, Title 19
  - Eligibility – specific to measure
- IOP Episode Definition
  - Series of IOP Visits with the same provider
  - Without gaps between the visits of 30 days or more

IOP Utilizer Profile

Youth IOP Population - Gender

	Youth Medicaid Population and IOP Utilizers by Gender			
Gender	Youth IOP Utilizers n=1,648		Youth Medicaid Population N=262,691	
	# of Youth IOP Utilizers	% of Youth IOP Utilizers	# of Youth Medicaid Members	% of Youth Medicaid Members
Male	879	53.3%	128,263	48.8%
Female	769	46.7%	134,425	51.2%

- Males are slightly over-represented in the population of Youth IOP Utilizers

Youth IOP Population - Age

	Youth Medicaid Population and IOP Utilizers by Age			
Age Group	Youth IOP Utilizers n=1,648		Youth Medicaid Population N=262,691	
	# of Youth IOP Utilizers	% of Youth IOP Utilizers	# of Youth Medicaid Members	% of Youth Medicaid Members
3-12	620	37.6%	181,665	69.2%
13-17	1,028	62.4%	81,026	30.8%

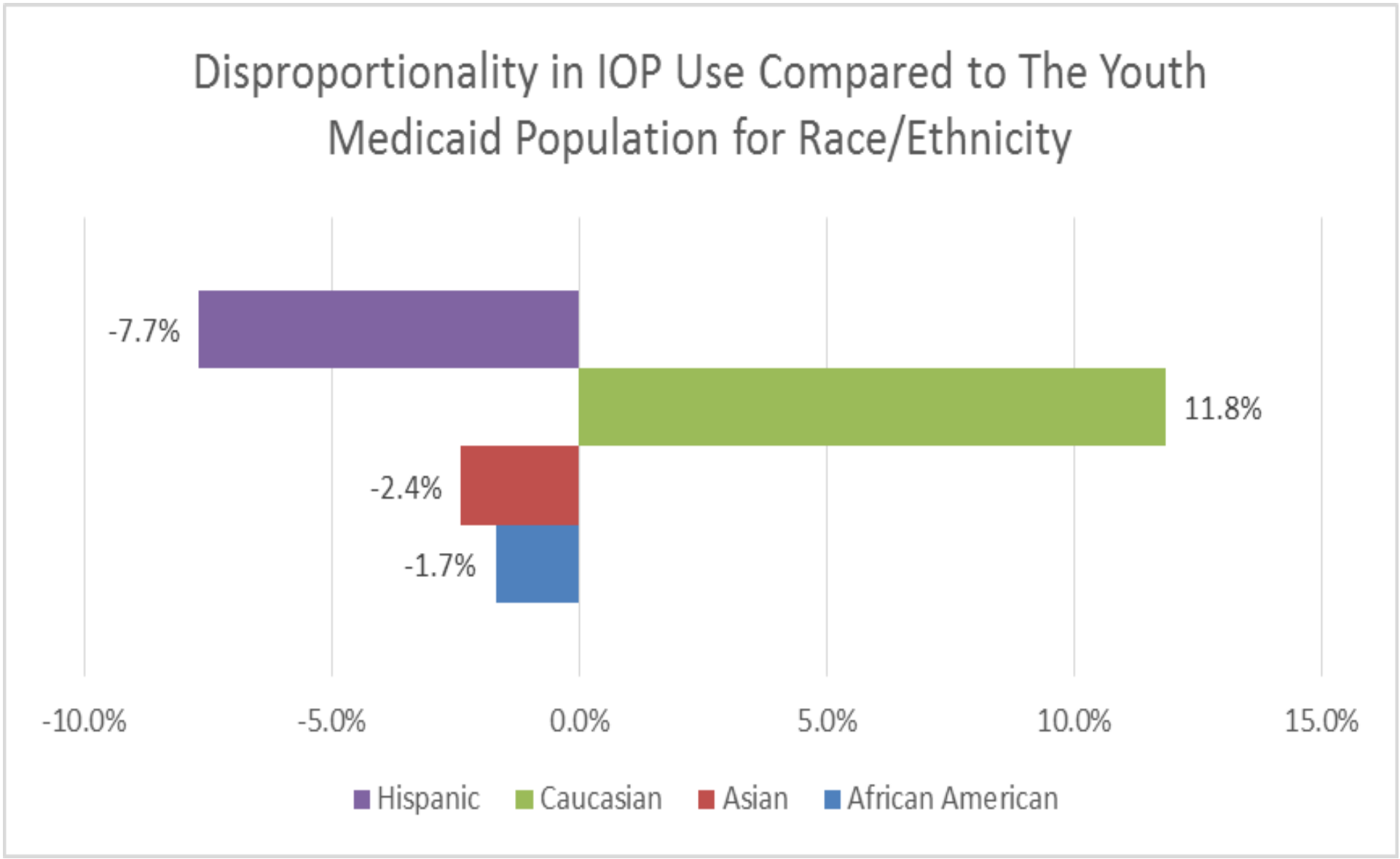
- Adolescents are much higher utilizers of IOP than younger children (3-12)

Youth IOP Population – Race Ethnicity

	Youth Medicaid Population and IOP Utilizers by Race/Ethnicity			
	Youth IOP Utilizers n=1,648		Youth Medicaid Population N=262,691	
Race/Ethnicity	# of Youth IOP Utilizers	% of Youth IOP Utilizers	# of Youth Medicaid Members	% of Youth Medicaid Members
African American	299	18.1%	52,085	19.8%
Asian	12	0.7%	8,167	3.1%
Caucasian	854	51.8%	105,050	40.0%
Hispanic	463	28.1%	93,965	35.8%
Other	20	1.2%	3,424	1.3%

- Caucasian Youth are overrepresented in IOP Utilization
- African American Youth are slightly underrepresented in IOP Utilization
- Hispanic and Asian Youth are significantly underrepresented in comparison to the Medicaid Population

Youth IOP Population – Race Ethnicity



Youth IOP Population – Top Diagnoses

Mood Depressive Disorders NOS	1,223	74.2%
Attention Deficit Disorders	908	55.1%
Disruptive Behavior Disorders	795	48.2%
Anxiety Disorders	618	37.5%
Stress Disorders	525	31.9%
Adjustment Disorders	507	30.8%
Other Psychotic Disorders	507	30.8%
Major Depressive Disorder	500	30.3%
Other Mental Disorders	444	26.9%
Cannabis Related Disorders	293	17.8%
Bipolar Disorders	292	17.7%
Other Substance Abuse Issues	245	14.9%
Other Developmental Disorders	205	12.4%

Youth IOP Population – Comorbid Medical Conditions

	Top Comorbid Medical Diagnoses - Youth Medicaid Population and IOP Utilizers			
Medical Diagnoses	Youth IOP Utilizers n=1,648		Youth Medicaid Population N=262,691	
	# of Youth IOP Utilizers with Diagnosis	% of Youth IOP Utilizers	# of Youth Medicaid Members	% of Youth Medicaid Members
Asthma	387	23.5%	36,304	13.8%
Cerebral Palsy	-	0.0%	654	0.2%
Diabetes	41	2.5%	1,758	0.7%
Epilepsy	38	2.3%	2,751	1.0%
HIV	2	0.1%	80	0.0%
Leukemia	1	0.1%	169	0.1%
Migraine	39	2.4%	2,367	0.9%

Youth IOP Population – Top Medications

Top Medications Filled by Youth IOP Utilizers		
Medication Filled During CY 2013 Study Period	Youth IOP Utilizers n=1,648	
	# of Youth IOP Utilizers	% of Youth IOP Utilizers
ADHD	788	47.8%
Antidepressants	775	47.0%
Antipsychotics	765	46.4%
Smoking Deterrents	263	16.0%
Mood Stabilizers	253	15.4%
Antianxiety	212	12.9%
Anti-manic	58	3.5%
Narcotics	23	1.4%
Sedative Hypnotics	9	0.5%
Alcohol Treatment Agents	-	0.0%
Methadone	-	0.0%

IOP Utilization Profile

Youth IOP Utilization – ALOS & Intensity

Youth ALOS and Intensity			
	N	ALOS	Average Services per Week
All Episodes	3,529	45.35	2.85
Episodes with 4+ IOP Visits	3,245	49.07	2.95

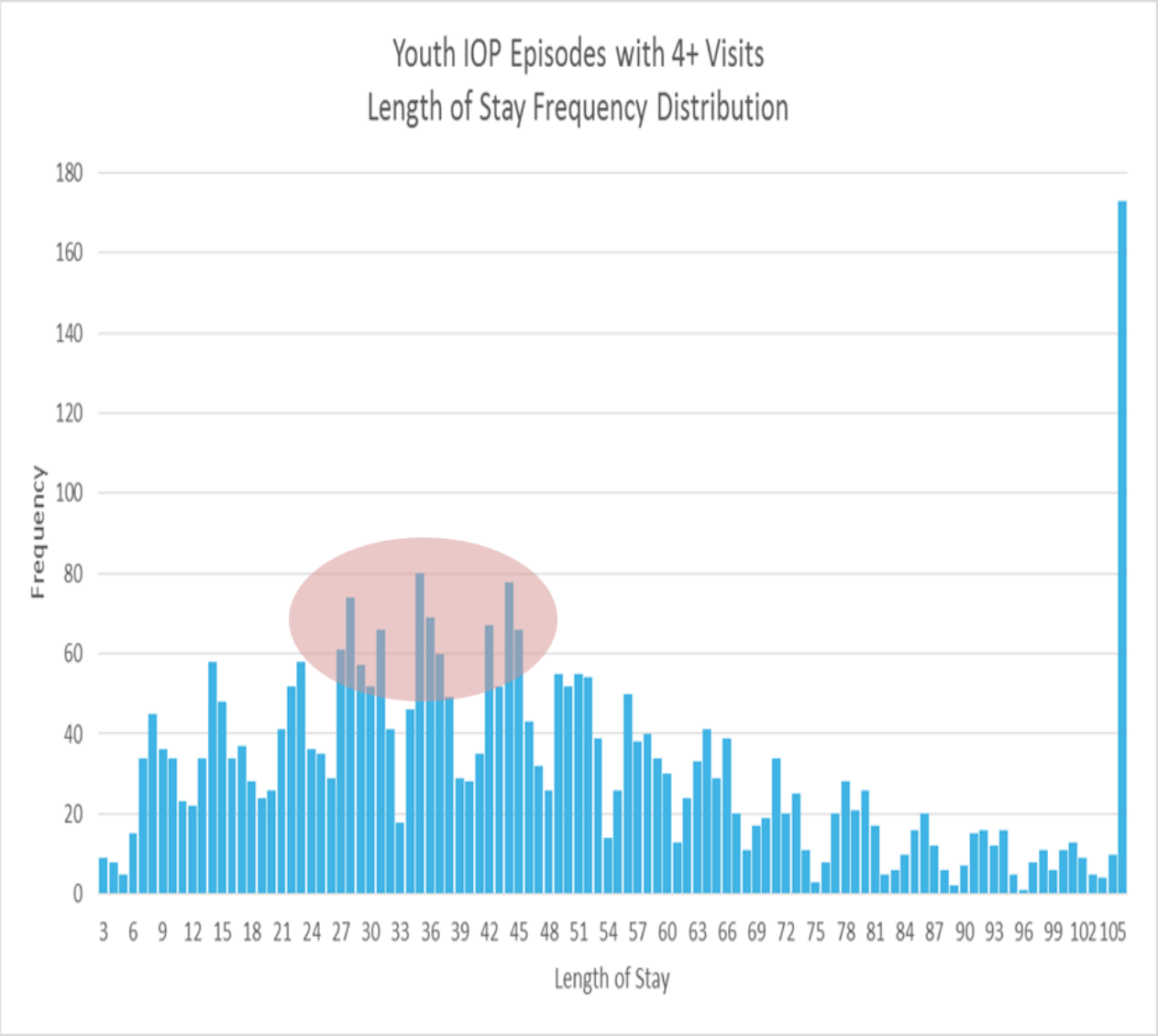
ALOS and Intensity by Gender: Youth				
	Unique Member Count	N	ALOS	Average Services per Week
Male	1,625	1,839	45.61	2.95
Female	1,425	1,690	45.06	2.74
All Youth	3,050	3,529	45.35	2.85

Youth IOP Utilization – ALOS & Race/Ethnicity

ALOS and Intensity by Race & Ethnicity: Youth				
	Unique Member Count	N	ALOS	Average Services per Week
African American	474	533	43.17	2.87
Asian	19	20	52.9	2.42
Caucasian	1,638	1,930	44.18	2.85
Hispanic	845	963	48.39	2.83
Other	74	83	49.23	2.93
Total	3,050	3,529	45.35	2.85

- Significance Testing indicated that Hispanics stay in treatment significantly longer than Whites and marginally more than Blacks.
- The “Other” Category was too small for statistical comparison.

Frequency Distribution of Youth IOP Visits



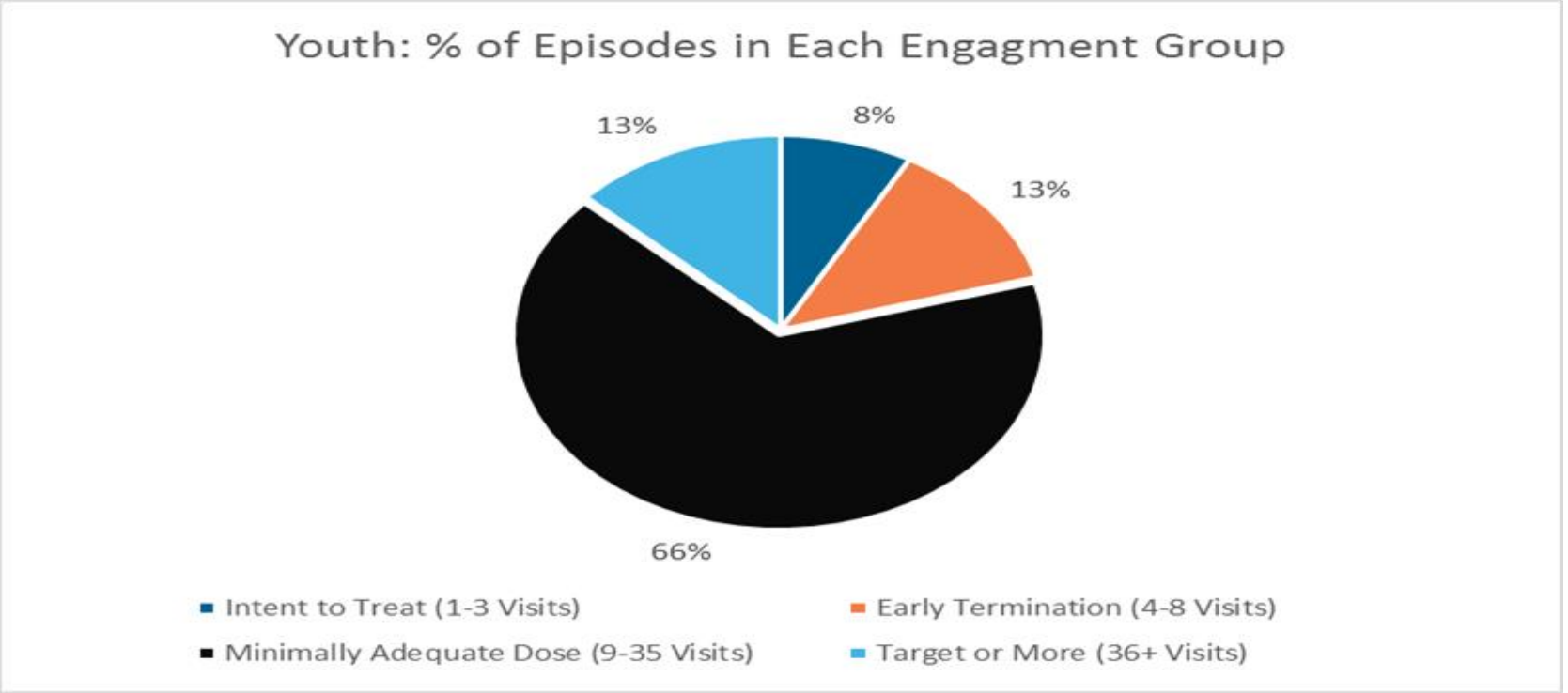
- Individuals attending 1-3 sessions were placed in the “Intent to Treat” category
- Modal Length of Stay for those with 4+ visits was between 27 and 45 days
- Within the LOS most individuals attended for 4-6 weeks and attended 12 to 30 days of IOP

Levels of Engagement in IOP Services

Youth ALOS and Intensity by Engagement Group				
	N	ALOS	Average Services per Week	Percent
Intent to Treat (1-3 Visits)	284	2.75	1.66	8.05%
Early Termination (4-8 Visits)	444	14.04	2.57	12.58%
Minimally Adequate Dose (9-35 Visits)	2,340	44.73	2.98	66.31%
Target or More (36+ Visits)	461	104.85	3.16	13.06%
All Youth	3,529	45.35	2.85	100.00%

- Intent to Treat – Presented to tx. with intention to receive care but may have been triaged to alternative care or dropped out
- Early Termination – attended fewer than 9 IOP sessions
- Minimally Adequate Dosage – Attended up to 35 sessions determined to be a minimally adequate dosage based on clinical consensus
- Target Dose or More – Target dose of 36 sessions (3 x week for 12 weeks) or More – Target dose based on feedback from programs about program design

Levels of Engagement in IOP Services



- Over 66% of sample fell into the Minimally Adequate Dosage Category
- Over 79% of participants had a Minimally Adequate Dosage or more
- Over 20% were either Early Terminators or never engaged in treatment

Connection to Care Following IOP Episodes

Connection to Care Methods and Services Connected To

- Used claims data to determine if youth connected to any outpatient care following an IOP episode
- Computed for 7, 14, and 30 day time periods
- Determined what was the first service that individuals connected to

First Level of Care Connected to Post IOP Episode Youth		
	#	%
Outpatient	767	43%
Evaluation	425	24%
IICAPS	312	17%
Extended Day Treatment	77	4%
Home Health: Other	60	3%
Partial Hosptilization Program	59	3%
Emergency Mobile Psychiatric Services	48	3%
Outpatient with Med Management	42	2%
Residential Treatment Center	5	0.3%

Connection to Care By Gender

Connection to Care post Intensive Outpatient Discharge by Gender Youth IOP Episodes									
	7 Day			14 Day			30 Day		
	Discharges	# Connected to Care	Percent	Discharges	# Connected to Care	Percent	Discharges	# Connected to Care	Percent
Male	1,764	468	27%	1,738	682	39%	1,703	914	54%
Female	1,570	509	32%	1,545	678	44%	1,501	881	59%
All Youth Episodes	**3,334**	**977**	**29%**	**3,283**	**1,360**	**41%**	**3,204**	**1,795**	**56%**

- Rates of Connection To Care are 5% higher for girls vs. boys across all three time periods

Connection to Care By Race/Ethnicity

Connection to Care post Intensive Outpatient Discharge by Gender Youth IOP Episodes									
	7 Day			14 Day			30 Day		
	Discharges	# Connected to Care	Percent	Discharges	# Connected to Care	Percent	Discharges	# Connected to Care	Percent
African American	506	138	27%	493	188	38%	479	260	54%
Asian	19	6	32%	19	6	32%	19	9	47%
Caucasian	1,823	567	31%	1,796	789	44%	1,752	1,019	58%
Hispanic	906	241	27%	896	344	38%	875	457	52%
Other	80	25	31%	79	33	42%	79	50	63%
All Youth Episodes	**3,334**	**977**	**29%**	**3,283**	**1,360**	**41%**	**3,204**	**1,795**	**56%**

- Differences in Rates are highest at the 30 day time frame
- Rates of Connection To Care are highest for Whites, followed by Blacks, and then Hispanics

Connection to Care By Engagement Category

Connection to Care post Intensive Outpatient Discharge Youth IOP Episodes									
	7 Day			14 Day			30 Day		
	Discharges	# Connected to Care	Percent	Discharges	# Connected to Care	Percent	Discharges	# Connected to Care	Percent
Intent to Treat (1-3 Visits)	250	50	20%	242	66	27%	232	96	41%
Early Termination (4-8 Visits)	407	96	24%	397	126	32%	381	180	47%
Minimally Adequate Dose (9-35 Visits)	2,223	643	29%	2,192	916	42%	2,146	1204	56%
Target or More (36+ Visits)	454	188	41%	452	252	56%	445	315	71%
All Youth Episodes	**3,334**	**977**	**29%**	**3,283**	**1360**	**41%**	**3,204**	**1,795**	**56%**

- As would be expected, post episode connection to care increases as the level of engagement increases
- This maybe due to a general tendency to engage in care that expresses itself in both the engagement level and connection to care measures

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Youth IOP Admission Rates

Survival Analysis of Readmission to IOP at 180 days

Variable	Hazard Ratio	P Value
Age	**********	NS
Gender	1.392 (female)	0.004
Race/Ethnicity	**********	NS
DCF Status	**********	NS
Homeless	**********	NS
Engagement Group		
Intent to Treat Early Termination	1.635 1.484	0.005 0.007

- **Rates of re-admission were relatively low ranging from 1% at 31 days for all youth to 13% for girls at 180 days**
- **Females were nearly 40% more likely to readmit to IOP W/in 180 days than males**
- **Those in the Intent to Treat and Early Termination Categories were 48% to 63% more likely to readmit than those that received an adequate dose.**
- **There was no difference between the Minimally Adequate Dosage Group and the Target or more groups in rates of readmission**

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- Those in the Intent to Treat and Early Termination Categories were 48% to 63% more likely to readmit than those that received an adequate dose
- There was no difference between the Minimally Adequate Dosage Group and the Target or more groups in rates of readmission
- Age, DCF Status, Race/Ethnicity and Homeless Status did not differentiate readmission rates

Hospital Admissions During/After IOP Episodes

Hospital Admissions During IOP Episodes

Rate of Higher Level of Care (HLOC) Admission During IOP Episode Youth Intensive Outpatient Episodes			
	Episodes	Admissions to HLOC	Percent
Intent to Treat (1-3 Visits)	443	14	3%
Early Termination (4-8 Visits)	284	6	2%
Minimally Adequate Dose (9-35 Visits)	2,342	122	5%
Target or More (36+ Visits)	461	53	11%
All Youth Episodes	3,530	195	6%

- **The overall rate for admissions to a HLOC during an IOP episode was relatively low, at 6%**
- **Those that remained in treatment the longest had the greatest risk for being hospitalized**

Hospital Admissions During IOP Episodes by Gender

Rate of Higher Level of Care (HLOC) Admission During IOP Youth Intensive Outpatient Episodes by Gender			
	Episodes	Admissions to HLOC	Percent
Male	1,840	62	3%
Female	1,690	133	8%
All Youth Episodes	3530	195	6%

- **Girls were more likely than boys to be admitted to a HLOC during an IOP Episode**

Survival Analysis of Admission to HLOC at 180 days Post IOP Episode

Variable	Hazard Ratio	P Value
Age	-2.93	0.001
Gender	1.615 (female)	0.0001
Race/Ethnicity	**********	NS
DCF Status	1.456	0.008
Homeless	**********	NS
Engagement Group		
Intent to Treat Early Termination	1.604 1.572	0.009 0.002

- **Rates of Hospitalization were 17% for all youth at 180 days**
- **Females were 60% more likely to be hospitalized within 180 days of an IOP Episode than males**
- **DCF Status predicted a 46% increase in hospitalization rates within 180 days post IOP discharge**
- **Those in the Intent to Treat and Early Termination Categories were 60% to 57% more likely to be hospitalized within 180 days post IOP episode t than those that received an adequate dose**
- **There was no difference between the Minimally Adequate Dosage Group and the Target or more groups in rates of Hospital admissions**

IOP Site Visits

Youth IOP Programs – Strengths/Challenges

STRENGTHS

- Strong Documentation
- Comprehensive Assessments
- Comprehensive Services
  - Group Therapy
  - Medication Mgt.
  - Family Involvement & Family Therapy
- Ability to assess and engage external supports
- Collaboration/Coordination

CHALLENGES

- Inconsistent use of standardized screening tools
- Treatment plans lacking measurable goals or documentation of progress
- Screening and Monitoring Substance Abuse issues
- Connection to Peer Support Services

Recommendations

Youth IOP Programs – Strengths/Challenges

1. Align Authorization Parameters with findings regarding typical utilization and optimal dosage of care
2. Learning Collaborative to Improve EBP Implementation
3. Build a PAR program using newly developed measures (C2C, Readmission, Hospital Admissions)
4. Promote incorporation of the PRAC components of TF-CBT into IOP Programming
5. Focus on outreach and engagement as strategies to address health disparities in access to care
6. Promote the utilization of standardized screening and assessment instruments within IOP
7. Consider adopting a preventative approach to early stage substance use/misuse into IOP Programming

Questions & Discussion

Thank you