



Prevalence of DHS and OHA Program Access Prior to First OYA Commitment: An Exploratory Analysis

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Also available online: http://www.oregon.gov/oya/docs/YRS_documents/FeederSystemStudy-Report1.pdf

Executive Summary

Using data from the Oregon Health Authority (OHA) and the Department of Human Services (DHS), the Oregon Youth Authority (OYA) explored the historical social service program access patterns of youth prior to their first commitment to either OYA probation or close custody. This “feeder system” analysis focused on the following research questions: 1) what proportion of youth accessed one or more social service programs prior to their first OYA commitment; 2) when did their first contact with a given program occur relative to their commitment date; and 3) does program utilization prior to OYA commitment differ by certain youth characteristics?

The sample included 10,017 youth who began their first commitment to either OYA probation or close custody between January 2000 and July 2013. Data were examined related to each youth’s individual access and/or contact with Medical Assistance, Alcohol and Drug Treatment Services, Mental Health Treatment Services, Self-Sufficiency, Foster Care, and Child Protective Services.

Findings indicate that 90% of youth who were committed to OYA probation or close custody for the first time between 2000 and 2013 accessed one or more service program areas prior to commitment. The vast majority of these youth accessed and/or had contact with two or more different programs prior to involvement with OYA.

The most commonly accessed program was Medical Assistance (80%), followed by Self-Sufficiency (64%), Mental Health Treatment Services (58%), Alcohol and Drug Treatment Services (40%), Child Protective Services (21%), and Foster Care (19%). With regard to the timing of program involvement, contact with Child Protective Services appears to occur first on average, about 6 years prior to initial OYA commitment. Contact with Foster Care and access to Self-Sufficiency and Medical Assistance all occur an average of 5 years prior to OYA commitment. First contact with Mental Health Treatment Services occurs about 3 years prior to first involvement with OYA, and Alcohol and Drug Treatment Services are accessed within the year prior to a youth’s first OYA commitment, on average.

Data also indicate statistically significant relationships between program involvement and differences in commitment type, sex, race/ethnicity, and risk level. Findings suggest that youth committed to OYA probation were involved in virtually all program areas at a disproportionately higher rate compared to youth committed to close custody. Female youth are more likely to have been involved in all program areas prior to OYA commitment relative to male youth. Program involvement prior to OYA commitment differed by race/ethnicity as well, such that youth of color are almost always more likely to have had contact with each program area compared to Caucasian youth. Finally, results indicate that previous DHS and OHA program involvement is significantly related to higher scores on OYA’s risk assessment tools with few exceptions.

Because of the exploratory nature of the current analysis, findings are subject to broad interpretation and are expected to generate more questions than answers. Additional analyses are needed to aid in the interpretation of the findings and ultimately translate them into action items. Efforts are currently underway to examine individual and family-level characteristics and service utilization patterns that impact the probability (i.e., risk) of a youth’s involvement with OYA. With continued study and analysis, we hope to be able to identify connections and correlations between social service and criminal justice agencies in order to better coordinate earlier interventions and produce more positive outcomes for at-risk children, youth, and families.

Introduction and Research Questions

The Oregon Youth Authority (OYA) provides services to reduce the likelihood of subsequent criminal activity; unfortunately, many of these services are provided following a crime and victimization of citizens. Certainly, a proactive approach that prevents criminal activity is preferable to a reactive response that occurs after victimization. Identifying the child and family characteristics that increase or decrease the risk of a youth's involvement with OYA represents the first step toward an ability to prevent criminal activity and ultimately deter youth from OYA. Many youth who become involved with OYA are identified as higher risk at an earlier stage by social workers, school teachers, local police, juvenile departments, and others providing services in our communities. In a similar way, OYA researchers are attempting to identify higher risk youth long before they become involved with OYA. This "feeder system" analysis will be duplicated with other agencies including Child Welfare, the Department of Corrections (DOC), and the Oregon State Hospital.

OYA has obtained individual and family-level records of historical service access and program utilization from several partnering agencies including the Department of Human Services (DHS), Oregon Health Authority (OHA), DOC, the Department of Education, Employment Department, and State Police. The amount and scope of available data has allowed OYA researchers to identify numerous opportunities for analysis with an eye toward identifying risk and protective factors among youth that may contribute to involvement with OYA. However, it is necessary to first conduct more general and descriptive analyses to fully understand the data and establish an overall picture of the overlap among agencies. Therefore, the current analysis explores the social service program usage of youth prior to first commitment to either OYA probation or close custody. This preliminary, exploratory analysis focused on the following research questions: 1) what proportion of youth accessed¹ one or more DHS or OHA programs prior to first OYA commitment; 2) when did youth first come into contact with a given program (i.e., how long before their involvement with OYA did they first access these services); and 3) does program involvement prior to OYA commitment differ by key factors such as commitment type, sex, race/ethnicity, and risk level?

Data

Data related to historical individual-level access and/or contact with six major DHS and OHA program areas (i.e., Self-Sufficiency, Medical Assistance, Foster Care, Child Protective Services, Mental Health Treatment, and Alcohol and Drug Treatment) were linked together with records of youth who were committed to either OYA probation or "close custody" (i.e., incarceration) between January 2000 and July 2013. Data from DHS included records from Self-Sufficiency (January 2000-December 2013) and its subprograms such as the Supplemental Nutrition Assistance Program (SNAP; i.e., food stamps), Temporary Assistance to Needy Families (TANF), Employment Related Daycare and Services, and assistance programs for domestic violence survivors and their children. Also from DHS, records related to historical contact with the Child Welfare programs of Foster Care (January 1998-December 2010) and Child Protective Services (i.e., child maltreatment investigations; January 1993- December 2010) were included. Data from OHA consisted of records from Medical Assistance (January 2000-December 2013) and its subprograms (e.g., Poverty-Level Medical Care, Medicaid, and Foster/Substitute Care Medical), Mental Health Treatment Services (e.g., Child/Adolescent Basic Outpatient and

¹ While involvement in many social service programs requires that one voluntarily enroll in services (e.g., Medical Assistance), involvement with others is involuntary (e.g., Child Protective Services) and/or mandated (e.g., some Alcohol and Drug Treatment services). However, when discussing youth involvement with the selected social service program areas, the author uses the terms program "access," "utilization," "enrollment," involvement," and "contact" somewhat interchangeably throughout this report.

Crisis Services; January 2000-December 2013), and Alcohol and Drug Treatment Services (e.g., Outpatient and Residential treatment; January 2000-December 2013).

For each of the DHS and OHA program areas, the researcher identified the first record of program access that occurred prior to each sampled youth's OYA commitment date. Many youth had multiple episodes of DHS and/or OHA program contact; however, only the first record was pulled for each youth for the purposes of the current exploratory analysis. Key elements associated with the initial program episode (e.g., episode start date, service/subprogram type, and age of youth at enrollment) were extracted and merged together with data related to each youth's first OYA commitment. Variables were then created to determine the length of time between the date the youth first accessed each program and the date of OYA commitment.

Sample

The sample included 10,017 youth who began their first commitment to either OYA probation or OYA close custody between January 2000 and July 2013. Demographic characteristics are presented in Table 1. The majority of youth in the sample were male (83%), White (66%), and between the ages of 14 and 17 years (85%) at the time of first commitment to OYA. Nearly half of sampled youth were convicted in Oregon counties surrounding either the Portland metro area (Multnomah, Washington, and Clackamas) or the Salem metro area (Marion, Polk, and Yamhill).²

Fifty-seven percent of youth in the sample were entering OYA for the first time on a probation commitment. The remaining 42% of the sample were entering OYA for the first time on a close custody commitment, with 15% of these youth sentenced as adults under DOC jurisdiction. Among 37% of sampled youth, the most severe charge for which they were committed was a property offense, followed by 28% with a person (i.e., violent) offense, and 20% with a sex offense as the most severe charge. The most severe committing charges for the remaining 15% of the sample included Substance Abuse (6%), Criminal-Other (4%), Weapons offenses (3%), and Violation of a Public Order (2%). The average score on the OYA Recidivism Risk Assessment (ORRA) for all sampled youth was 24.6 ($SD=15.9$) indicating that on average, sampled youth had a 24.6% probability of being convicted of a new felony within 3 years of their commitment to probation or release from close custody. The average score on the OYA Recidivism Risk Assessment-Violent (ORRA-V) was 15.4 ($SD=10.4$), indicating that the average sampled youth had a 15.4% probability of being convicted of a new violent felony within the same period of time.³

Findings

To reiterate, this preliminary exploratory analysis focused on youth-level involvement with Self-Sufficiency, Medical Assistance, Mental Health Treatment Services, Alcohol and Drug Treatment Services, and Child Welfare programs prior to their first commitment to OYA. Findings are reported on the individual youth level—not the family or case level. That is, each of the youth whose records indicate involvement in a given DHS or OHA program were listed as individuals receiving these services, and were not necessarily always part of a family or case receiving services. Parental and/or family contact with these program areas (e.g., parent's participation in alcohol, drug, or mental health treatment) and its potential relationship to a youth's involvement with OYA will be explored in a future analysis.

² Per the terms of the data sharing agreement established between OYA and DHS|OHA, some of the 36 Oregon counties were collapsed into groups by DHS|OHA staff (see Table 1).

³ Because of the extensive time period covered by the data (i.e., 2000-2013), Youth Typology information was not available for the majority of sampled youth and is therefore not reported.

Table 1.

Demographic characteristics of sampled youth (n=10,017).

Variable	n	Percent	Mean	SD	Range
Sex					
Male	8,335	83%			
Female	1,682	17%			
Race/Ethnicity					
Caucasian	6,636	66%			
Hispanic/Latino	1,884	19%			
African American	820	8%			
Native American	423	4%			
Asian	142	1%			
Other/Unknown	112	1%			
Age at Commitment			15.6 years	1.4 years	12-19 years
12 – 13 years	801	8%			
14 – 15 years	3,491	35%			
16 – 17 years	5,054	50%			
18 – 19 years	671	7%			
County of Conviction					
Multnomah	1,390	14%			
Washington	992	10%			
Clackamas	1,026	10%			
Yamhill, Polk, Marion	1,548	15%			
Columbia, Clatsop, Tillamook, Lincoln	596	6%			
Benton, Linn, Lane	1,392	14%			
Douglas, Coos, Curry	671	7%			
Josephine, Jackson	873	9%			
Jefferson, Deschutes, Crook	480	5%			
All others ⁴	1,049	11%			
Commitment Type					
OYA Probation	5,769	57%			
OYA Close Custody	2,765	28%			
DOC Close Custody	1,483	15%			
Most Severe Committing Charge					
Property	3,717	37%			
Person	2,758	28%			
Sex Offense	2,012	20%			
All others ⁵	1,530	15%			
ORRA			24.6	15.9	2.4-98.4
ORRA-V			15.4	10.4	1.9-81.8

⁴ Hood River, Wasco, Sherman, Gilliam, Wheeler, Grant, Harney, Malheur, Klamath, Lake, Morrow, Umatilla, Wallowa, Baker.⁵ Substance Abuse (6%), Criminal-Other (4%), Weapons offenses (3%), and Violation of a Public Order (2%).

The prevalence of youth involvement with each DHS/OHA program area was assessed by examining the proportion of youth who accessed one or more services prior to their commitment to either OYA probation or close custody. The time period between a youth's first contact with a given program and their commitment to OYA was explored by the examining dates of initial program access and the date of OYA commitment. Patterns of program involvement related to commitment type, sex, race/ethnicity, and risk level were assessed using Chi square and correlation analyses.

Prevalence and Timing of Program Access Prior to OYA Commitment

Findings indicate that the overwhelming majority (90%) of youth committed to OYA for the first time between 2000 and 2013 were previously involved with one or more of the service program areas included in this analysis at least one time. Among these youth, 12% accessed a single program, 50% had contact with two to three programs, 33% accessed between four and five programs, and 5% had contact with all six program areas at least once prior to OYA commitment. The following sections along with Tables 2 and 3 provide more detail regarding youth access to each of the program areas.

Medical Assistance. The program area with the largest proportion of enrollment by sampled youth prior to their first OYA commitment was Medical Assistance. Overall, about 80% of sampled youth (n=7,991) were enrolled in one or more Medical Assistance programs at least one time prior to their first commitment to OYA probation or close custody. The majority of these youth first accessed Medical Assistance through enrollment in the Poverty-Level Medical Care program (PLMC) or via their involvement in either Foster/Substitute Medical Care or the Self-Sufficiency program, TANF (i.e., TANF-Related Medical Care).

The average time between a youth's first access of Medical Assistance and their first commitment to OYA probation or close custody was 5 years ($SD=4$ years). Stated differently, youth who accessed Medical Assistance did so for the first time approximately 5 years before their OYA commitment date. The average age of first enrollment in Medical Assistance was 11 years old ($SD=4$ years). Nearly half (47%) of the youth who accessed Medical Assistance did so for the first time between the ages of 11-15 years old.

Self-Sufficiency. The program area with the next largest proportion of enrollment by sampled youth prior to their first OYA commitment was Self-Sufficiency. Findings indicate that 64% of sampled youth (n=6,448) participated in one or more Self-Sufficiency programs at least once prior to their first commitment to either OYA probation or close custody. Unlike the other program areas examined here, Self-Sufficiency benefit programs are administered on a household or case-level basis. Therefore, this figure indicates that prior to OYA commitment, 64% of sampled youth were listed as an individual on at least one Self-Sufficiency case. The most common Self-Sufficiency programs in which the youth participated for the first time prior to OYA commitment were SNAP and TANF.

The average timing of youth's access to Self-Sufficiency programs is similar to the timing of accessing Medical Assistance. The average time between a youth's first access of Self-Sufficiency and their first OYA commitment was also 5 years ($SD=4$ years), indicating that the youth who accessed this program began their enrollment about 5 years prior to their involvement with OYA. The average age of youth at first enrollment in Self-Sufficiency was 10 years old ($SD=4$ years). About a third of youth who accessed Self-Sufficiency did so for the first time between the ages of 6 and 10 years, and 44% enrolled for the first time between the ages of 11 and 15.

Mental Health Treatment Services. Data indicate that approximately 58% of sampled youth (n=5,773) accessed one or more programs via Mental Health Treatment Services at least once prior to first

Table 2.

Proportion of youth involved in programs prior to OYA commitment, by program area (n=10,017).

Program Area/Type	n	Proportion of youth who accessed program before first OYA commitment
Medical Assistance	7,991	80%
Poverty-Level Medical Care (PLMC)	2,511	25%
Foster/Substitute Care Medical	1,979	20%
TANF-Related Medical Care	1,900	19%
Children's Health Insurance Program (CHIP)	740	7%
TANF Extended	450	4%
Other Medical Assistance	411	4%
Self-Sufficiency	6,448	64%
Supplemental Nutrition Assistance Program (SNAP)	4,972	49%
Temporary Assistance for Needy Families (TANF)	836	8%
Employment and Non-Employment Related Daycare	453	5%
Domestic Violence Programs	133	1%
Other Self-Sufficiency	54	<1%
Mental Health Treatment Services	5,773	58%
Child/Adolescent Basic Outpatient	4,789	48%
Crisis Services	717	7%
Psychiatric Residential Treatment	146	2%
Psychiatric Day Treatment	91	1%
Other Mental Health Treatment Services	30	<1%
Alcohol & Drug Treatment Services	3,963	40%
Outpatient drug treatment	2,941	29%
Outpatient alcohol treatment	790	8%
Residential Drug and Alcohol Treatment	182	2%
Other Alcohol and Drug Treatment Services	50	<1%
Child Welfare: Child Protective Services	2,085	21%
Threat of harm	977	10%
Neglect	541	5%
Physical abuse	438	4%
Sexual abuse	265	3%
Child Welfare: Foster Care	1,950	19%
No program access prior to OYA commitment	947	10%

Table 3.

Age of youth at first access and time to OYA commitment (n=10,017).

Program Area/Type	n	%	Mean	SD	Range
Medical Assistance	7,991				
Time between first access and OYA commitment			5 years	4 years	5 days-13.5 years
Age at first program access			11 years	4 years	Infant-19 years
Infant – 5 years	941	12%			
6 – 10 years	2,407	30%			
11 – 15 years	3,740	47%			
16 and older	903	11%			
Self-Sufficiency	6,448				
Time between first access and OYA commitment			5 years	4 years	6 days-13.6 years
Age at first program access			10 years	4 years	Infant-19 years
Infant – 5 years	852	13%			
6 – 10 years	2,202	34%			
11 – 15 years	2,818	44%			
16 and older	576	9%			
Mental Health Treatment Services	5,773				
Time between first access and OYA commitment			3 years	3 years	5 days-18.5 years
Age at first program access			12 years	3 years	Infant-19 years
Infant – 5 years	237	4%			
6 – 10 years	1,325	23%			
11 – 15 years	3,386	59%			
16 and older	825	14%			
Alcohol & Drug Treatment Services	3,963				
Time between first access and OYA commitment			1 year	1 year	5 days-13.5 years
Age at first program access			15 years	2 years	Infant-19 years
Infant – 5 years	11	<1%			
6 – 10 years	8	<1%			
11 – 15 years	2,715	68%			
16 and older	1,229	31%			
Child Welfare: Child Protective Services	2,085				
Time between first access and OYA commitment			6 years	4 years	2 days-15.5 years
Age at first program contact			10 years	4 years	Infant-18 years
Infant – 5 years	328	16%			
6 – 10 years	754	36%			
11 – 15 years	936	45%			
16 and older	67	3%			
Child Welfare: Foster Care	1,950				
Time between first access and OYA commitment			5 years	4 years	8 days-19 years
Age at first program contact			10 years	4 years	Infant-18 years
Infant – 5 years	331	17%			
6 – 10 years	434	22%			
11 – 15 years	1,052	54%			
16 – 19 years	133	7%			

commitment to OYA probation or close custody. It is worth articulating that Mental Health Treatment Services data is not based on cases or families, rather it is reported at the individual level. This figure therefore represents individual-level—not family-level—access to Mental Health Treatment Services, meaning these youth were themselves enrolled at least once in a mental health treatment program prior to their first commitment to OYA. The majority of these youth first accessed Mental Health Treatment Services via Child/Adolescent Basic Outpatient treatment.

Youth who accessed Mental Health Treatment Services did so an average of only 3 years ($SD=3$ years) before their first commitment to OYA probation or close custody. Youth who accessed Mental Health Treatment Services were slightly older on average at the time of their first enrollment ($M=12$ years; $SD=3$ years) compared to the average age of first contact with Medical Assistance and Self-Sufficiency. Nearly two thirds (59%) of youth who accessed Mental Health Treatment Services prior to their involvement with OYA were between the ages of 11 and 15 at the time.

Alcohol and Drug Treatment Services. Approximately 40% of sampled youth ($n=3,963$) participated in one or more programs within Alcohol and Drug Treatment Services at least one time prior to their first OYA commitment. Again, this figure represents individual-level access to Alcohol and Drug Treatment Services, meaning the 40% of sampled youth who accessed this program area were themselves enrolled in treatment at one point prior to involvement with OYA. Nearly all of these youth first accessed Alcohol and Drug Treatment Services via participation in either outpatient drug treatment or outpatient alcohol treatment.

Youth who accessed Alcohol and Drug Treatment Services did so for the first time only 1 year prior to their first OYA commitment ($SD=1$ year), and around the age of 15 years old ($SD=2$ years). Sixty-eight percent first became involved with Alcohol and Drug Treatment services between the ages of 11 and 15, and 31% began their involvement when they were 16 or older.

Child Welfare: Child Protective Services. Findings indicate that 21% of sampled youth ($n=2,085$) were victims of one or more substantiated occurrences of child maltreatment filed with Child Protective Services prior to their first OYA commitment. The majority of these youth were victims of threat of harm and/or neglect; however, many were victims of physical and/or sexual abuse as well.

The average time between a youth's first contact with Child Protective Services and commitment to OYA probation or close custody was approximately 6 years ($SD=4$ years). The average age of youth at first involvement with Child Protective Services was slightly under 10 years ($SD=4$ years). More than half of youth who were in contact with Child Protective Services prior to their involvement with OYA were first listed as a victim of maltreatment when they were 10 years of age or younger.

Child Welfare: Foster Care. Data indicate that 19% of sampled youth ($n=1,950$) experienced one or more out-of-home foster care episodes prior to their first commitment to either OYA probation or close custody.

Youth who were placed in Foster Care prior to their involvement with OYA were first removed from home about 5 years ($SD=4$ years) before their first OYA commitment date. On average, youth who were placed in Foster Care were 10 years old ($SD=4$ years) at the time of their first removal from home. Nearly 40% of these youth were removed for the first time when they were under the age of 10, and 54% were first removed between the ages of 11 and 15 years. Seven percent were removed for the first time at the age of 16 or older.

Estimates of Overlap Among Program Areas

Data indicate that the majority of youth who were involved with DHS or OHA accessed more than one program area at least once prior to OYA commitment. Therefore, additional analyses were performed to explore patterns among youth who accessed multiple services and estimate where the most overlap among programs may occur.

Because of the large proportions of youth who accessed Medical Assistance and Self-Sufficiency, results show a fair amount of overlap between each of these programs and all other program areas. Specifically, 88-94% of youth who accessed at least one other program area were also involved with Medical Assistance; and 70-84% of those who utilized any other program also accessed Self-Sufficiency. Findings suggest more distinguishable patterns of program overlap among youth who were involved with Child Protective Services, Foster Care, Mental Health Treatment Services, and Alcohol and Drug Treatment Services. For example, 78% of youth who had contact with Child Protective Services and 82% who had contact with Foster Care were also involved with Mental Health Treatment Services at least once prior to OYA commitment. Forty-five percent of youth who had contact with Child Protective Services and 42% who had contact with Foster Care also accessed Alcohol and Drug Treatment Services. Sixty-seven percent of youth who were involved with Alcohol and Drug Treatment Services also used Mental Health Treatment Services prior to OYA commitment; and 53% of youth who were involved in Foster Care also had contact with Child Protective Services.

Program Access by OYA Commitment Type

Additional analyses (i.e., Chi square) were conducted to determine whether involvement with social service programs prior to initial OYA commitment differed by commitment type (i.e., probation versus close custody). The Chi square statistic allows researchers to determine whether differences in one variable are related to differences in another variable or to chance alone. In other words, the Chi square statistic examines patterns between variables and provides evidence as to whether these patterns are significantly different than what would be expected through random variation or chance. Chi square is used in the current analysis to determine whether DHS or OHA program involvement is related to OYA commitment type. Statistically speaking, if there are no significant differences in program involvement based on commitment type (i.e., thus suggesting that variations in program involvement are due to chance alone), the proportion of youth who had contact with each program would be equally distributed across the six possible combinations of program access (did access vs. did not access) and commitment type (OYA probation, OYA close custody, and DOC close custody).⁶ To illustrate, we know that 57% of the youth in the current sample were committed to OYA probation, 28% were committed to OYA close custody, and 15% were committed to close custody under DOC jurisdiction. We also know that 7,991 youth out of the sample of n=10,017 (about 80%) accessed Medical Assistance programs at least once prior to OYA commitment. Therefore, if Medical Assistance program involvement does not differ by commitment type, one would expect by pure chance that 57% of the 7,991 youth (4,555) who accessed Medical Assistance would also have a commitment type of OYA probation. Likewise, one would expect 28% of these youth (2,238) to have a commitment type of OYA close custody; and 15% (1,199 youth) to have a commitment type of DOC close custody.

⁶ Specifically, (1) committed to OYA probation and accessed the program, (2) committed to OYA probation and did not access the program, (3) committed to OYA close custody and accessed the program, (4) committed to OYA close custody and did not access the program, (5) committed to DOC close custody and accessed the program, and (6) committed to DOC close custody and did not access the program.

Findings indicate that not only do program access patterns differ among youth committed to probation versus close custody, they also differ among close custody youth committed under OYA jurisdiction versus DOC jurisdiction. Results are shown in Table 4.

Medical Assistance. There are significant differences in Medical Assistance program access among youth committed to OYA probation relative to all youth committed to close custody regardless of jurisdiction, $\chi^2(2) = 299.7, p < .001$. Sixty-one percent of youth who accessed medical Assistance programs were committed to OYA probation, 27% were committed to close custody under OYA jurisdiction, and 12% were committed to close custody under DOC jurisdiction. Results indicate that the proportion of youth committed to close custody under DOC jurisdiction who accessed Medical Assistance was significantly smaller than expected (12% vs. 15% expected); whereas the proportion of youth who accessed Medical Assistance and were committed to OYA probation was larger than expected (61% vs. 57% expected). In other words, fewer DOC close custody youth and more OYA probation youth were involved with Medical Assistance than what would be expected by chance alone. The proportion of youth who accessed Medical Assistance programs and were committed to close custody under OYA jurisdiction is similar to the value expected by the Chi square analysis (27% vs. 28% expected). The magnitude of the differences in Medical Assistance involvement among the commitment types (i.e., the effect size) is small to moderate,⁷ Cramer's $V = .17$.

Self-Sufficiency. There were also significant differences among the various commitment types regarding access to Self-Sufficiency programs, $\chi^2(2) = 63.9, p < .001$. Sixty percent of youth who accessed Self-Sufficiency programs prior to OYA involvement had a commitment type of OYA probation. Twenty-six percent of youth who accessed Self-Sufficiency programs prior to OYA involvement had a commitment type of OYA close custody, and 13% had a commitment type of close custody under DOC jurisdiction. According to the statistical analysis, Self-Sufficiency programs were accessed by a larger-than-expected proportion of youth committed to OYA probation (60% vs. 57% expected), and a smaller-than-expected proportion of youth committed to close custody regardless of jurisdiction (26% vs. 28% expected for OYA close custody; 13% vs. 15% expected for DOC close custody); however the magnitude of the effect is small, Cramer's $V = .08$

Mental Health Treatment Services. Patterns of involvement with Mental Health Treatment Services also differed significantly among youth committed to OYA probation versus close custody, $\chi^2(2) = 257.9, p < .001$. Findings indicate 60% of youth who accessed Mental Health Treatment Services prior to their involvement with OYA were committed to OYA probation, 30% were committed to close custody under OYA jurisdiction, and 10% were committed to close custody under DOC jurisdiction. Chi square analyses indicate that the proportion of youth who were committed to close custody under DOC jurisdiction and also accessed Mental Health Treatment Services was significantly smaller than expected (10% vs. 15% expected). In contrast, the proportions of youth who accessed Mental Health Treatment Services and were committed to either OYA probation or OYA close custody were both larger than expected (60% vs. 57% expected for OYA probation; 30% vs. 28% expected for OYA close custody). The magnitude of the effect is small to moderate, Cramer's $V = .16$

Alcohol and Drug Treatment Services. Differences in Alcohol and Drug Treatment Services access were also significant based on commitment type, $\chi^2(2) = 199.3, p < .001$. Sixty-three percent of youth who accessed Alcohol and Drug Treatment Services prior to their involvement with OYA were committed to OYA

⁷ Based on Cohen's (1992) estimates for correlations and Chi square contingency tables where values of .10 represent a small effect, values of .30 reflect a moderate effect, and values of .50 represent a large effect; Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112(1), 155-159.

Table 4.

Program access by youth commitment type (n=10,017).

Program Area/Type	Accessed program prior to commitment		χ^2 (df)	Significance (p)
	n	%		
Medical Assistance (n=7,991)			299.7(2)	<.001
OYA Probation	4,854	61% ⁺		
OYA Close Custody	2,189	27% nd		
DOC Close Custody	948	12% ⁻		
Self-Sufficiency (n=6,448)			63.9(2)	<.001
OYA Probation	3,895	60% ⁺		
OYA Close Custody	1,696	26% ⁻		
DOC Close Custody	857	13% ⁻		
Mental Health Treatment Services (n=5,773)			257.9(2)	<.001
OYA Probation	3,480	60% ⁺		
OYA Close Custody	1,719	30% ⁺		
DOC Close Custody	574	10% ⁻		
Alcohol & Drug Treatment Services (n=3,963)			199.3(2)	<.001
OYA Probation	2,496	63% ⁺		
OYA Close Custody	1,122	28% nd		
DOC Close Custody	345	9% ⁻		
Child Welfare: Child Protective Services (n=2,085)			24.5(2)	<.001
OYA Probation	1,223	59% nd		
OYA Close Custody	622	30% ⁺		
DOC Close Custody	240	11% ⁻		
Child Welfare: Foster Care (n=1,950)			159.3(2)	<.001
OYA Probation	1,039	53% ⁻		
OYA Close Custody	739	38% ⁺		
DOC Close Custody	172	9% ⁻		

⁺ Proportion who accessed program is larger than expected; ⁻ Proportion who accessed program is smaller than expected.

nd No difference between proportion expected to access program and proportion that indeed accessed program.

probation, 28% were committed to close custody under OYA jurisdiction, and 9% were committed to close custody under DOC jurisdiction. Statistically speaking, the proportion who accessed Alcohol and Drug Treatment Services and had a commitment type of OYA probation is larger than expected (63% vs. 57% expected), and the proportion of youth who accessed these services and had a commitment type of DOC close custody is smaller than expected (9% vs. 15% expected). The proportion of youth who were committed to close custody under OYA jurisdiction and also accessed Alcohol and Drug Treatment Services is the same as what would be expected by chance alone (28% and 28% expected). The magnitude of the effect for commitment type and Alcohol and Drug Treatment Services access is small, Cramer's $V = .14$.

Child Welfare: Child Protective Services. Contact with Child Protective Services also differed significantly by commitment type, $\chi^2(2) = 24.5, p < .001$. Fifty-nine percent of youth who were victims of at least one substantiated child maltreatment claim prior to OYA involvement were committed to OYA probation, 30% were committed to close custody under OYA jurisdiction, and 11% were committed to close custody under DOC jurisdiction. The proportion of youth committed to OYA close custody who had at least one prior Child Protective Services claim is significantly larger than expected by the Chi square analysis (30% vs. 28% expected). In contrast, the proportion of youth committed to close custody under DOC jurisdiction who had prior involvement with Child Protective Services is significantly smaller than expected (11% vs. 15% expected). The proportion of youth committed to OYA probation who were victims of one or more substantiated child maltreatment claims is not significantly different than what would be expected by chance alone (59% vs. 57% expected). The magnitude of the effect in this case is also small to moderate, Cramer's $V = .15$.

Child Welfare: Foster Care. Differences in contact with Foster Care were also significant based on commitment type, $\chi^2(2) = 159.3, p < .001$. Fifty-three percent of youth who were placed in Foster Care at least one time prior to their involvement with OYA were committed to OYA probation, 38% were committed to close custody under OYA jurisdiction, and 9% were committed to close custody under DOC jurisdiction. The proportions of youth who were placed in Foster Care and committed to either OYA probation or DOC close custody were smaller than expected by the Chi square analysis (53% vs. 57% expected for OYA probation; 9% vs. 15% for DOC close custody). The proportion of youth with prior Foster Care involvement and a commitment type of OYA close custody is significantly larger than expected (38% vs. 28% expected). The magnitude of the effect is again small, Cramer's $V = .13$.

Program Access by Sex

Chi square analyses were also conducted to determine whether there were any differences in DHS or OHA program involvement based on sex. To reiterate, if there are no significant differences in program involvement by sex (i.e., suggesting that variations in program involvement are due to chance alone), the proportion of youth who had contact with each program prior to OYA involvement would be equally distributed across the four possible combinations of program access (did access vs. did not access) and sex (male vs. female).⁸ For instance, 83% of the current sample of youth is male and 17% are female. If program involvement prior to OYA commitment is not different for male youth versus female youth, one would expect by pure chance that 83% of the youth who accessed any of the selected programs would be male, and the remaining 17% would be female. Results indicate that female youth are consistently overrepresented in the

⁸ Specifically, (1) male and accessed the program, (2) male and did not access the program, (3) female and accessed the program; and (4) female and did not access the program.

category of having accessed each of the program areas, whereas male youth are overrepresented in the category of having *not* accessed a given program area. Findings are displayed in Table 5.

Medical Assistance. Patterns of involvement in Medical Assistance programs differed significantly by sex, $\chi^2(1) = 55.7, p < .001$. Data indicate that 18% of youth who accessed Medical Assistance programs at least one time before commitment to OYA are female, which is a larger proportion of females than the statistical analysis expected (17% expected). In contrast, 82% of youth who accessed Medical Assistance programs prior to OYA involvement are male (83% expected). Although both proportions are significantly different than what was expected by the Chi square analysis, the magnitude of the effect is small, Cramer's $V = .08$.

Self-Sufficiency. There were also significant differences in Self-Sufficiency access by sex, $\chi^2(1) = 14.9, p < .001$. Similar to Medical Assistance access, findings indicate that 18% of youth who accessed Self-Sufficiency programs prior to their involvement with OYA are female and 82% are male. The proportion of male youth offenders who were involved with Self-Sufficiency prior to OYA commitment is the same as what was expected by the statistical analysis (82% and 82% expected); however the proportion of female offenders who accessed Self-Sufficiency programs is significantly larger than expected (18% vs. 17% expected). The magnitude of the effect of sex and Self-Sufficiency access is very small, Cramer's $V = .04$.

Mental Health Treatment Services. Involvement in Mental Health Treatment Services differed significantly between male and female youth, $\chi^2(1) = 109.7, p < .001$. Among youth who accessed Mental Health Treatment Services at least once prior to OYA commitment, 80% are male and 20% are female. The percentage of female youth who accessed Mental Health Treatment Services is significantly larger than what would be expected by the Chi square analysis (20% vs. 17% expected); whereas the proportion of male youth who had prior involvement with Mental Health Treatment Services is smaller than expected (80% vs. 83% expected). The magnitude of the effect is small, Cramer's $V = .10$.

Alcohol and Drug Treatment Services. Alcohol and Drug Treatment Services were also utilized to different extents based on sex, $\chi^2(1) = 68.6, p < .001$. Findings indicate that 79% of the youth who were involved in Alcohol and Drug Treatment Services prior to OYA commitment are male, and 21% are female. Again, the proportion of female youth who accessed Alcohol and Drug Treatment Services prior to OYA involvement is significantly larger than the statistical analysis expected (21% vs. 17% expected), and the percentage of male youth who accessed these services is significantly smaller than expected (79% vs. 83% expected). However, the magnitude of the effect is quite small, Cramer's $V = .08$.

Child Welfare: Child Protective Services. Statistically significant differences were also found between male and female youth regarding contact with Child Protective Services prior to OYA involvement, $\chi^2(1) = 137.1, p < .001$. A significantly larger-than-expected proportion of youth who were victims of at least one substantiated child maltreatment claim prior to OYA commitment are female (25% vs. 17% expected), and a significantly smaller-than-expected proportion of these youth are male (75% vs. 83% expected). The size of the effect in this case is small, Cramer's $V = .12$.

Child Welfare: Foster Care. Differences in Foster Care placement by sex are identical to the differences found in contact with Child Protective Services, $\chi^2(1) = 127.9, p < .001$. Findings indicate that 75% of youth who were placed in Foster Care at least once prior to OYA commitment are male, and 25% are female. This reflects a significantly larger-than-expected proportion of female youth having prior involvement with Foster Care (25% vs. 17% expected), and a significantly smaller-than-expected proportion of male youth

Table 5.

Program access by sex (n=10,017).

Program Area/Type	Accessed program prior to commitment		χ^2 (df)	Significance (p)
	n	%		
Medical Assistance (n=7,991)			55.7(1)	<.001
Male	6,537	82% ⁻		
Female	1,454	18% ⁺		
Self-Sufficiency (n=6,448)			14.9(1)	<.001
Male	5,296	82% nd		
Female	1,152	18% ⁺		
Mental Health Treatment Services (n=5,773)			109.7(1)	<.001
Male	4,610	80% ⁻		
Female	1,163	20% ⁺		
Alcohol & Drug Treatment Services (n=3,963)			68.6(1)	<.001
Male	3,146	79% ⁻		
Female	817	21% ⁺		
Child Welfare: Child Protective Services (n=2,085)			137.1(1)	<.001
Male	1,557	75% ⁻		
Female	528	25% ⁺		
Child Welfare: Foster Care (n=1,950)			127.9(1)	<.001
Male	1,622	75% ⁻		
Female	327	25% ⁺		

⁺ Proportion who accessed program is larger than expected; ⁻ Proportion who accessed program is smaller than expected.

nd No difference between proportion expected to access program and proportion that indeed accessed program.

with previous Foster Care placement (75% vs. 83% expected). The magnitude of the effect is small, Cramer's $V = .11$.

Program Access by Race/Ethnicity

A final set of Chi square analyses were conducted to assess whether DHS and OHA program utilization differed by youth race and/or ethnicity. If differences in program involvement are due to chance alone and not to a youth's particular self-reported race or ethnicity, the proportion of youth who accessed each program prior to OYA commitment would be equally distributed across the 12 possible combinations of program access (did access vs. did not access) and race/ethnicity (Caucasian, African American, Hispanic, Native American, Asian, and Other/Unknown).⁹ The current sample is 66% Caucasian, 19% Hispanic/Latino, 8% African American, 4% Native American, 1% Asian, and 1% Other/Unknown. If program utilization prior to OYA commitment is not different among each of the represented racial/ethnic groups, one would expect proportionate involvement in each of the selected programs. Table 6 shows that a small number of significant differences were found in program access patterns based on race/ethnicity.¹⁰

Medical Assistance. Chi square analysis indicate that involvement with Medical Assistance prior to OYA commitment was significantly different based on youth race/ethnicity, $\chi^2(5) = 45.1, p < .001$. Although the overall Chi square statistic was significant at the $p < .001$ level, all but a one contrast among the specific racial/ethnic groups were insignificant. Findings indicate that youth in the Caucasian, Hispanic/Latino, Native American, Asian, and Other/Unknown racial/ethnic groups accessed Medical Assistance programs at the rate expected by the statistical analysis. However, 9% of youth who accessed Medical Assistance programs prior to OYA commitment are African American, which is proportionally larger relative to the number of African American youth in the sample (8%). The magnitude of the effect for differences in Medical Assistance accessed based on race/ethnicity is small, Cramer's $V = .11$.

Self-Sufficiency. More differences in program access based on race/ethnicity were found among youth who were involved with Self-Sufficiency programs prior to OYA commitment, $\chi^2(5) = 73.8, p < .001$. Findings indicate that the group of youth who accessed Self-Sufficiency programs is 64% Caucasian, 19% Hispanic/Latino, 10% African American, 5% Native American, 1% Asian, and 1% Other/Unknown. The proportions of Hispanic/Latino, Asian, and Other/Unknown youth who were involved with Self-Sufficiency prior to OYA commitment are equal to their racial/ethnic groups' representation in the entire sample. However, the proportion of Caucasian youth who accessed Self-Sufficiency is significantly smaller than expected by the statistical analysis (64% vs. 66% expected). In contrast, both African American and Native American youth are significantly overrepresented in the group who accessed Self-Sufficiency programs prior to OYA commitment (10% vs. 8% expected for African Americans; and 5% vs. 4% expected for Native Americans). Again, the magnitude of the effect is small, Cramer's $V = .09$.

Mental Health Treatment Services. Involvement in Mental Health Treatment Services prior to OYA commitment also differed significantly among racial/ethnic groups, $\chi^2(5) = 119.4, p < .001$. Data show that

⁹ Specifically, (1) Caucasian and accessed the program, (2) Caucasian and did not access the program, (3) Hispanic/Latino and accessed the program, (4) Hispanic/Latino and did not access the program (5) African American and accessed the program, (6) African American and did not access the program (7) Native American and accessed the program, (8) Native American and did not access the program, (9) Asian and accessed the program, (10) Asian and did not access the program, (11) Other/Unknown and accessed the program, and (12) Other/Unknown and did not access the program.

¹⁰ An additional set of Chi square analyses were conducted to determine whether differences in program access by racial/ethnic identity varied according to the particular crime committed by the youth. Results were no different than those presented on race/ethnicity alone.

Table 6.

Program access by race/ethnicity (n=10,017).

Program Area/Type	Accessed program prior to commitment		χ^2 (df)	Significance (p)
	n	%		
Medical Assistance (n=7,991)			45.1(5)	<.001
Caucasian	5,193	65% nd		
Hispanic/Latino	1,527	19% nd		
African American	709	9% ⁺		
Native American	359	5% nd		
Asian	107	1% nd		
Other/Unknown	96	1% nd		
Self-Sufficiency (n=6,448)			73.8(5)	<.001
Caucasian	4,138	64% ⁻		
Hispanic/Latino	1,224	19% nd		
African American	608	10% ⁺		
Native American	317	5% ⁺		
Asian	80	1% nd		
Other/Unknown	81	1% nd		
Mental Health Treatment Services (n=5,773)			119.4(5)	<.001
Caucasian	3,969	69% ⁺		
Hispanic/Latino	894	15% ⁻		
African American	516	9% ⁺		
Native American	263	5% nd		
Asian	61	1% nd		
Other/Unknown	70	1% nd		
Alcohol & Drug Treatment Services (n=3,963)			16.6(5)	<.01
Caucasian	2,584	65% nd		
Hispanic/Latino	783	20% nd		
African American	321	8% nd		
Native American	193	5% ⁺		
Asian	44	1% nd		
Other/Unknown	38	1% nd		
Child Welfare: Child Protective Services (n=2,085)			26.8(5)	<.001
Caucasian	1,392	67% nd		
Hispanic/Latino	342	17% ⁻		
African American	176	8% nd		
Native American	123	6% ⁺		
Asian	26	1% nd		
Other/Unknown	26	1% nd		
Child Welfare: Foster Care (n=1,950)			66.1(5)	<.001
Caucasian	1,324	68% nd		
Hispanic/Latino	271	14% ⁻		
African American	213	11% ⁺		
Native American	105	5% ⁺		
Asian	19	1% nd		
Other/Unknown	18	1% nd		

⁺ Proportion who accessed program is larger than expected; ⁻ Proportion who accessed program is smaller than expected.

nd No difference between proportion expected to access program and proportion that indeed accessed program.

69% of youth who accessed Mental Health Treatment Services are Caucasian, 15% are Hispanic/Latino, 9% are African American, 5% are Native American, 1% are Asian, and 1% are Other/Unknown. The percentages of Other/Unknown, Asian, and Native American youth do not differ significantly from those expected by the statistical analysis. Both the proportion of Caucasian youth and the proportion of African American youth who were involved in Mental Health Treatment Services are larger than expected (69% vs. 66% expected for Caucasian youth; 9% vs. 8% expected for African American youth). The number of Hispanic/Latino and Asian youth is significantly lower than expected by the Chi square. The effect size for Mental Health Treatment Services involvement by race/ethnicity is small, Cramer's $V = .11$.

Alcohol and Drug Treatment Services. Alcohol and Drug Treatment Services program access differed by race/ethnicity, $\chi^2(5) = 16.6, p < .001$; however the significant overall Chi square statistic appears to be driven by differences in program access among Native American youth alone. Specifically, the proportions of Caucasian (65%), Hispanic/Latino (20%), African American (8%), Other/Unknown (1%), and Asian (1%) youth are equal to what the statistical analyses expected. However, data indicate that a significantly larger-than-expected proportion of Native American youth were involved with Alcohol and Drug Treatment Services prior to OYA commitment (5% vs. 4% expected). The magnitude of the effect for race/ethnicity and Alcohol and Drug Treatment Services is very small, Cramer's $V = .04$.

Child Welfare: Child Protective Services. Contact with Child Protective Services prior to OYA commitment is different among the various racial/ethnic groups, $\chi^2(5) = 26.8, p < .001$. Data indicate that 67% of youth who were victims of one or more substantiated child maltreatment claims prior to OYA commitment are Caucasian, 17% are Hispanic/Latino, 8% are African American, 6% are Native American, 1% are Asian, and 1% are Other/Unknown. According to the statistical analysis, the percentages of Caucasian, African American, Other/Unknown, and Asian youth who had contact with Child Protective Services are commensurate with expectations. The proportion of Hispanic/Latino youth is smaller than expected (17% vs. 19% expected), and the proportion of Native American youth is larger than expected (6% vs. 4% expected). The effect size is again very small, Cramer's $V = .05$.

Child Welfare: Foster Care. Patterns of involvement in Foster Care prior to OYA commitment are also different by race/ethnicity, $\chi^2(5) = 66.1, p < .001$. Sixty-eight percent of youth who were placed in Foster Care at least one time prior to their involvement with OYA are Caucasian, followed by 14% Hispanic/Latino, 11% African American, 5% Native American, 1% Other/Unknown, and 1% Asian. As data suggests with Child Protective Services, the proportions of Caucasian, Other/Unknown, and Asian youth who had contact with Foster Care are equal to those expected by the statistical analysis. The percentage of Hispanic/Latino youth is smaller than expected (14% vs. 19% expected), and the percentages of African American and Native American youth who were involved with Foster care are larger than expected (11% vs. 8% for African Americans; 5% vs. 4% for Native Americans). The magnitude of the effect in this case is also small, Cramer's $V = .08$.

Program Access by Risk Level

Bivariate point-biserial correlation analyses were conducted to determine whether patterns of DHS and OHA program access are related to youths' scores on the ORRA and ORRA-V risk assessments. A youth's ORRA score represents the likelihood that he/she will be convicted of a new felony within 3 years of their commitment date to OYA probation or their release date from close custody. ORRA-V scores reflect the likelihood that a youth will be convicted of a new violent felony within the same period of time. Point-biserial

correlation coefficients (r_{pb}) and significance values for associations between ORRA, ORRA-V, and program access are presented in Table 7.

Scores on both ORRA and ORRA-V are positively and significantly correlated to involvement in each program area with few exceptions (i.e., ORRA and Mental Health Treatment Services; ORRA-V and Child Protective Services). The association between ORRA and contact with Child Protective Services is the only significant negative correlation ($r_{pb} = -.027, p < .01$), suggesting that youth who were victims of at least one substantiated child maltreatment claim prior to OYA commitment may have lower risk estimates.

While nearly all relationships between risk and program access are statistically significant, virtually all correlation coefficients are less than $r_{pb} = .10$ indicating very small effects. The strongest correlations are found between each risk estimate and involvement in Alcohol and Drug Treatment Services. Data indicate a moderate positive correlation for ORRA ($r_{pb} = .259, p < .01$), suggesting that youth with higher estimated risk to recidivate at the time of OYA commitment were more likely to have accessed Alcohol and Drug Treatment Services at least one time prior to their involvement with OYA. A small to moderate positive correlation was also found for ORRA-V ($r_{pb} = .165, p < .01$), suggesting that youth with higher estimated risk to recidivate with a violent crime were more likely to have accessed these services prior to their commitment.

Interpretation

This preliminary analysis allowed researchers to explore youth-level involvement in select DHS and OHA programs prior to first commitment to either OYA probation or close custody. Findings indicate the overwhelming majority of youth (90%) accessed and/or had contact with at least one program area one or more times prior to becoming involved with OYA. The most commonly accessed program area was Medical Assistance, followed by Self-Sufficiency, Mental Health Treatment Services, Alcohol and Drug Treatment Services, and Child Welfare. For the most part, youth initially came into contact with each of these program areas when they were between the ages of 11 and 15 years old.

With regard to the sequencing of program involvement, contact with Child Protective Services appears to occur first on average (i.e., 6 years before OYA commitment), followed by Foster Care, Self-Sufficiency, and Medical Assistance approximately 5 years before youth first become involved with OYA. First enrollment in Mental Health Treatment Services tends to occur within 3 years, and involvement with Alcohol and Drug Treatment Services takes place only 1 year prior to a youth's first OYA commitment. There are also discernible patterns in the timing of first program access relative to youths' first involvement with OYA. Specifically, the proportion of youth who access each of the program areas increases as time to OYA commitment decreases. Medical Assistance, Self-Sufficiency, and Child Protective Services involvement increases steadily relative to that of Mental Health Treatment Services, Alcohol and Drug Treatment Services, and Foster Care, which increase rapidly in the year leading up to OYA involvement. See Figure 1, below, and Figures 2 through 7 at the end of this report for graphical displays of the timing of first program access relative to a youth's first commitment to OYA probation or close custody.

There are a number of different possible explanations for the sharp increase in contact with Mental Health Treatment Services, Alcohol and Drug Treatment Services, and Foster Care within the year leading up to a youth's first OYA commitment. Commitment to OYA probation and/or close custody represents the final phase in the continuum of Oregon juvenile justice interventions. That is, youth who are committed to OYA often have histories of law enforcement referrals to county juvenile departments and have experienced informal and/or formal county supervision. Therefore, it is very likely that the upsurge of youth who come into contact with certain programs in the months leading up to their first OYA commitment is a direct result

Table 7.

Program access by risk level (n=10,017).

Program Area/Type	Point-biserial r_{pb}	Significance (p)
Medical Assistance (n=7,991)		
ORRA	.027	<.01
ORRA-V	.025	<.05
Self-Sufficiency (n=6,448)		
ORRA	.036	<.01
ORRA-V	.031	<.01
Mental Health Treatment Services (n=5,773)		
ORRA	.012	.241
ORRA-V	.028	<.01
Alcohol & Drug Treatment Services (n=3,963)		
ORRA	.259	<.01
ORRA-V	.165	<.01
Child Welfare: Child Protective Services (n=2,085)		
ORRA	-.027	<.01
ORRA-V	-.003	.786
Child Welfare: Foster Care (n=1,950)		
ORRA	.046	<.01
ORRA-V	.074	<.01

of increasing involvement in the juvenile justice system. For instance, youth who are under county juvenile department supervision may be referred for services to treat issues with substance abuse and/or mental health. Youth on supervision may also be placed in Foster/Substitute Care programs under certain circumstances, for example if they are experiencing homelessness or if their current living situation is considered unsafe.

Pertaining to program overlap, findings indicate that virtually all of the youth who were involved with DHS or OHA accessed more than one program area prior to OYA commitment. Data showed extensive overlap between each program area and both Medical Assistance and Self-Sufficiency, however this is likely due to the large proportions of youth who accessed both of these program areas prior to OYA commitment. Potentially more significant overlap patterns were found among Mental Health Treatment Services, Child Protective Services, and Foster Care. Eighty-two percent of youth who were placed in Foster Care and 78% of youth who were victims of maltreatment substantiated by Child Protective Services were also involved in Mental Health Treatment Services prior to OYA commitment. This finding may suggest that youth who come into contact with Child Protective Services and/or Foster Care have greater mental health needs; however, with such a substantial overlap it is also reasonable to speculate as to whether contact with either of these Child Welfare programs prompts *mandatory* participation in Mental Health Treatment Services. If so, the extent of the overlap detected here is more likely a reflection of Child Welfare policy. Additional analyses regarding the timing and sequencing of contact with each of these program areas are necessary to explore this possibility.

Although not as large as the overlap between Child Welfare programs and Mental Health Treatment Services, findings suggest noteworthy overlap among Child Protective Services, Foster Care, and Alcohol and Drug Treatment Services. To illustrate, 42% of youth who experienced Foster Care and 45% of youth who had contact with Child Protective Services were also involved with Alcohol and Drug Treatment Services at least once prior to OYA commitment. This may corroborate other findings that show youth who experience child maltreatment and Foster Care have higher rates of substance abuse;¹¹ but they may also reflect other research suggesting that youth who have been placed in Foster Care are more likely to receive treatment for substance abuse than youth who have never been in Foster Care.¹² Further analyses are necessary to determine whether the overlap between Child Welfare programs and Alcohol and Drug Treatment Services signifies a greater need for these services and/or a system that is more responsive to that need.

Certainly, the results reported here indicate that involvement with selected social service programs prior OYA commitment is extensive (i.e., 90%); however, this information should not necessarily be interpreted in a negative light. There are a variety of different reasons why an individual (or family) might access social services at one point or another during their lives, particularly within the United States in the previous 6 to 8 years. Specifically, records from DHS and OHA cover the time period during which the United States experienced one of the most significant economic recessions since the Great Depression. Many individuals and families faced considerable financial instability during this time, and enrollment in social

¹¹ World Health Organization (2006). Child maltreatment and alcohol. Retrieved August 5, 2014: http://www.who.int/violence_injury_prevention/violence/world_report/factsheets/fs_child.pdf.

¹² Substance Abuse and Mental Health Services Administration (2005). Substance use and need for treatment among youths who have been in foster care. Retrieved August 5, 2014: <http://www.oas.samhsa.gov/2k5/FosterCare/FosterCare.htm>

service programs increased dramatically across the nation.¹³ Although the current findings do not necessarily reflect an upsurge in enrollment during the years of the recession,¹⁴ it is important to consider the potential impact of local and national economic trends when interpreting any results. Alternatively, the current findings could simply be a reflection of the greater needs of the OYA population, and the high rate of involvement in DHS and OHA programs could indicate that youth are indeed gaining access to the kinds of services they require.

Differences in Program Access by Commitment Type, Sex, Race/Ethnicity, and Risk Level

Commitment type. Results indicate that a disproportionately large number of youth committed to OYA probation accessed nearly every program area prior to OYA involvement. In contrast, a disproportionately large number of youth committed to close custody under DOC jurisdiction *did not* access DHS and OHA programs prior to OYA commitment. This discrepancy could be due to a number of different reasons. For example, it is possible that youth committed to OYA probation have more extensive but less serious criminal histories that prompted frequent contact with local juvenile departments through which they were connected with service programs. On the other hand, youth whose first contact with OYA is a commitment to close custody under DOC jurisdiction may have committed a single egregious criminal act that immediately prompted the most serious juvenile justice response (i.e., incarceration). Again, differences in program involvement by commitment type are likely due to a number of reasons, none of which are determinable without further analyses and the inclusion of additional data (i.e., from local juvenile departments).

The largest difference in program access by commitment type is found within Foster Care among youth committed to close custody under OYA jurisdiction. The proportion of youth committed to OYA close custody who had contact with Foster Care prior to their involvement with OYA is 10% larger than expected by the statistical analysis. That is, youth committed to OYA close custody represent 28% of the overall study sample and 38% of sampled youth who were placed in Foster Care prior to OYA commitment. Further analyses are needed in order to interpret this finding, however the overlap between Foster Care and OYA commitment reflects other research on the phenomenon of youth who are involved in both Child Welfare and juvenile justice systems (i.e., “crossover” or “dual status” youth).¹⁵

Sex. When we consider differences in program involvement prior to OYA commitment that are due to youth characteristics, probably the most consistent results are found when we examine differences based on sex. Findings indicate that disproportionately large numbers of female youth offenders were involved in all program areas prior to OYA commitment. In contrast, disproportionately small numbers of male youth offenders were involved in DHS and OHA programs prior to OYA commitment. The largest discrepancies are found within Child Protective Services and Foster Care. Although female youth represent only 17% of the overall study sample, they make up 25% of sampled youth who were victims of one or more substantiated child maltreatment claims and 25% of sampled youth who were placed in Foster Care at least once prior to OYA commitment. The difference in contact with Child Protective Services between male and female youth is

¹³ Pilkauskas, N. V., Currie, J. M., & Garfunkel, I. (2012). The Great Recession, public transfers, and material hardship. *Social Service Review, 86*(3), 401-427.

¹⁴ 2007-2009; National Bureau of Economic Research (2010). Business Cycle Dating Committee. Retrieved June 24, 2014: <http://www.nber.org/cycles/sept2010.html>.

¹⁵ Feyerherm, W., & Johnson, S. (2012). Juvenile Justice and Child Welfare: Estimates of the crossover between Oregon’s systems. Report prepared for the Oregon Youth Development Council. Retrieved July 22, 2014 from <http://www.ode.state.or.us/wma/ydd/1aaregonjuvenilejusticeandchildwelfarecrossoveryouth.pdf>.

no doubt due to the higher prevalence of sexual abuse among female youth in the sample. To illustrate, of the female youth who were involved with Child Protective Services prior to OYA commitment, 22% were victims of sexual abuse. Among male youth who had contact with Child Protective Services, 10% were victims of sexual abuse. These findings are in line with other Child Welfare research that demonstrates female children are more likely to be victims of abuse (particularly sexual abuse).¹⁶ The higher prevalence of child abuse among female youth offenders in the sample likely contributes to their disproportionate representation in Foster Care prior to OYA commitment. Indeed, 57% of female youth who had contact with Child Protective Services were also involved with Foster Care; whereas only 47% of male youth had contact with both program areas prior to OYA commitment.

Race/Ethnicity. Although the effect sizes are small, the current study revealed statistically significant differences in program utilization by race/ethnicity. Data indicate that a disproportionately large number of African American youth were involved with Medical Assistance, Self-Sufficiency, Mental Health Treatment Services, and Foster Care prior to OYA commitment. The largest discrepancy is found within Foster Care, where African American youth represent 11% of those who were involved with Foster Care prior to OYA commitment and only 8% of the overall study sample. Native American youth were overrepresented within several program areas as well, including Self-Sufficiency, Alcohol and Drug Treatment Services, Foster Care, and Child Protective Services. Specifically, Native American youth make up only 4% of the overall study sample and 6% of those who were victims of at least one maltreatment claim substantiated by Child Protective Services. In contrast, findings indicate that a disproportionately small number of Hispanic/Latino youth had contact with Mental Health Treatment Services, Child Protective Services, and Foster Care. Hispanic/Latino youth represent 19% of the study sample, but 17% of those who had contact with Child Protective Services, 15% of those who accessed Mental Health Treatment Services, and 14% of those who were involved with Foster Care prior to OYA commitment. Finally, data show that a disproportionately small number of Caucasian youth accessed Self-Sufficiency programs, and a disproportionately large number were involved with Mental Health Treatment Services before OYA commitment.

Interpretation of these results is incomplete without acknowledging the known relationships between race/ethnicity, program access/utilization, and other factors such as socioeconomic status, language, and culture. Previous research has shown discrepancies in the rates of health care access for minority populations relative to non-minorities; however the magnitude of these differences tends to decrease when socioeconomic factors are statistically controlled.¹⁷ Other research comparing Hispanic/Latino and Caucasian populations' access to health care demonstrates that differences between groups may be due to limited English knowledge and less to race/ethnicity.¹⁸ Cultural differences in access to care—particularly mental health care—have also been discussed in the explanation of racial/ethnic variations in program utilization. For example, cultural factors such as beliefs about seeking traditional versus alternative care, culturally appropriate ways of expressing care needs, and varied pathways to treatment may all contribute significantly to perceived differences in program access among different racial/ethnic groups.¹⁹ It is also likely that a variety of barriers may prevent equal access to care and public assistance for certain racial/ethnic

¹⁶ Pereda, N., Guilera, G., Forns, M., & Gómez-Benito, J. (2009). The international epidemiology of child sexual abuse: A continuation of Finkelhor (1994). *Child Abuse and Neglect*, 33(6), 331-342.

¹⁷ Institute of Medicine (2002). *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*. Washington, DC: The National Academies Press.

¹⁸ Weinick, R. M. & Krauss, N. A. (2000). Racial/Ethnic differences in children's access to care. *American Journal of Public Health*, 90(11), 1771-1774.

¹⁹ Snowden, L. R., & Yamada, A. (2005). Cultural differences in access to care. *Annual Review of Clinical Psychology*, 1, 143-166.

groups (e.g., lacking legal documentation and varying levels of acculturation). Without a doubt, additional focused analyses on the relationships between race/ethnicity and DHS and OHA program utilization is critical in order to more fully and accurately interpret the current findings.

Risk level. In general, current findings indicate that pre-commitment involvement with every program area except Child Protective Services is related to higher scores on two OYA risk tools (although effect sizes are small to moderate, r_{pb} value range = .025 - .259). The largest effects are found between scores on each risk tool and involvement in Alcohol and Drug Treatment Services, suggesting that youth who accessed these services were at higher risk to recidivate at the time of OYA commitment, on average. However, because causality cannot be inferred from correlation analyses, caution is advised when interpreting these results. It is not possible to conclude from this analysis that involvement in certain programs causes recidivism risk to increase; rather the results may simply be a reflection of the greater needs of higher risk youth. Further examination is necessary to determine the nature of the relationship between DHS and OHA program involvement and recidivism risk.

Remaining Questions and Next Steps

Ultimately, further analyses are needed in order to both aid in the interpretation of the current findings and translate the information into action items. Because this analysis was limited to a general description of pre-OYA program access, the timing of that access, and differences in program involvement related to certain characteristics, our findings are subject to broad interpretation and generate many more questions than answers. For example, among the youth who accessed one or more program areas, what proportion of this access was prompted by local criminal justice referrals (i.e., arrests) and/or mandated as a condition of county juvenile department supervision? Sampled youths' histories of prior adjudications and referrals were not examined in the current analysis, and more importantly, county juvenile department data has not yet been obtained. Even though they are preliminary, our findings confirm the absolute necessity of obtaining and including county juvenile department data in future analyses so that we may be able to interpret patterns in program utilization thoroughly and accurately.

Other research questions left to pursue include parental and/or family enrollment in selected program areas and its relationship to a youth's involvement with OYA, as well as the proportion of individuals who access programs prior to their first involvement with DOC and the Oregon State Hospital. In the immediate future, planned analyses include the examination of individual and family-level characteristics and service utilization patterns that impact the probability (i.e., risk) of a young person's involvement with OYA. With continued study and analysis, we hope to be able to identify connections and correlations between social service and criminal justice agencies in order to better coordinate earlier interventions and produce more positive outcomes for at-risk children, youth, and families.

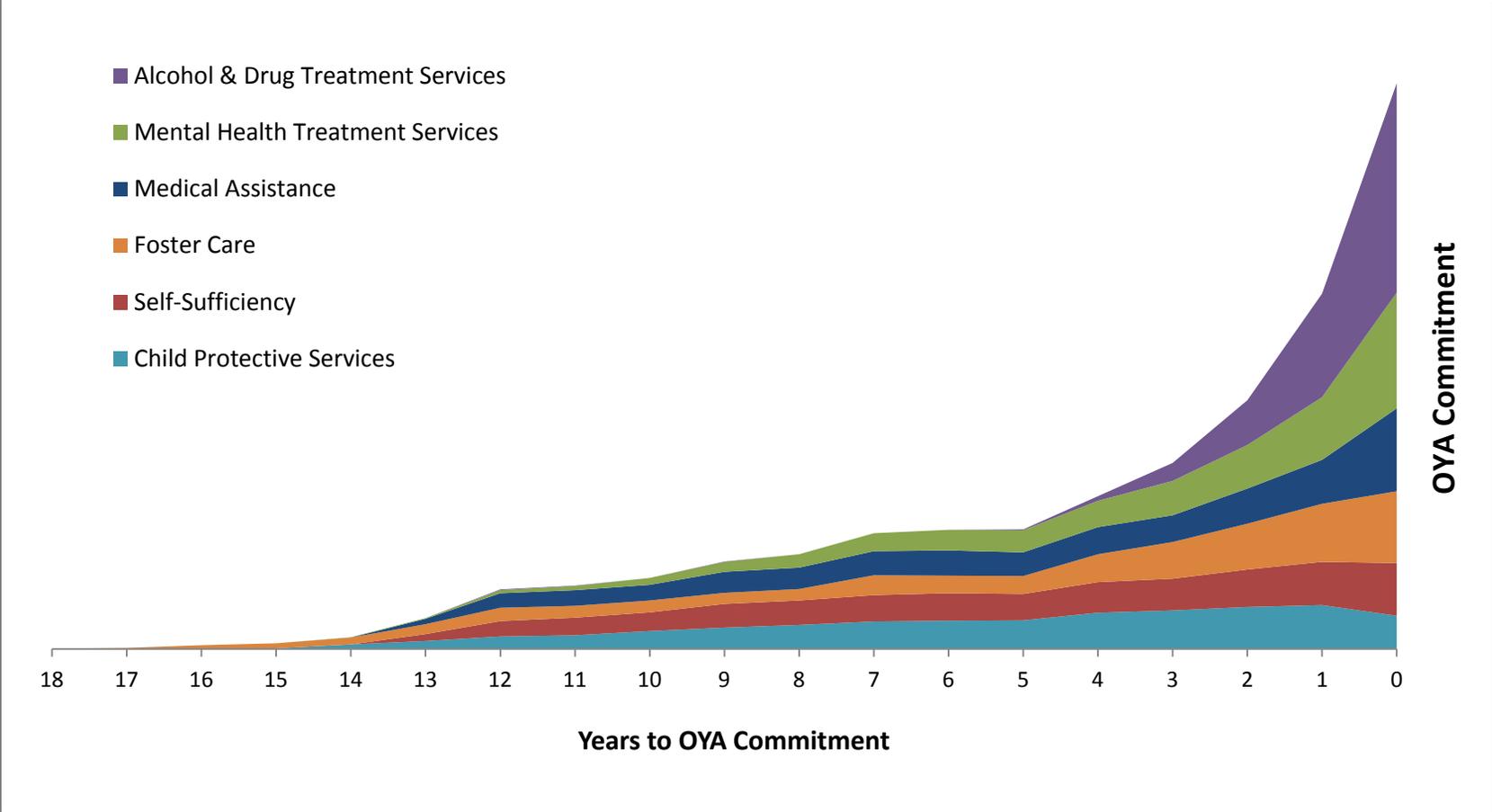


Figure 1. Timing of first program access relative to a youth's first commitment to OYA probation or close custody, all programs.

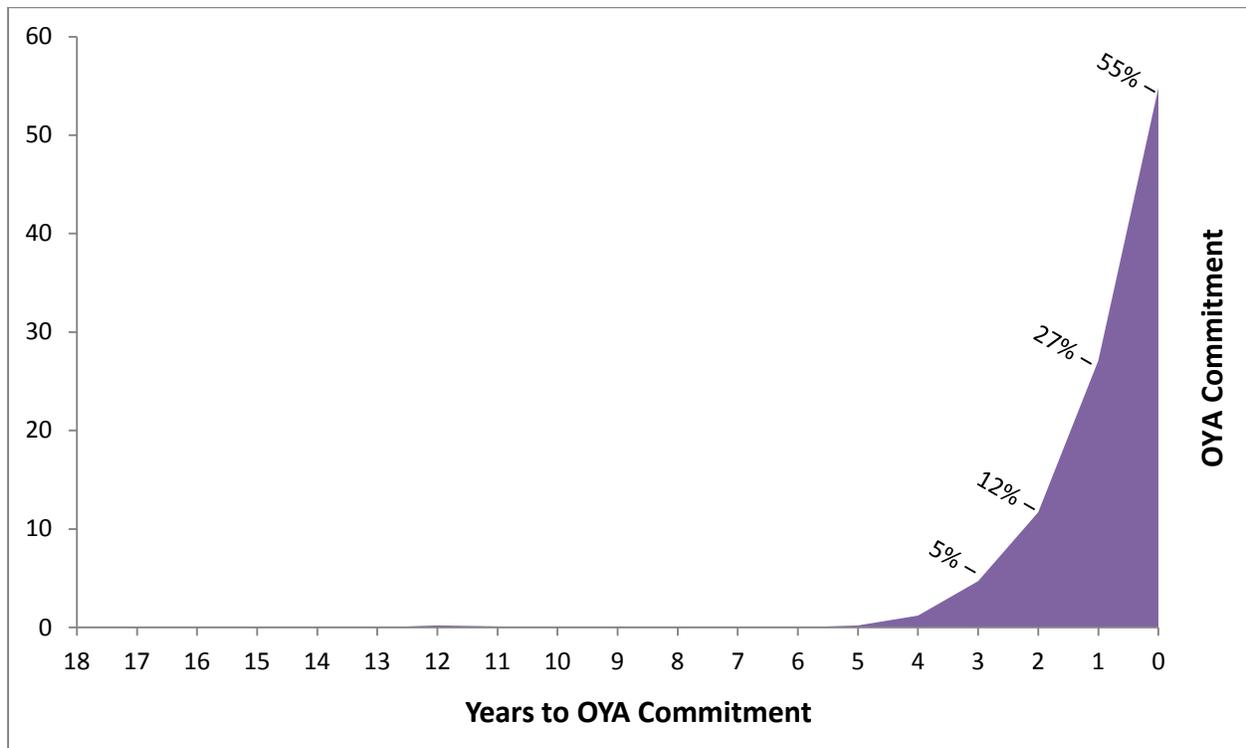


Figure 2. Timing of first Alcohol and Drug Treatment Services program access relative to a youth's first commitment to OYA probation or close custody.

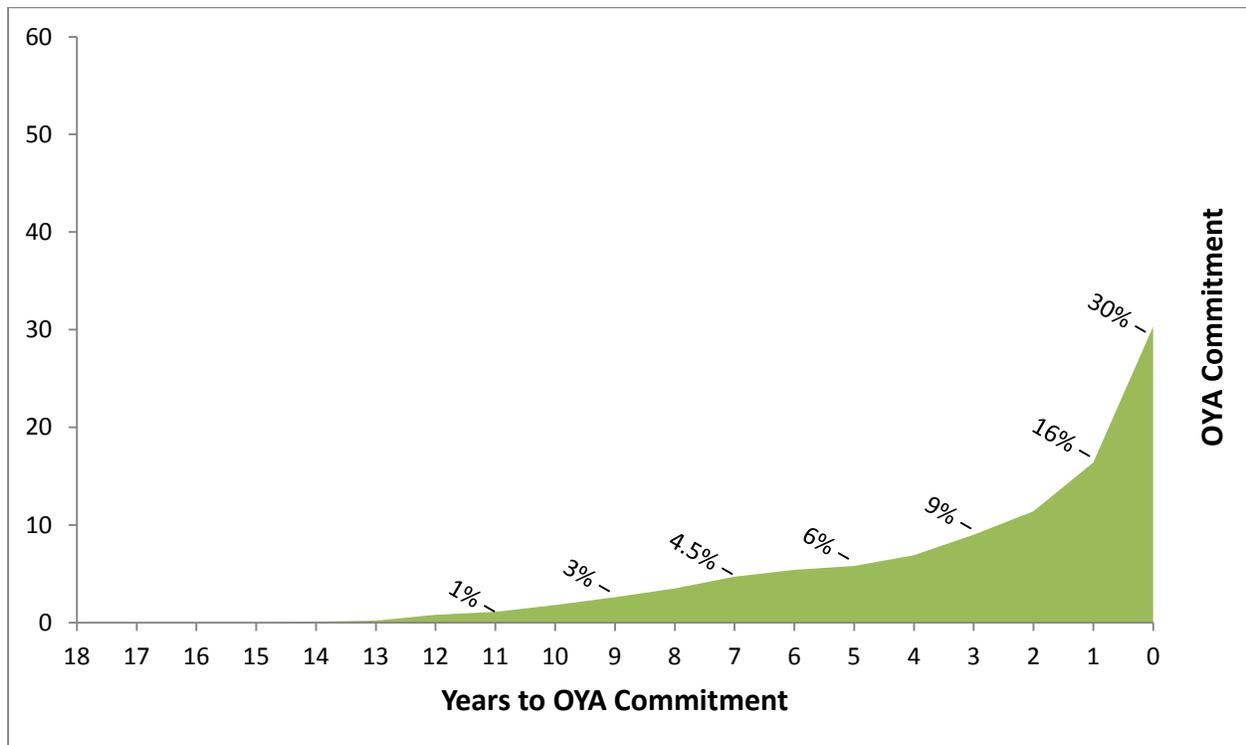


Figure 3. Timing of first Mental Health Treatment Services program access relative to a youth's first commitment to OYA probation or close custody.

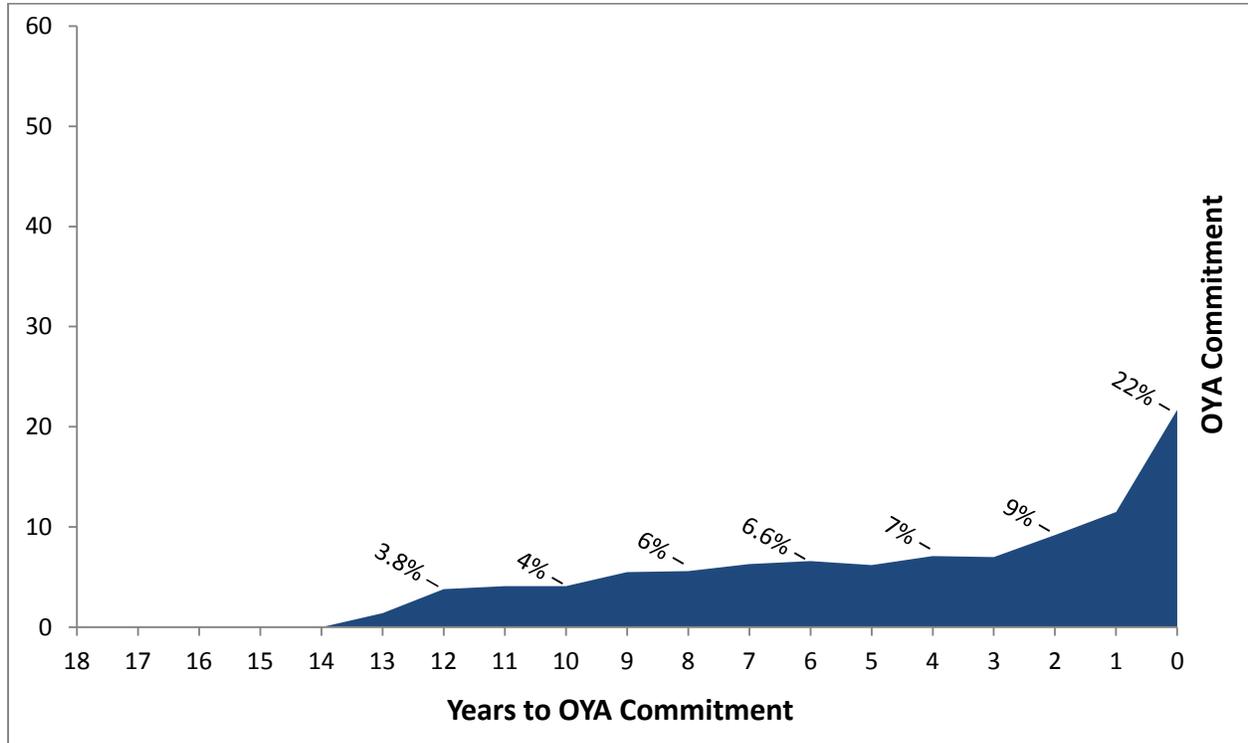


Figure 4. Timing of first Medical Assistance program access relative to a youth's first commitment to OYA probation or close custody.

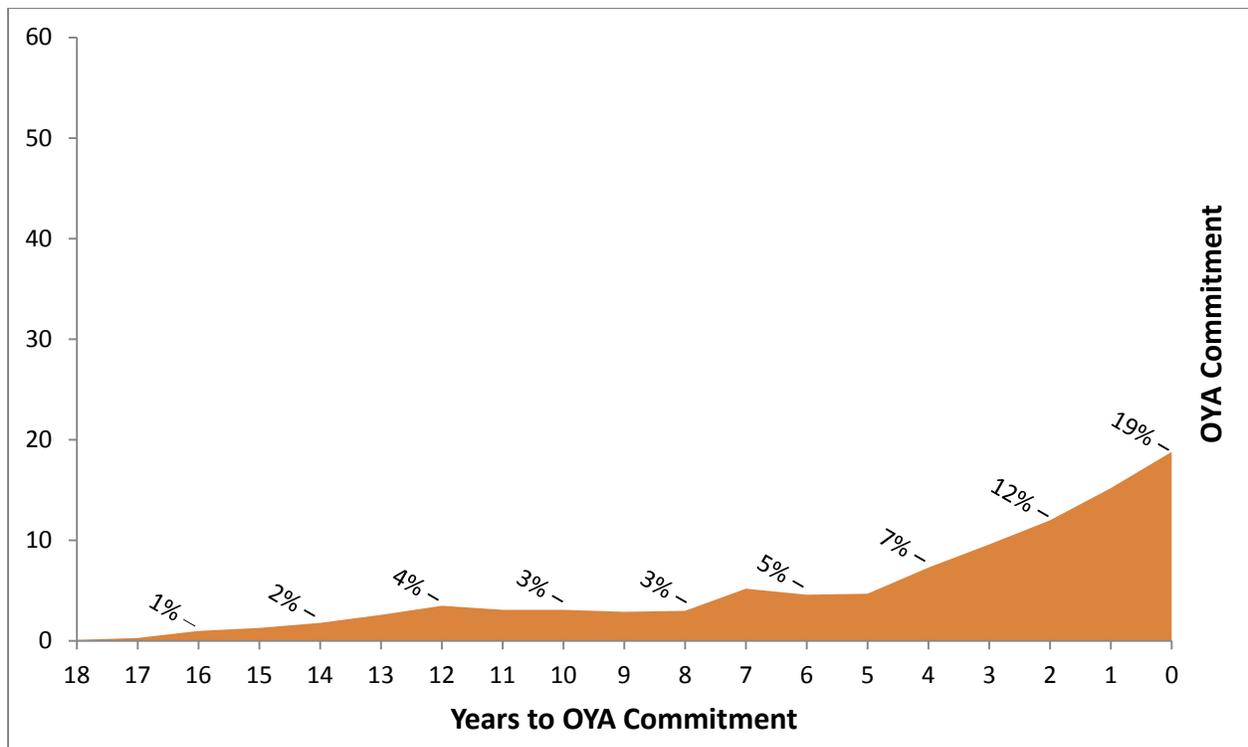


Figure 5. Timing of first contact with Foster Care relative to a youth's first commitment to OYA probation or close custody.

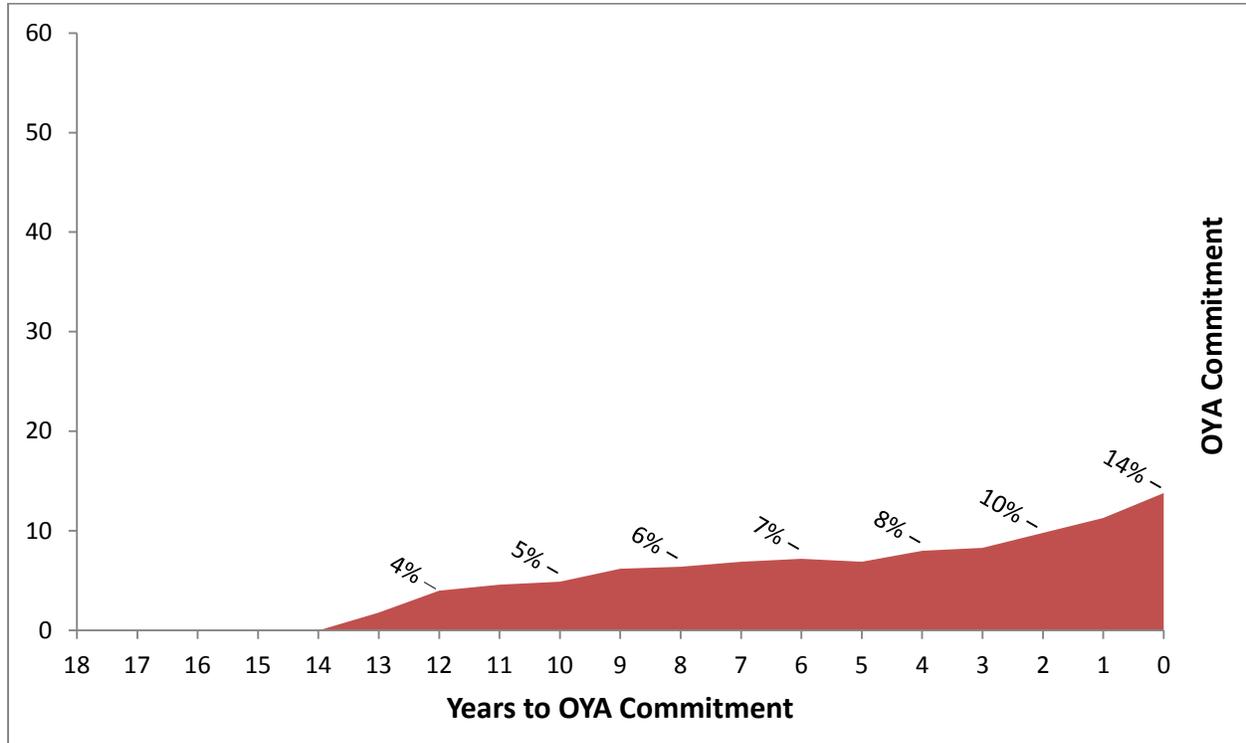


Figure 6. Timing of first Self-Sufficiency program access relative to a youth's first commitment to OYA probation or close custody.

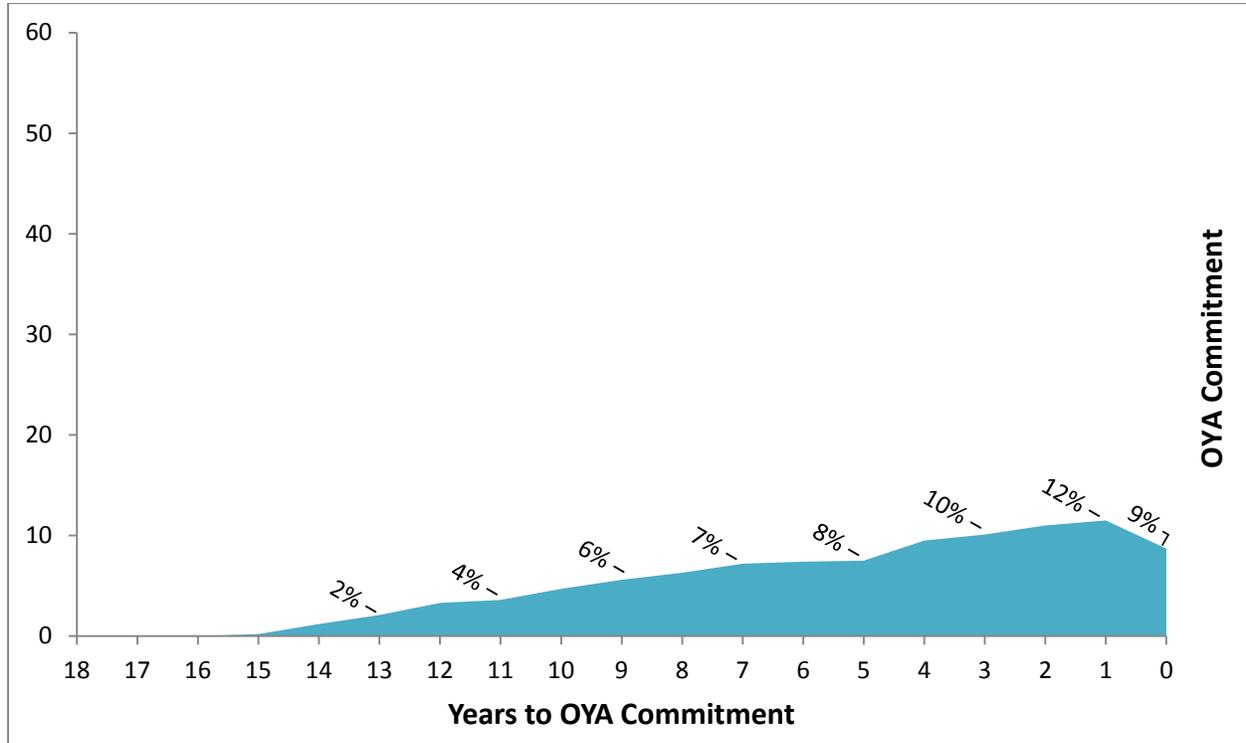


Figure 7. Timing of first contact with Child Protective Services relative to a youth's first commitment to OYA probation or close custody.