



# Connecticut Medicaid Emerging Adults

Child/Adolescent Quality, Access & Policy Committee

April 18, 2018

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**Connecticut BHP**  
Supporting Health and Recovery

# Agenda

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## 1. National Context

- a. Gap in understanding on behavioral health needs for emerging adults

## 2. Connecticut Context

- a. History of CT BHP's focus on Emerging Adults

## 3. Connecticut Medicaid Emerging Adults

- a. Longitudinal analysis

- Prevalence & service utilization 17<sup>th</sup> to 18<sup>th</sup> year
- Cluster Analysis

## 4. Summary & Next Steps

# National Context

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## ▪ **Background**

- Emerging adults (ages 15–26) face many challenges in navigating biological, emotional, interpersonal and psychological changes.

## ▪ **Behavioral Health Needs**

- Particularly challenging for emerging adults that struggle with behavioral health issues
- Run the risk of developing severe and persistent problems later in life if emerging adults in need of services do not receive them
- 50% of all lifetime cases of mental health diagnoses begin by age 14
- Only about 35% of emerging adults who are in need of behavioral health services actually receive treatment
- If emerging adults do receive services, drop in service utilization as they transition from the child and adolescent to the adult behavioral health system

## ▪ **Research & Intervention Gap**

- Strides have been made in understanding this vulnerable population
- Large gaps in our knowledge base on service utilization patterns

# Connecticut Context

## ▪ **DCF and DMHAS**

- Since 1997, addressing the needs of emerging adults involved with DCF that are “aging out”
- DMHAS’ Young Adult Services (YAS) program
- Connecticut identified as a leader within the U.S.

## ▪ **Connecticut Behavioral Health Partnership**

- Since 2007, monthly “CT BHP Young Adult Transition Report” produced by Beacon
- Report sent to DCF transition staff
  - (1) identifies DCF involved\* emerging adults
  - (2) ages 15–21
  - (3) who are receiving in-home community services and
  - (4) have a DCF priority diagnosis and/or a DCF secondary priority diagnosis.
- Also meet the necessary DMHAS referral criteria

## ▪ **Development of Emerging Adults Project for CT BHP**

“DCF-involvement” includes any youth who is involved with the Department of Children and Families through any of its mandates. This includes youth committed to DCF through child welfare or juvenile justice, and those dually committed. It also includes youth for whom the Department has no legal authority, but for whom DCF provides assistance through its Voluntary Services, Family with Service Needs and In-Home Child Welfare programs. In order to identify youth that are In-Home Child Welfare and Out-of-Home Committed, Beacon used a combination of the D and I/O identifier as requested by State partners.

# Methods



# Purpose & Scope

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## ▪ Purpose

- To improve understanding as to the characteristics and service utilization patterns of emerging adults
- Inform intervention development

## ▪ Scope

- What are the member characteristics of emerging adults at 17?
- What are the service utilization patterns?
- Do specific clusters of emerging adults emerge at 17 based upon their characteristics and service utilization?

# Methods

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- **Data source**

- Claims, authorization, and episode data

- **Sample**

- Medicaid youth turned 18 between 1/1/13 – 12/31/14
- Both DCF & non-DCF involved emerging adults

- **Measurement Period**

- 12 months after turn 17
- 12 months after turn 18

- **Exclusions**

- Dually enrolled; limited benefit groups; 0 days eligibility for both their 17 and 18<sup>th</sup> year

# Methods

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## ▪ **Descriptive Statistics & Significance Testing**

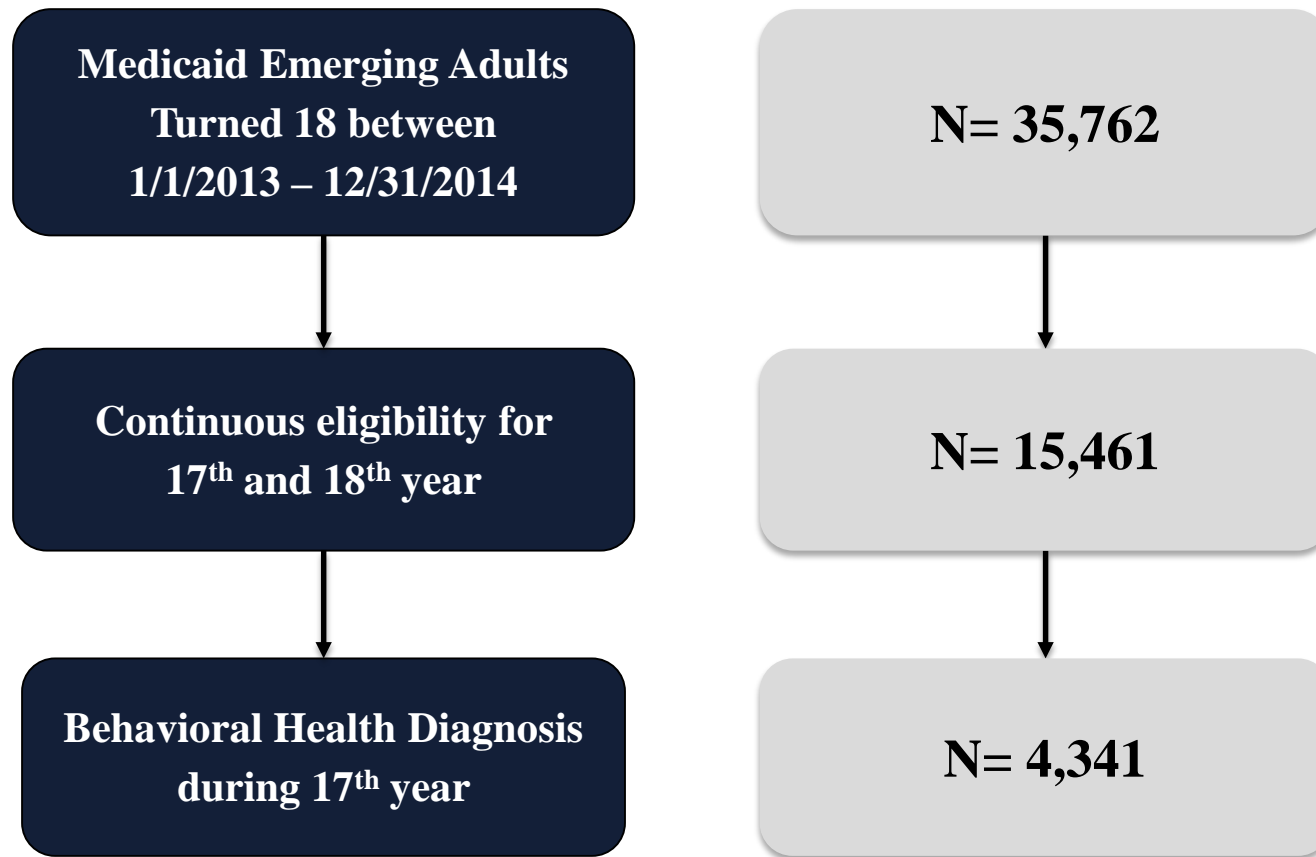
- Demographics
- Diagnoses
- DCF involvement
- Benefit package
- Service utilization rates

## ▪ **Cluster Analysis**

1. Select input variables
2. Select clustering procedure
3. Select clustering measure
4. Select clustering algorithm
5. Run descriptive statistics on identified clusters



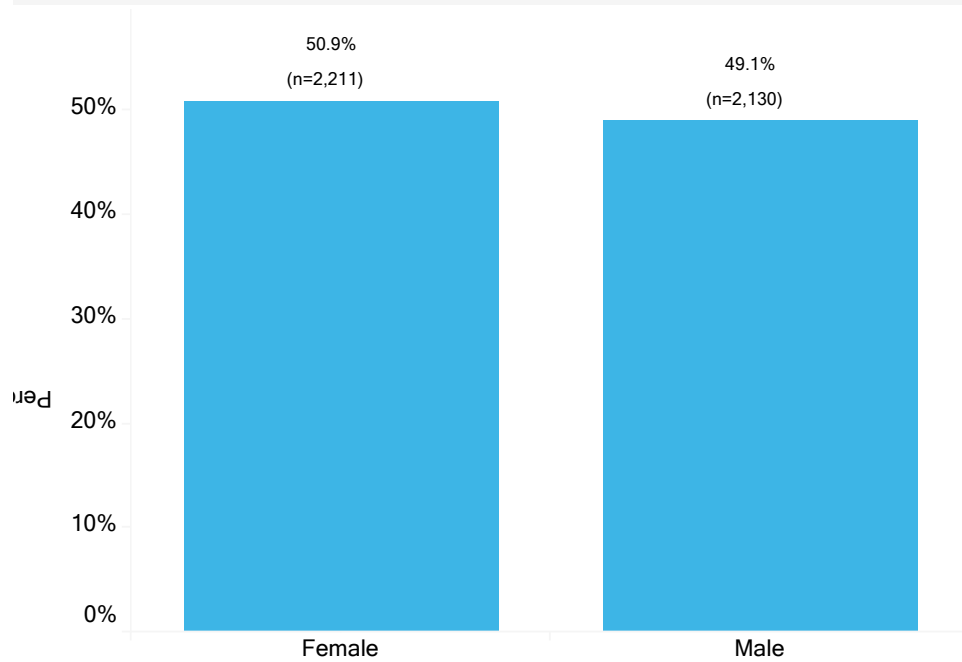
# Methods



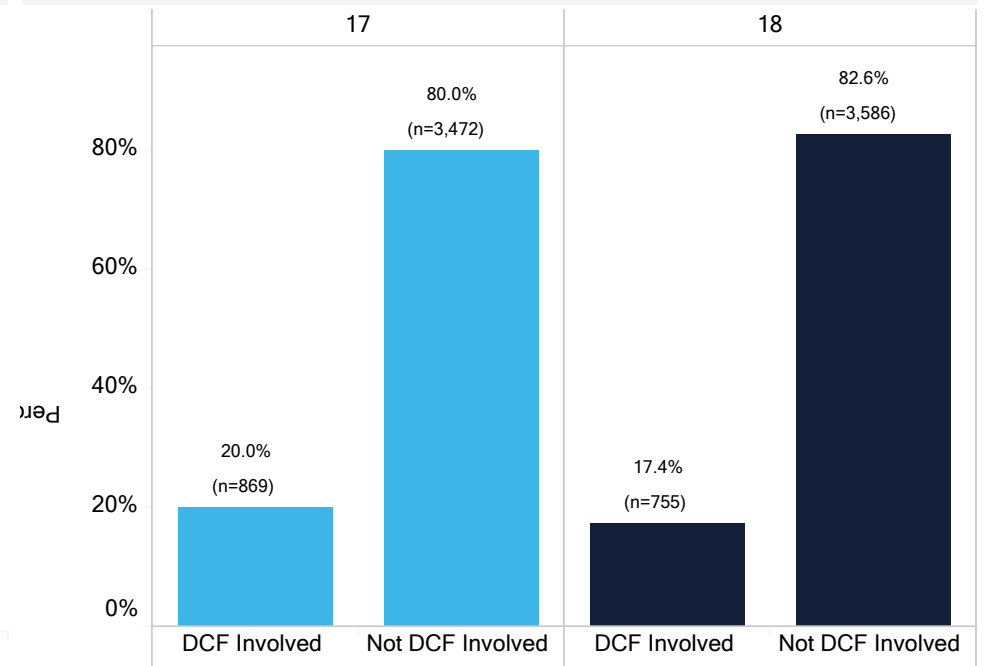
# Service Utilization Results



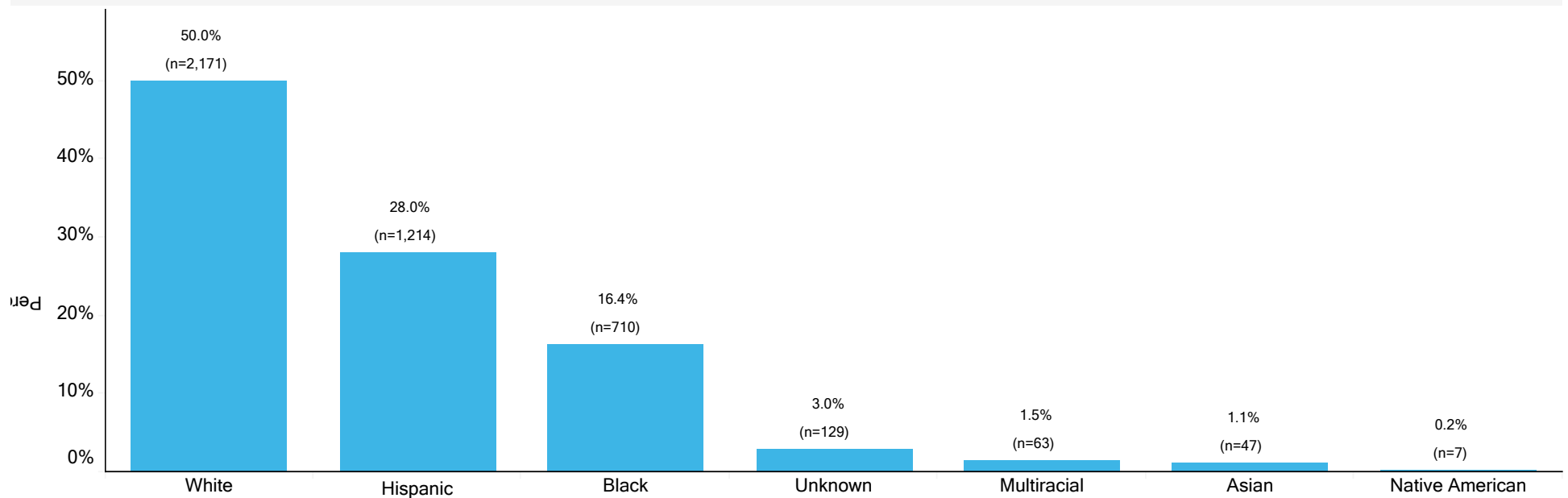
### Gender at Age 17



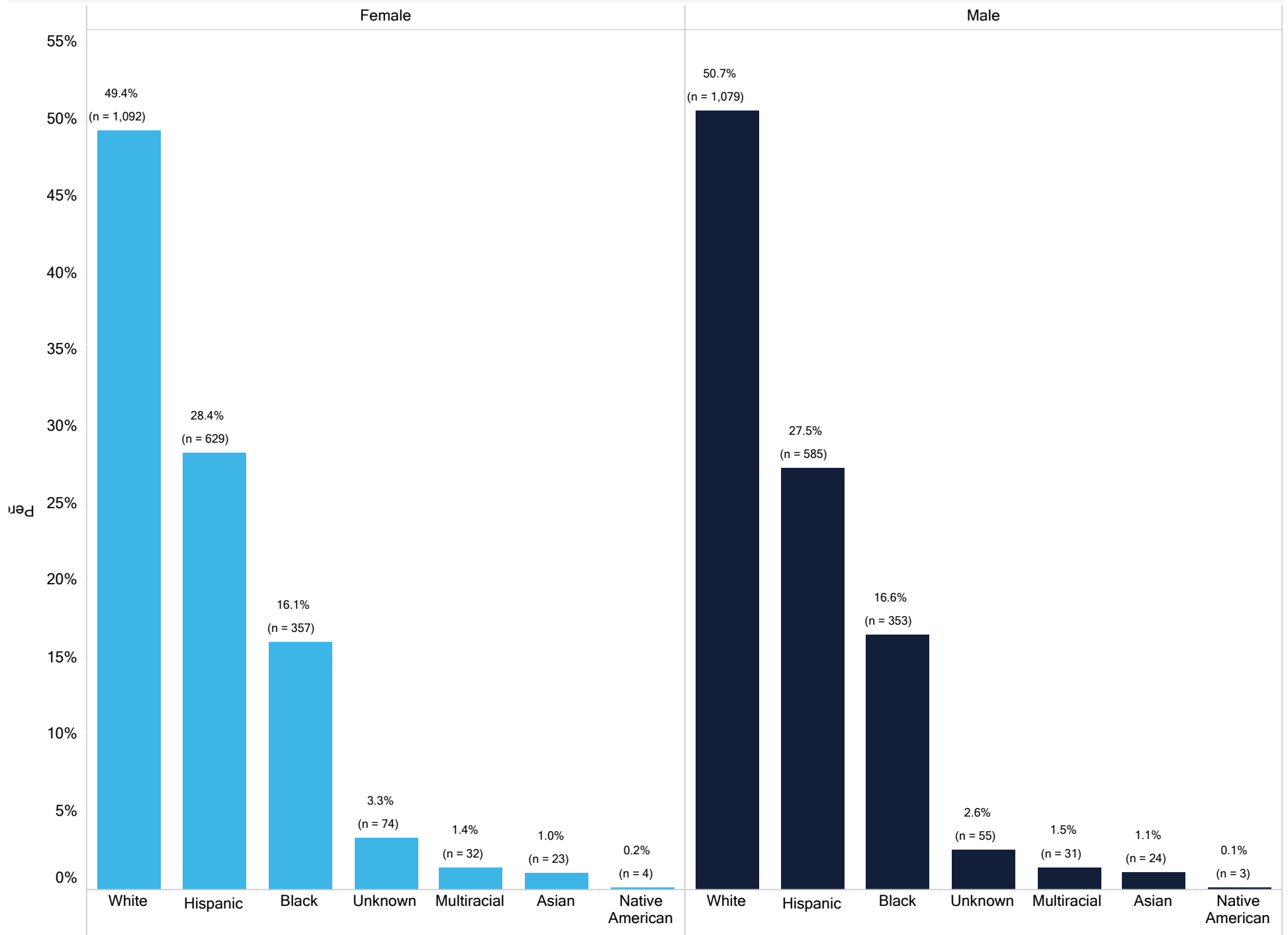
### DCF Status at Age 17 & 18



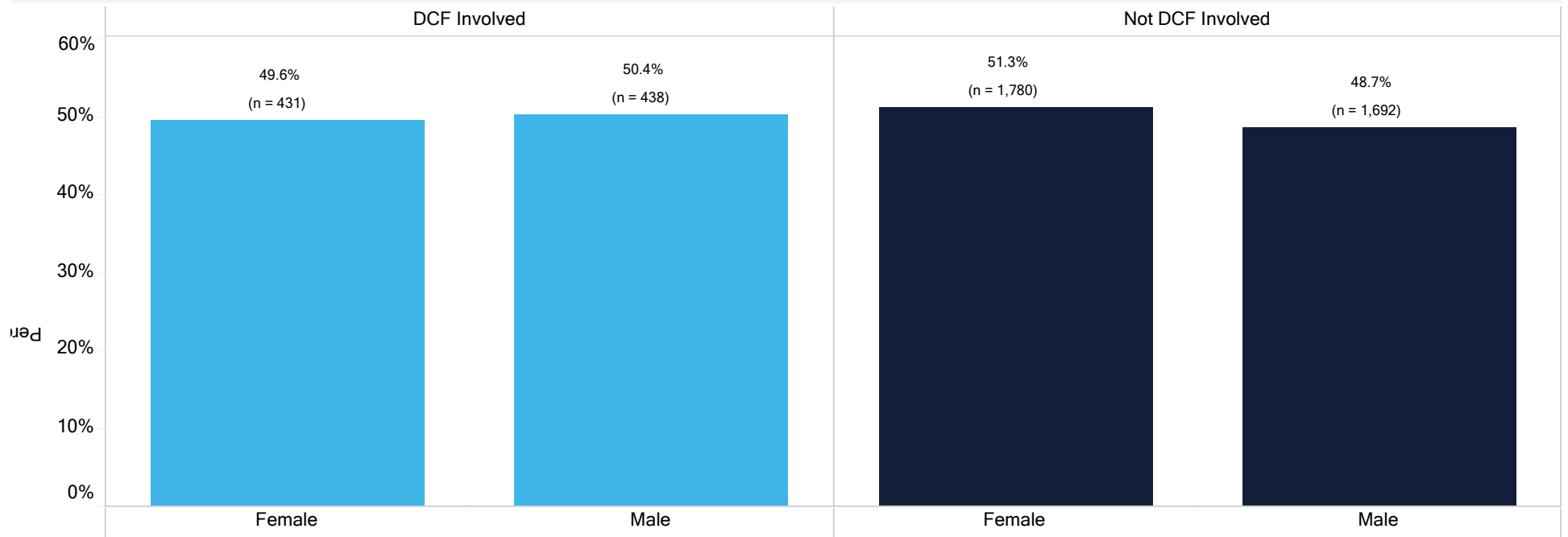
### Race/Ethnicity at Age 17



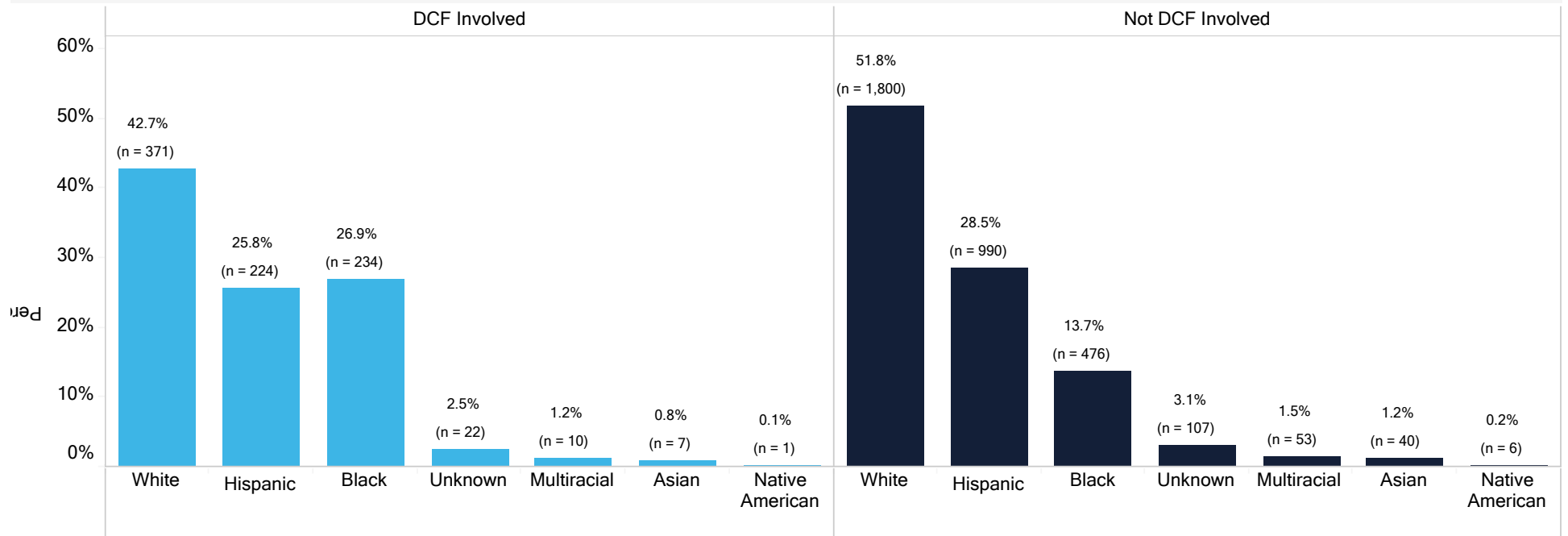
## Percent of Youth by Gender and Race at Age 17



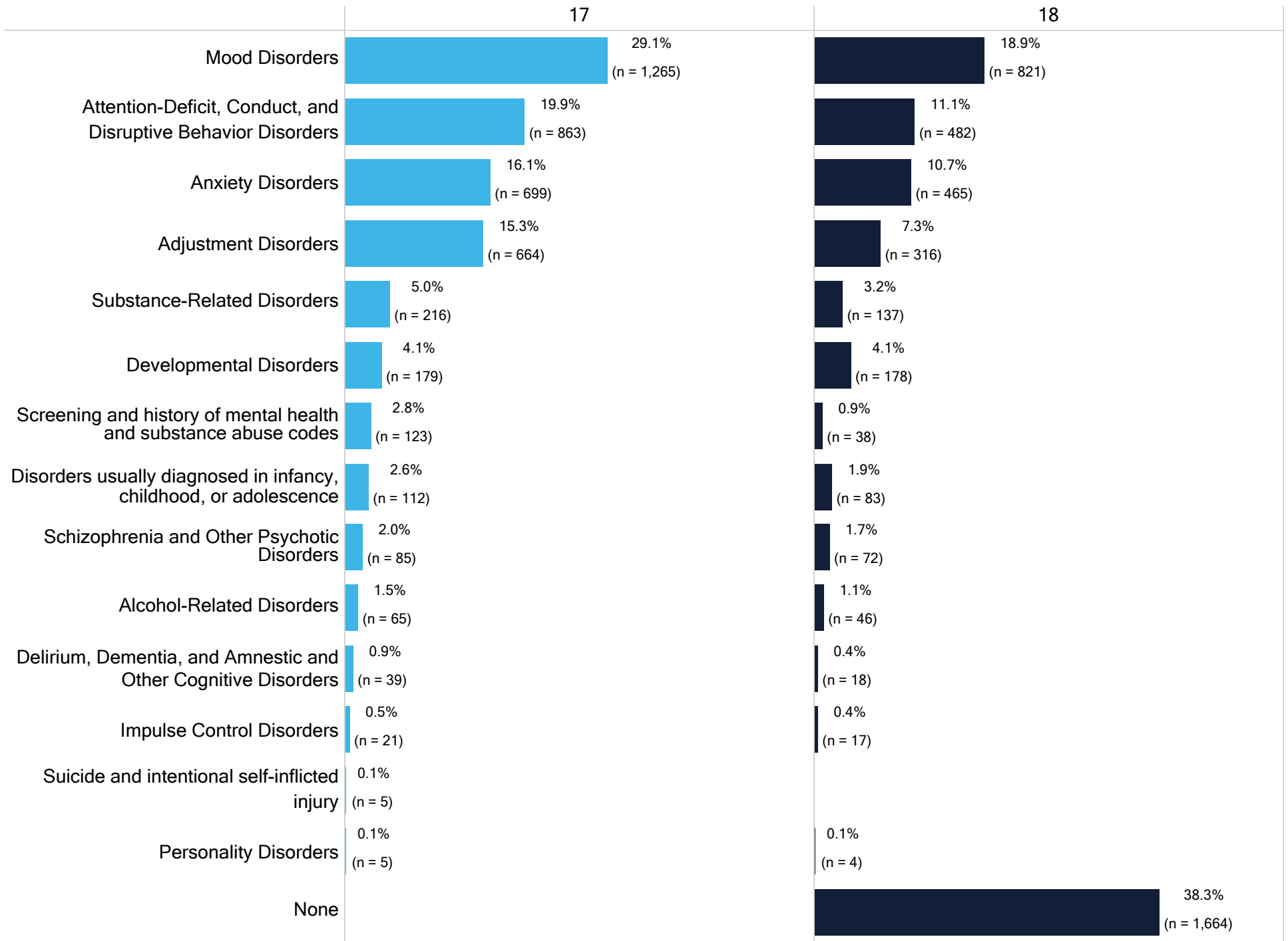
## DCF Status and Gender at Age 17



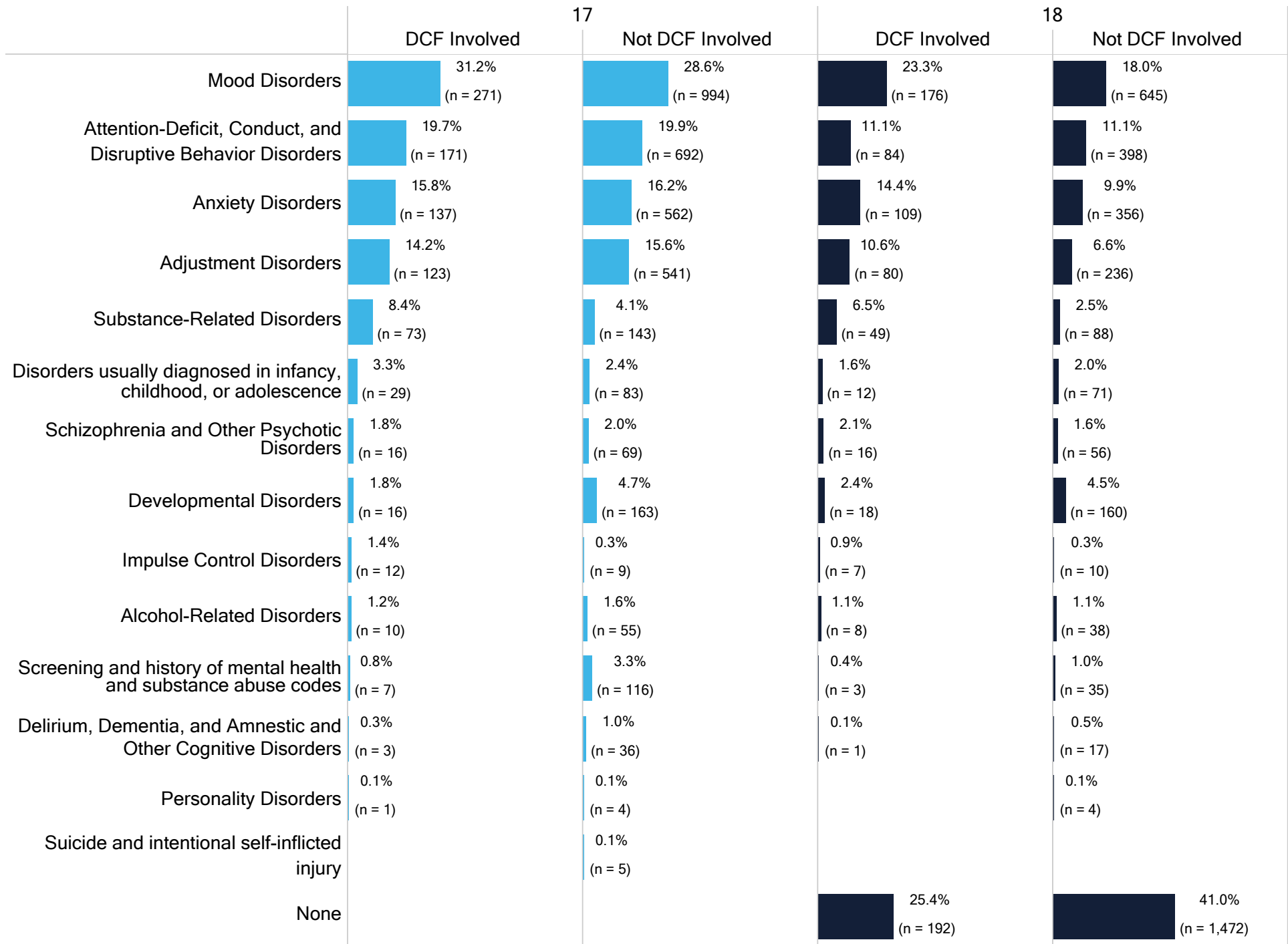
## DCF Status and Race and Ethnicity at Age 17



## Behavioral Health Diagnoses Associated with Highest Cost by Age



## Behavioral Health Diagnoses Associated with Highest Cost by DCF Status and Age

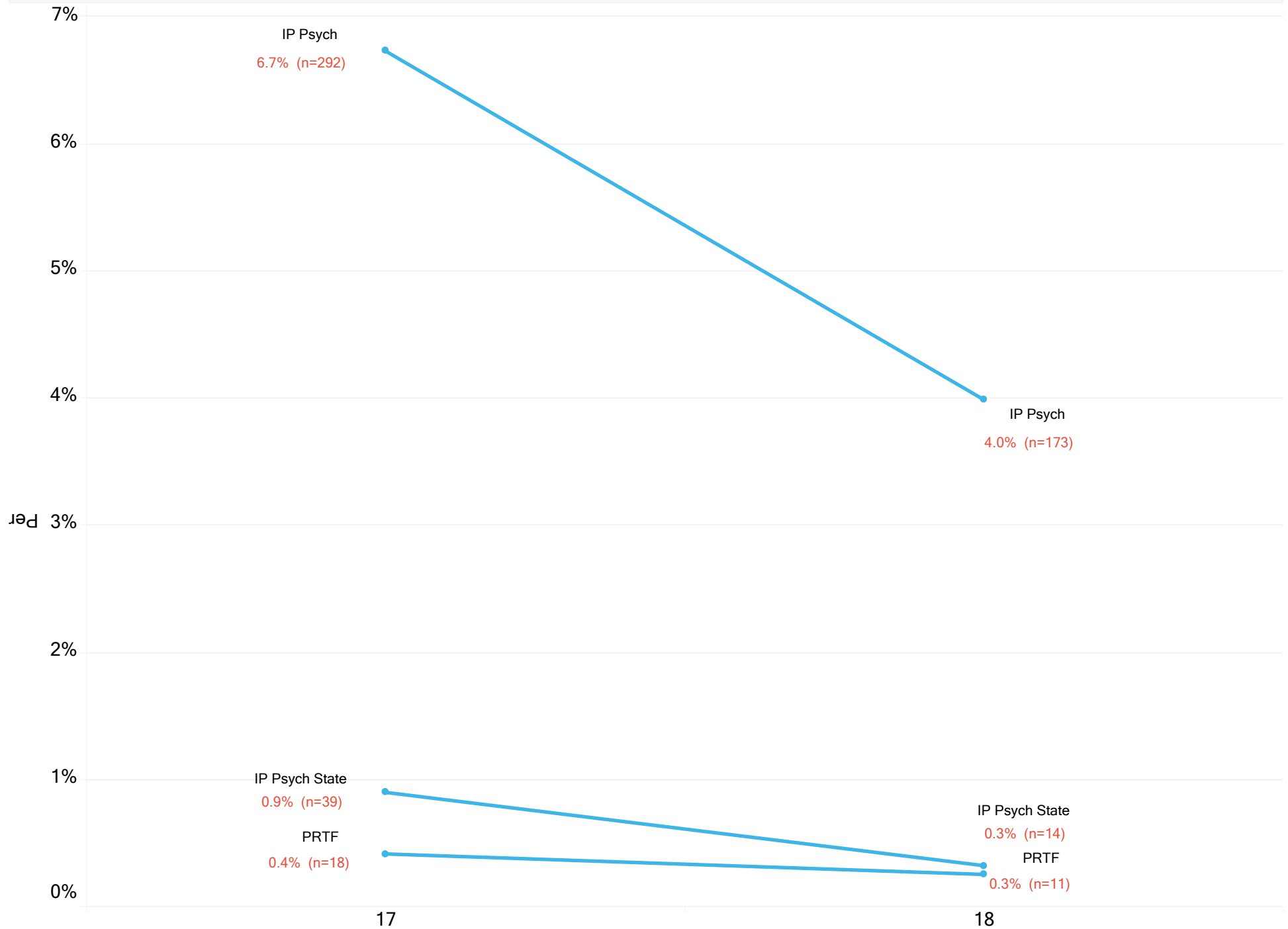


# Service Utilization Results

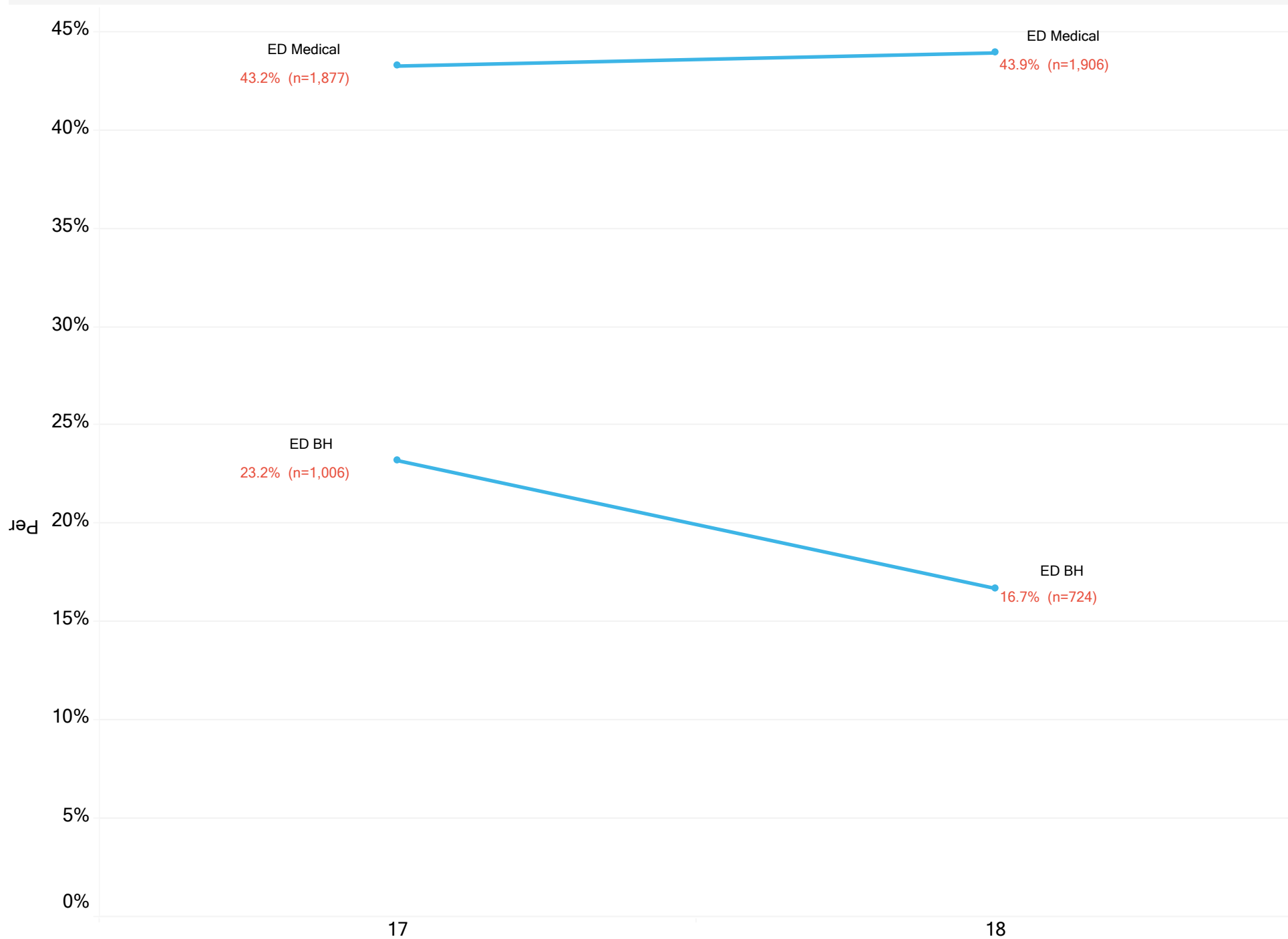
Level of Care	Service Type
1. Inpatient	<ol style="list-style-type: none"> <li>1. Inpatient Psychiatric Hospital</li> <li>2. Inpatient Psychiatric Hospital–State</li> <li>3. Psychiatric Residential Treatment Facility (PRTF)</li> </ol>
2. Emergency Department	<ol style="list-style-type: none"> <li>4. Emergency Department Visits–Medical</li> <li>5. Emergency Department Visits–Behavioral Health</li> </ol>
3. Congregate Care	<ol style="list-style-type: none"> <li>6. Residential Treatment Center (RTC)</li> <li>7. Group Home</li> </ol>
4. Intensive Outpatient	<ol style="list-style-type: none"> <li>8. Intensive Outpatient (IOP)</li> <li>9. Partial Hospitalization Program (PHP)</li> </ol>
5. Home-Based	<ol style="list-style-type: none"> <li>10. Home-based Services</li> </ol>
6. Routine Behavioral Health	<ol style="list-style-type: none"> <li>11. General Behavioral Health</li> <li>12. Individual Therapy</li> <li>13. Family Therapy</li> <li>14. Group Therapy</li> <li>15. Psychiatric Testing</li> <li>16. Other Behavioral Health – Medication Management</li> </ol>



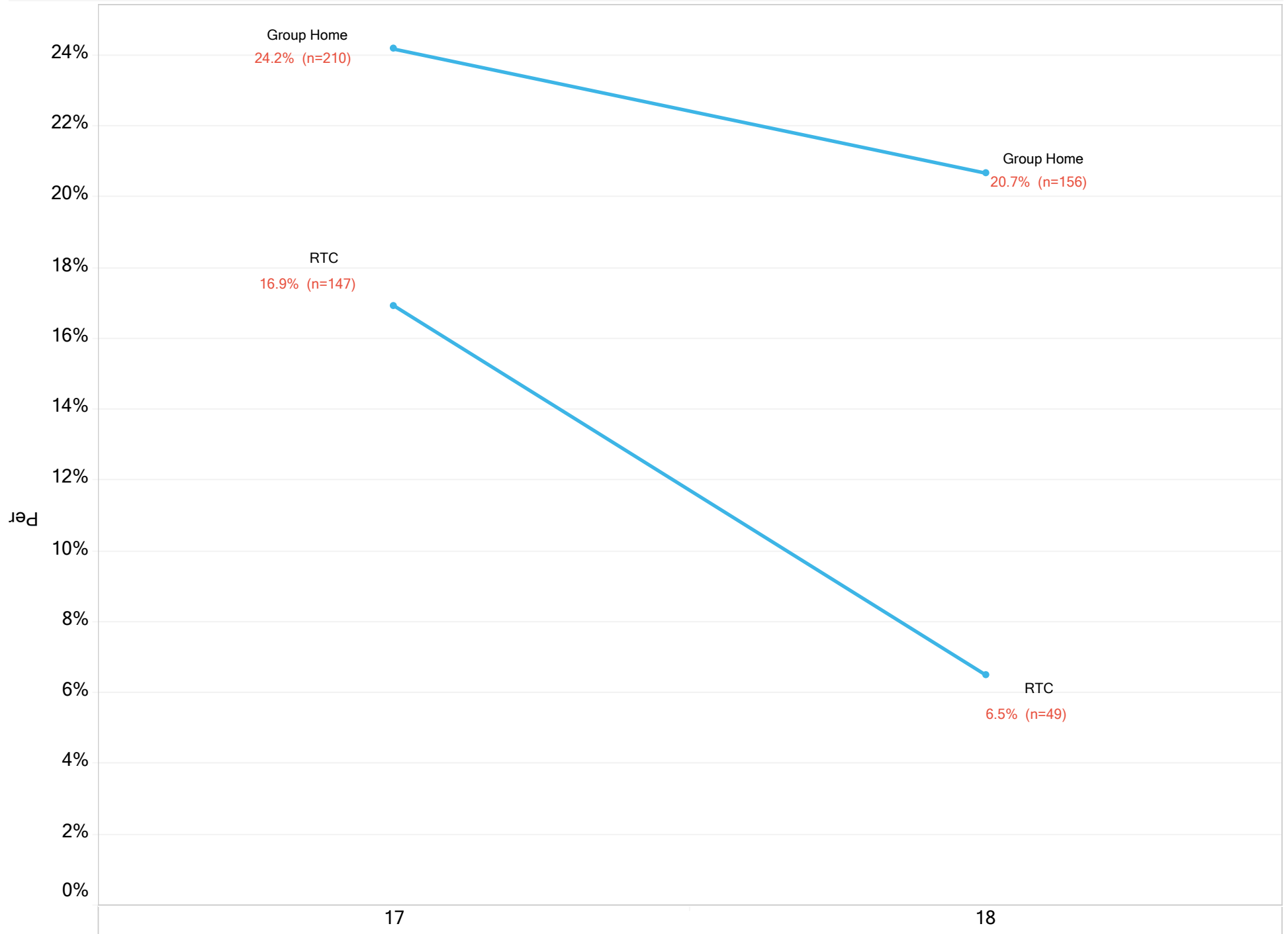
## Percent of Youth Utilizing Inpatient Psychiatric Services by Age



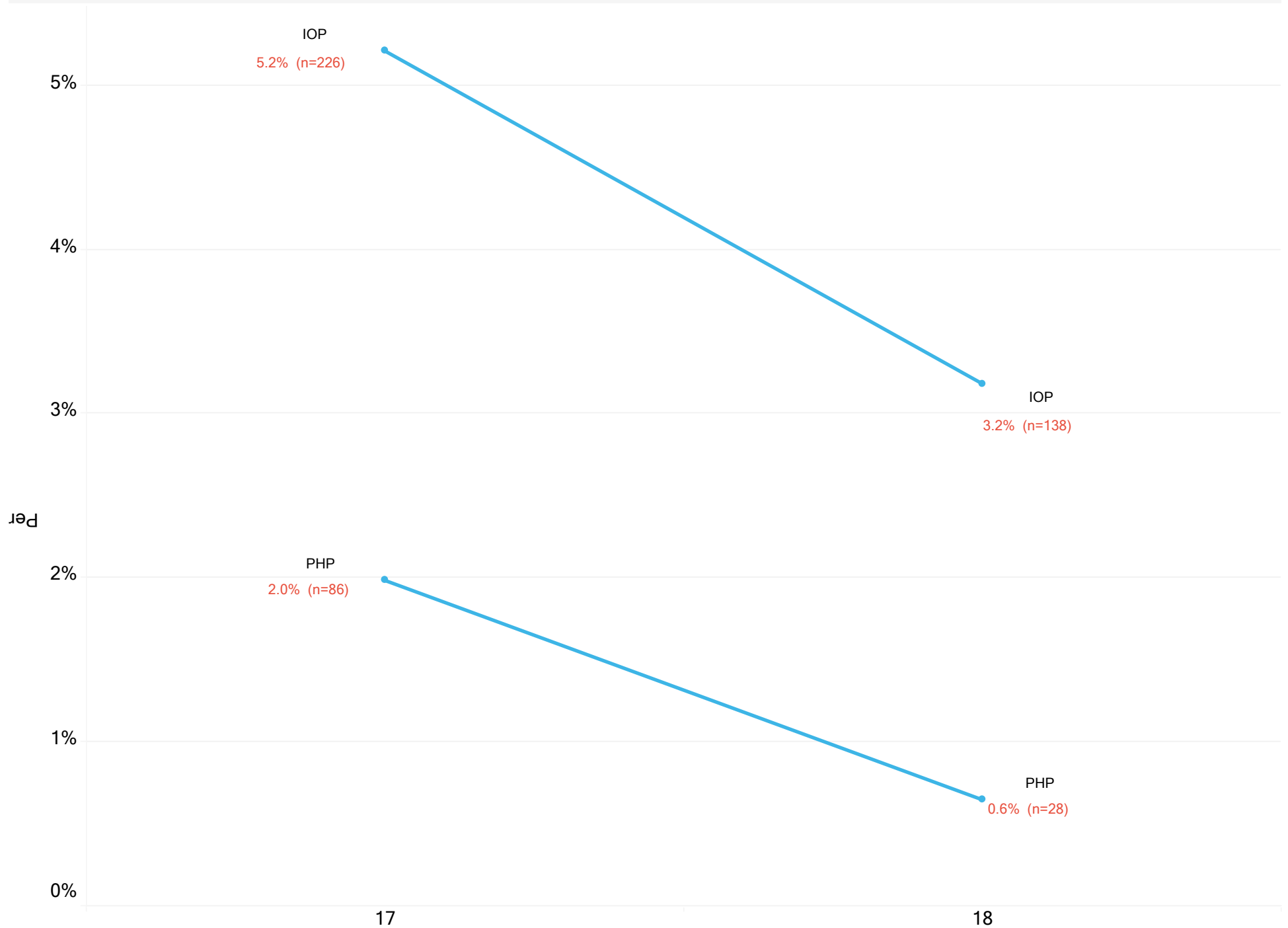
## Percent of Youth Utilizing Emergency Department Services by Age



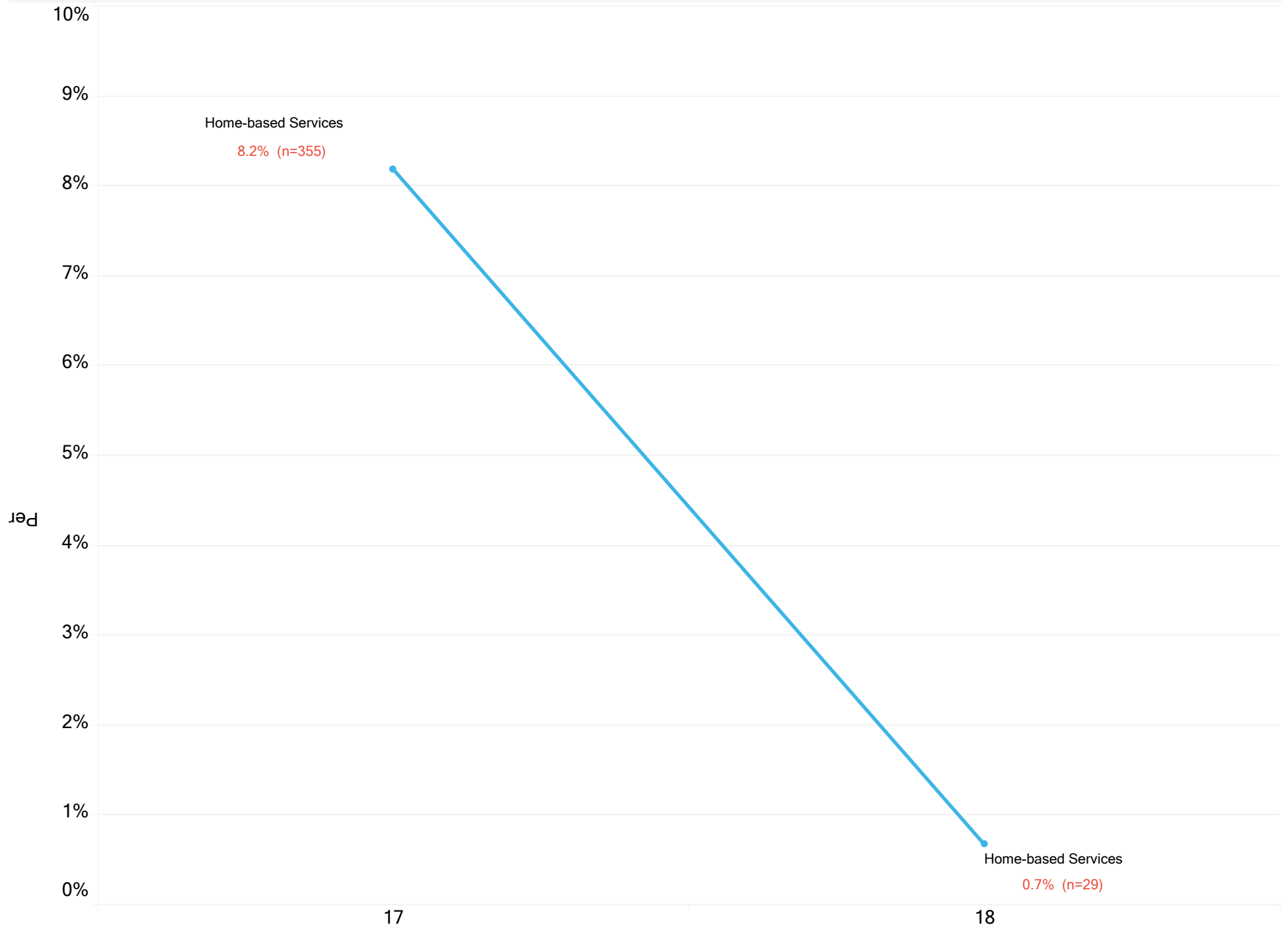
## Percent of Youth Utilizing Congregate Care Services by Age



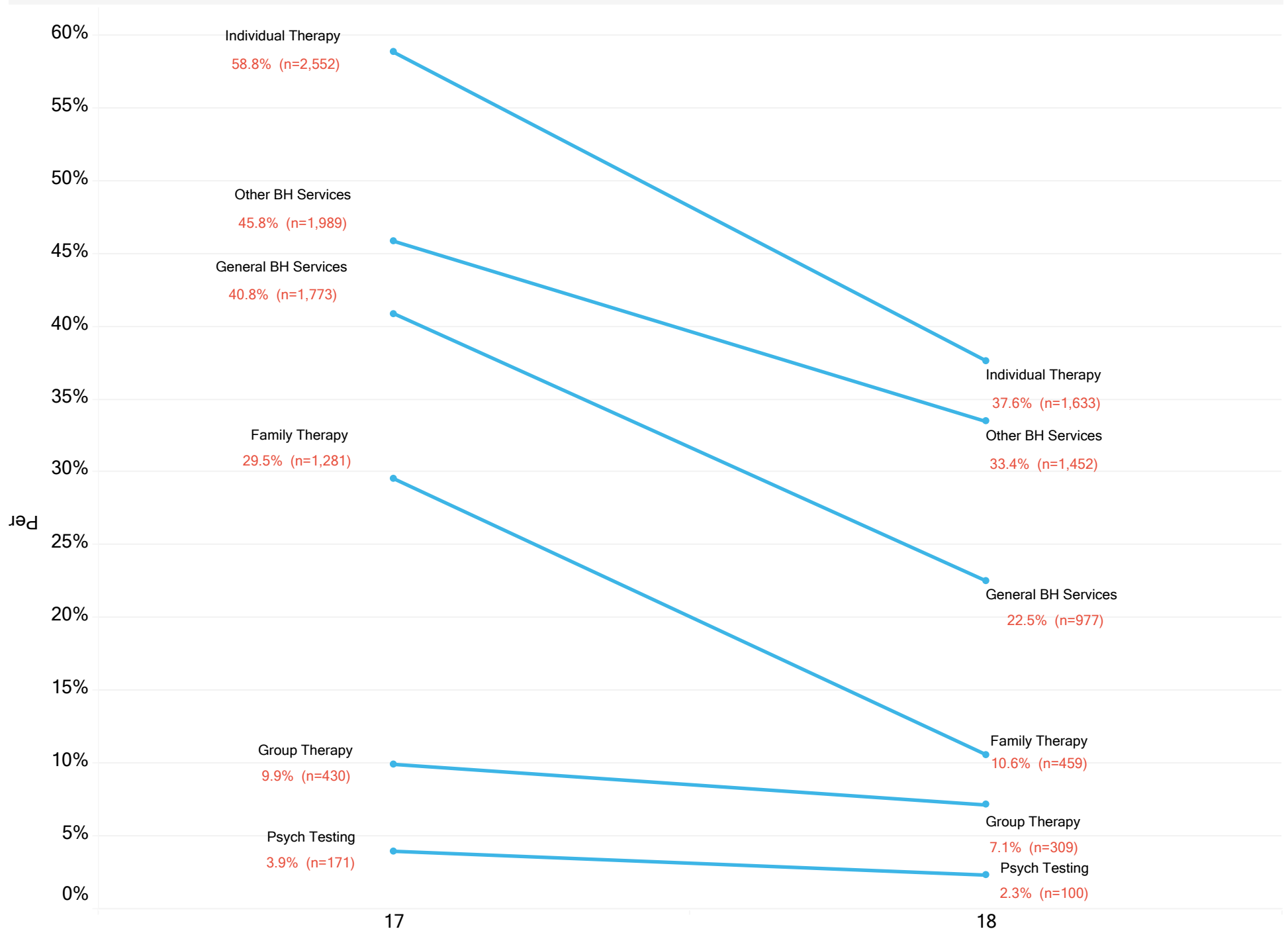
## Percent of Youth Utilizing Intensive Outpatient Services Services by Age

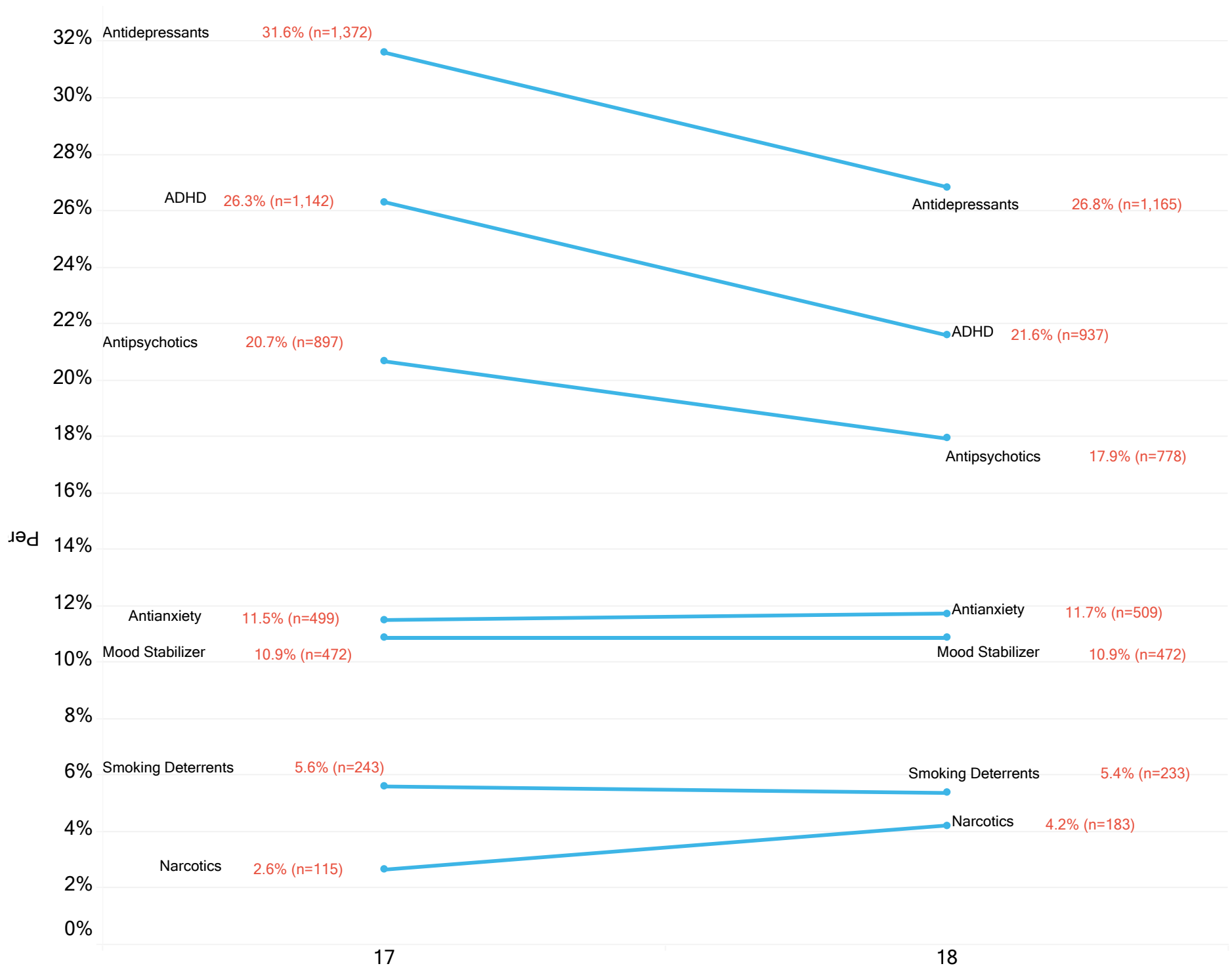


## Percent of Youth Utilizing Hom-Based Services by Age



## Percent of Youth Utilizing Routine Behavioral Health Services by Age



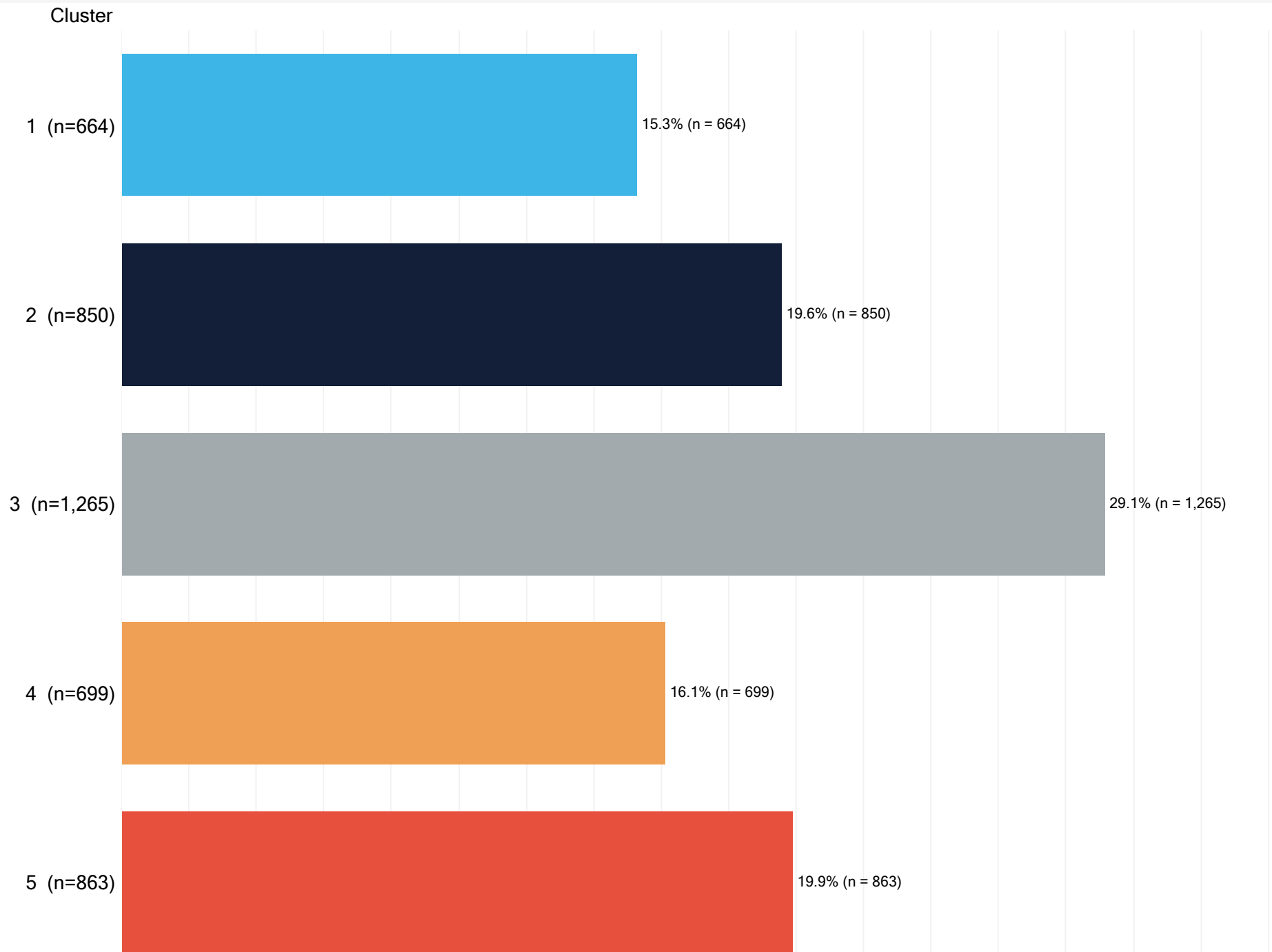


# Cluster Analysis Results

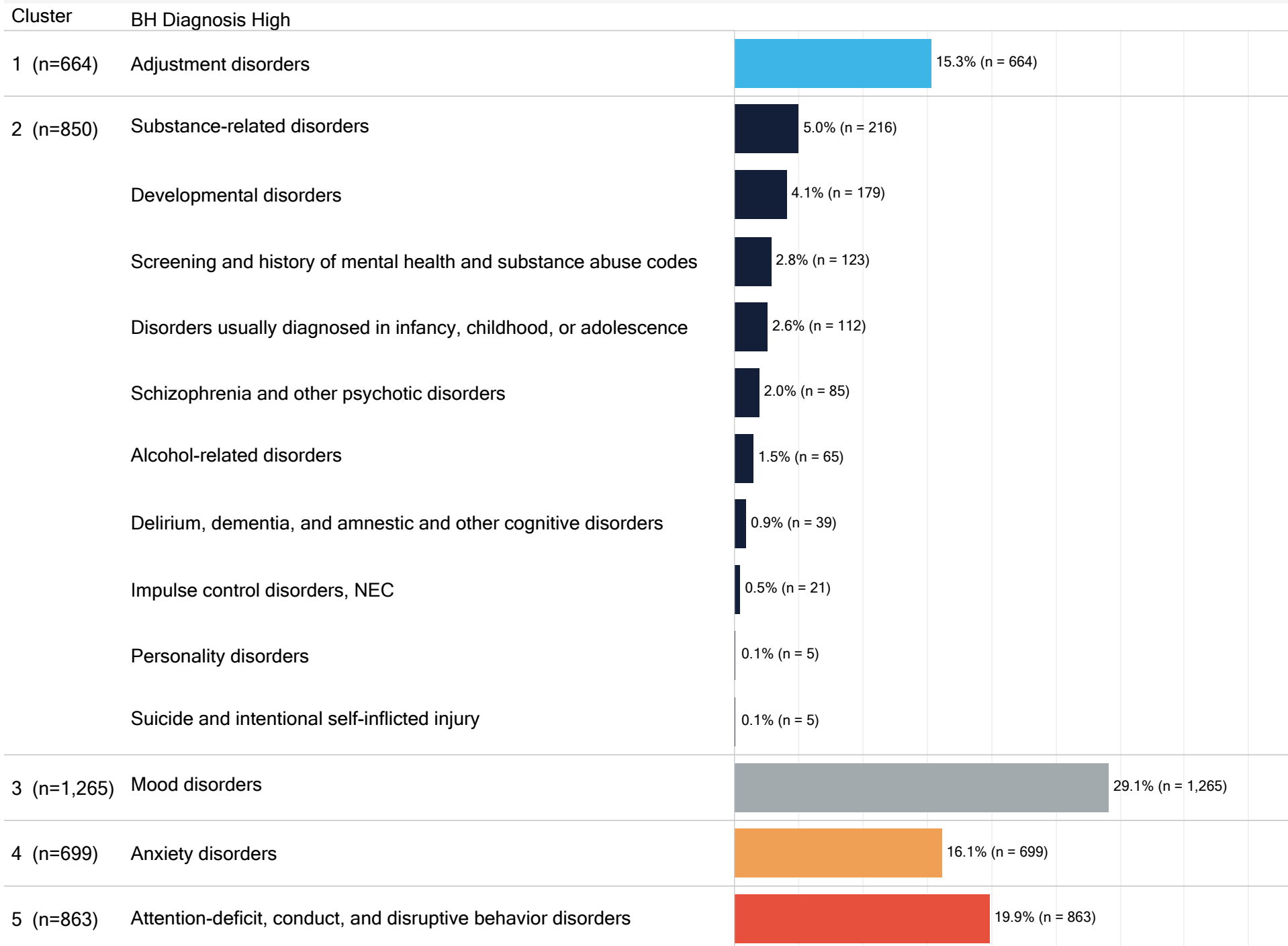




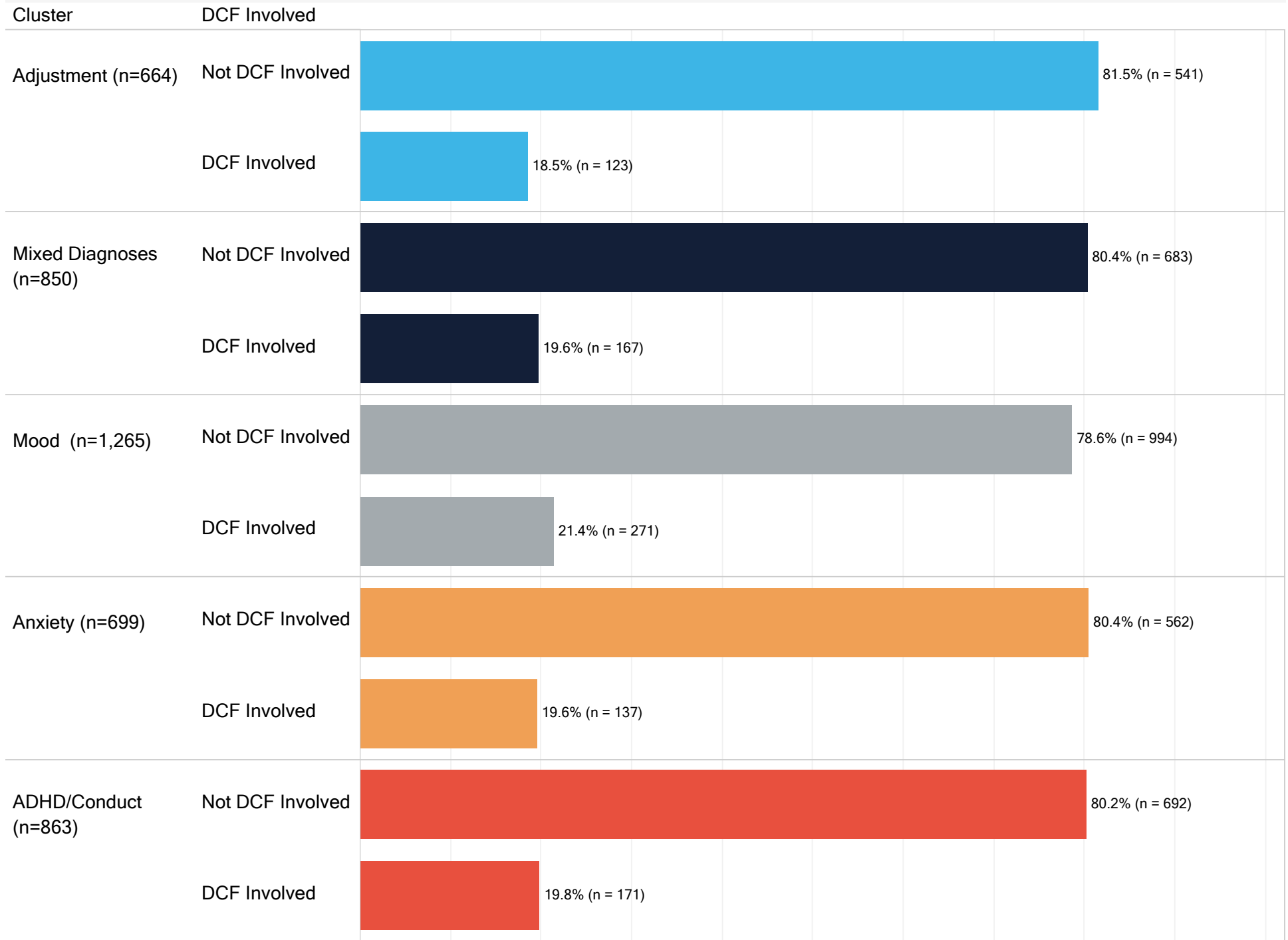
## Cluster Assignment at Age 17



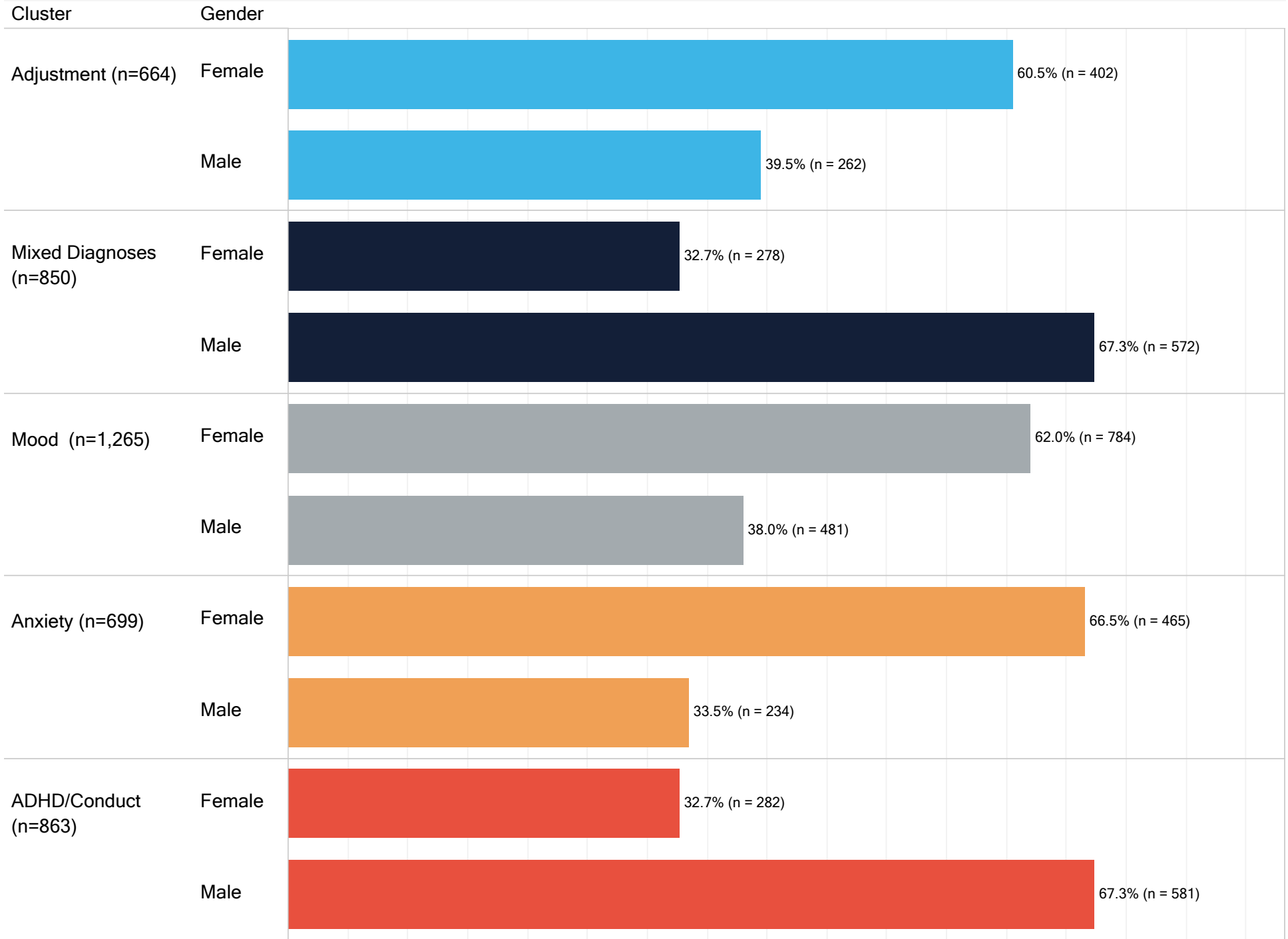
## Cluster Assignment and Behavioral Health Diagnosis Associated with Highest Cost at Age 17



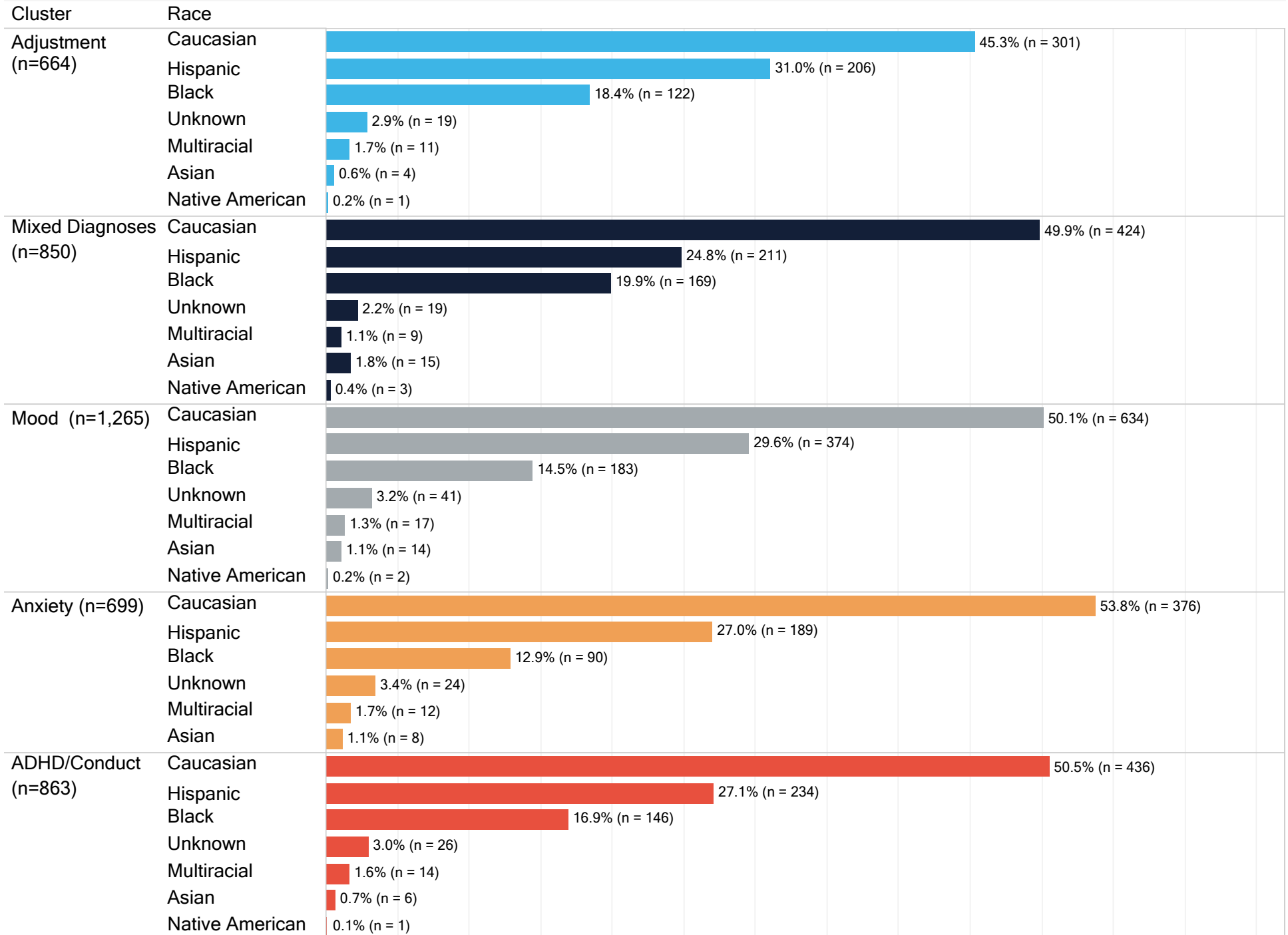
## Cluster Assignment and DCF Involvement at Age 17



## Cluster Assignment and Gender at Age 17



## Cluster Assignment and Race and Ethnicity at Age 17



# Results

	Cluster Assignment					$X^2$	<i>df</i>	<i>p</i>
	1 (n=664)	2 (n=850)	3 (n=1,265)	4 (n=699)	5 (n=863)			
Inpatient	2.0% (n=13)	5.6% (n=48)	15.7% (n=199)	2.6% (n=18)	1.6% (n=14)	244.2	4	<.01
Inpatient - State	0.2% (n=1)	0.9% (n=8)	1.7% (n=21)	1.0% (n=7)	0.2% (n=2)	16.8	4	<.01
PRTF	0.2% (n=1)	0.5% (n=4)	0.8% (n=10)	0.4% (n=3)	0.0% (n=0)	9.1	4	0.06
ED BH	12.3% (n=82)	26.9% (n=229)	33.0% (n=418)	20.0% (n=140)	15.9% (n=137)	149.4	4	<.01
IOP	1.5% (n=10)	6.1% (n=52)	9.9% (n=125)	2.1% (n=15)	2.8% (n=24)	99.4	4	<.01
PHP	0.3% (n=2)	1.1% (n=9)	4.8% (n=61)	1.1% (n=8)	0.7% (n=6)	75.8	4	<.01
IICAPS	0.5% (n=3)	1.8% (n=15)	5.9% (n=75)	1.7% (n=12)	4.8% (n=41)	60.6	4	<.01
Other Home-based	3.9% (n=26)	4.7% (n=40)	4.3% (n=54)	2.0% (n=14)	8.7% (n=75)	42.4	4	<.01
General BH	49.4% (n=328)	26.9% (n=229)	50.8% (n=642)	42.8% (n=299)	31.9% (n=275)	169.4	4	<.01
Individual Therapy	74.4% (n=494)	32.4% (n=275)	72.0% (n=911)	63.4% (n=443)	49.7% (n=429)	438.7	4	<.01
Family Therapy	30.7% (n=204)	13.2% (n=112)	38.7% (n=489)	33.6% (n=235)	27.9% (n=241)	167.1	4	<.01
Group Therapy	9.5% (n=63)	10.7% (n=91)	10.7% (n=135)	7.4% (n=52)	10.3% (n=89)	6.5	4	0.17
Psych Testing	3.5% (n=23)	6.0% (n=51)	2.8% (n=35)	3.0% (n=21)	4.8% (n=41)	17.7	4	<.01
Other BH	26.8% (n=178)	28.6% (n=243)	51.9% (n=657)	49.2% (n=344)	65.7% (n=567)	358.1	4	<.01

*Note.* Inpatient=Inpatient Psychiatric Hospitalization; Inpatient-State=Inpatient Psychiatric Hospitalization State Operated Facility; PRTF=Psychiatric Residential Treatment Facility; ED BH = Emergency Department - Behavioral Health; IOP = Intensive Outpatient Program; PHP = Partial Hospitalization Program; IICAPS = Intensive In-home Child and Adolescent Psychiatric Services; General BH = General Behavioral Health Services. Cluster 1=Adjustment Disorder; Cluster 2=Various Diagnoses; Cluster 3=Mood Disorders; Cluster 4=Anxiety Disorders; Cluster 5=ADHD/Conduct/Disruptive Behavior. Percentages that are highlighted in blue indicate the highest percentage for that particular service across clusters. Percentages that are highlighted in orange indicate the second highest percentage for that service across clusters

# Results

Service Category	Service Type	17 <i>n</i> -size	18	Percent Change
Inpatient	Inpatient Psychiatric Hospital	292	173	-41%
	Inpatient Psychiatric Hospital - State	39	14	-64%
	PRTF	18	11	-39%
Emergency Department	ED BH	1006	724	-28%
Congregate Care	Group Home	212	158	-25%
	RTC	150	53	-65%
Intensive Outpatient	IOP	226	138	-39%
	PHP	86	28	-67%
Home-based	Home-based Services	355	29	-92%
Routine Behavioral Health	Individual Therapy	2552	1633	-36%
	Group Therapy	430	309	-28%
	Family Therapy	1281	459	-64%
	Other BH Services	1989	1452	-27%
	Psych Testing	171	100	-42%
	General BH Services	1773	977	-45%

Note. Given certain services have age restrictions to be admitted into a program, these programs are expected to decline between the 17<sup>th</sup> and 18<sup>th</sup> year, are highlighted in grey, and should be interpreted with caution.

# Conclusion





# Conclusion

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## ▪ Demographics

- Mood, ADHD, conduct, disruptive behavior, anxiety, and adjustment disorders were the top four diagnostic categories
- Over 38% of the sample had no behavioral health diagnosis at 18.
- Youth that were DCF involved at 18 had a lower percent with no behavioral health diagnosis (25%) compared to non-DCF involved youth (41%) at age 18
- Gender differences by diagnostic categories
- 35% of White youth at 18 had no diagnosis compared to 41% of Hispanic, 43% of Black, and 46% of Multiracial youth

# Conclusion

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## ▪ **Service Utilization**

- Statistically significant decline in the proportion of youth utilizing services from 17 to 18
- Average percent change across services was a 44% decline

## ▪ **Cluster Analysis**

- Five distinct clusters, which created meaningful structure to the data.
- Behavioral health diagnoses and selected services were entered into the model
- Significant differences across clusters by gender, race, and behavioral health diagnosis.

## ▪ **Limitations**

- Restrictions on claims and authorizations
- RTC and GH removed from cluster analysis
- Services outside scope of claims
- Broader healthcare and fiscal climate - changes over time

# Conclusion

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## ▪ Future Directions

- Conduct a cross-sectional study to gain a broader snapshot of transition-age service utilization
- Develop transitional assistance program that supports emerging adults with behavioral health needs accessing services; improve connection to care
- Utilize predictive modeling to better understand behavioral health needs and risk and protective factors

# Questions?

