



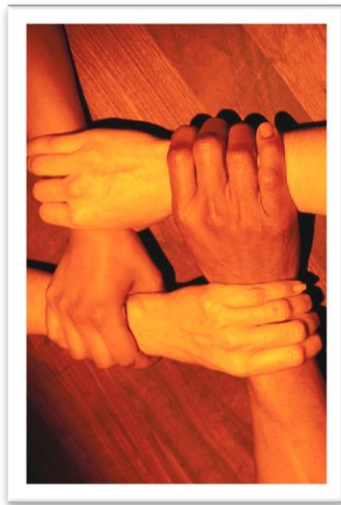
# Pediatric Emergency Department Utilization

Connecticut Behavioral Health Partnership



# Acknowledgements

This data presentation was possible due to the collaboration of the CT Behavioral Health Partnership.



**DSS**

**VO-CTBHP**



**DCF**

**DMHAS**

# National Context



- Across the country, approximately 25% of all visits to the ED are by individuals under 18 (AHRQ , 2005)
- National studies have documented a trend of increasing Psychiatric ED visits by children and youth (AAP, 2011)
- Children on Medicaid or uninsured account for a disproportionate share of ED visits
- Young children 0-4 are the most frequent visitors to the ED, usually for medical issues
- Children with psychiatric related ED visits were older than those that visit for medical reasons
- Mood disorders were the 6<sup>th</sup> most common reason for an ED visit that resulted in hospitalization (AHRQ, 2005)

# Basic Methodology

**Study Period:  
CY 2011 & CY 2012**

**Data Used:**

- DSS eligibility files
- Medicaid claims
- ValueOptions authorization data
- DCF data



**Analyses:**

- Descriptive statistics
- Bivariate analyses
- Multiple regression analyses

Note: Some data analyses use episode counts and so individuals may be counted more than once, and other analyses use unique member counts because a member can only be in one category.

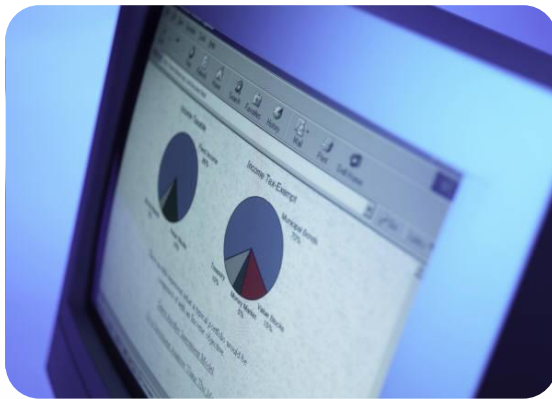


# Cohort Methodology

## Youth Population Analyses = All eligible Medicaid youth ages 3-17.

### Exclusions:

- Dually eligible at any point
- Had D05 or Title XIX at any point
- Youth ages < 3



## BH Cohort Definition:

- Youth who used behavioral health services during the study period.

## BH ED Cohort Definition:

- Primary BH diagnosis on ED claim
- Primary medical with secondary BH diagnosis on ED claim.

# Basic Questions

1:

What are the characteristics of youth who utilize the ED?

2:

Do demographic factors impact BH ED utilization?

3:

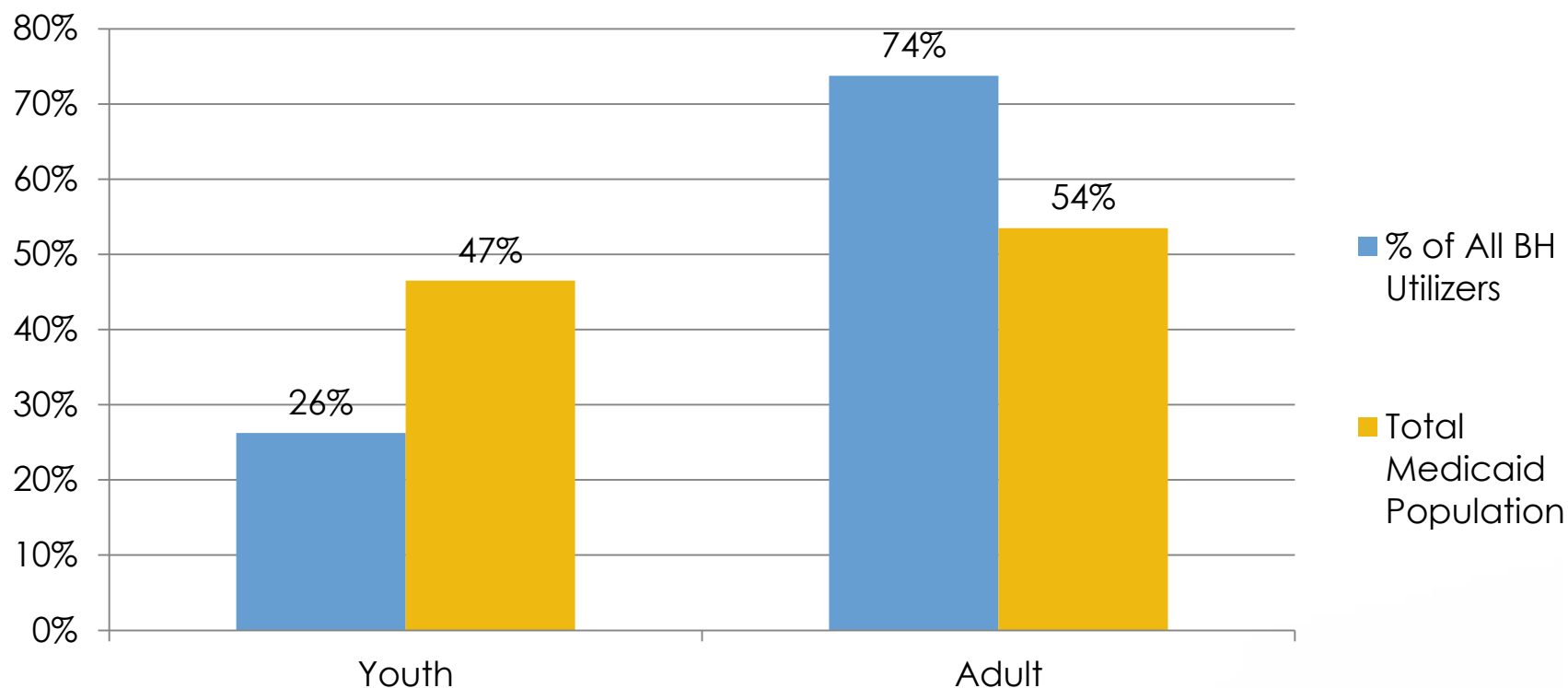
What factors increase risk or provide protection from the frequency of BH ED use?

4.

How can these results inform the system?



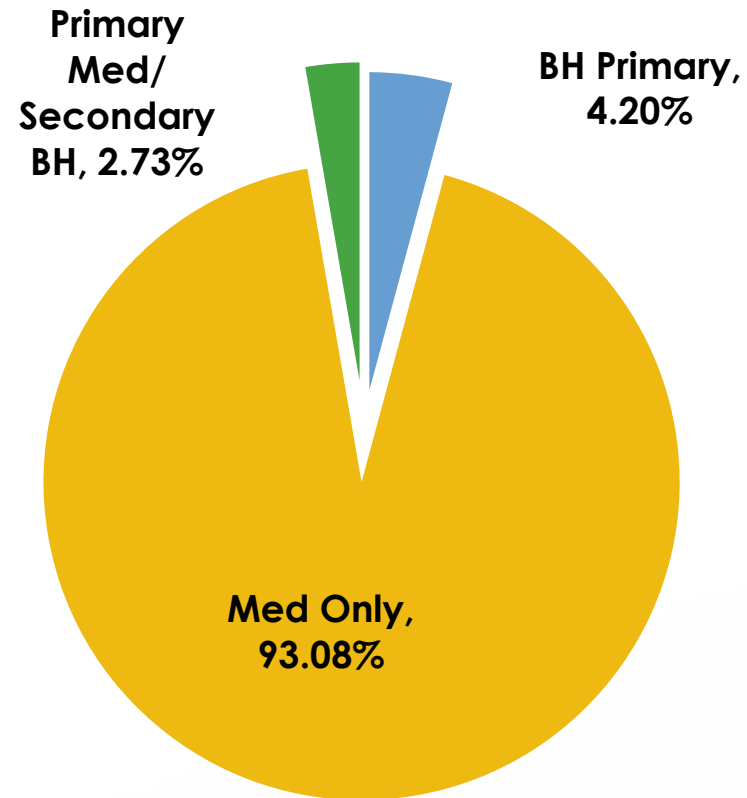
# Youth/Adult Medicaid Population



- 539,700 total Medicaid members (adult and youth) were identified in the study.
- Youth represent 47% of the population, but only 26% of all (youth and adult) BH utilizers.
- Adults utilize the majority of all BH services.



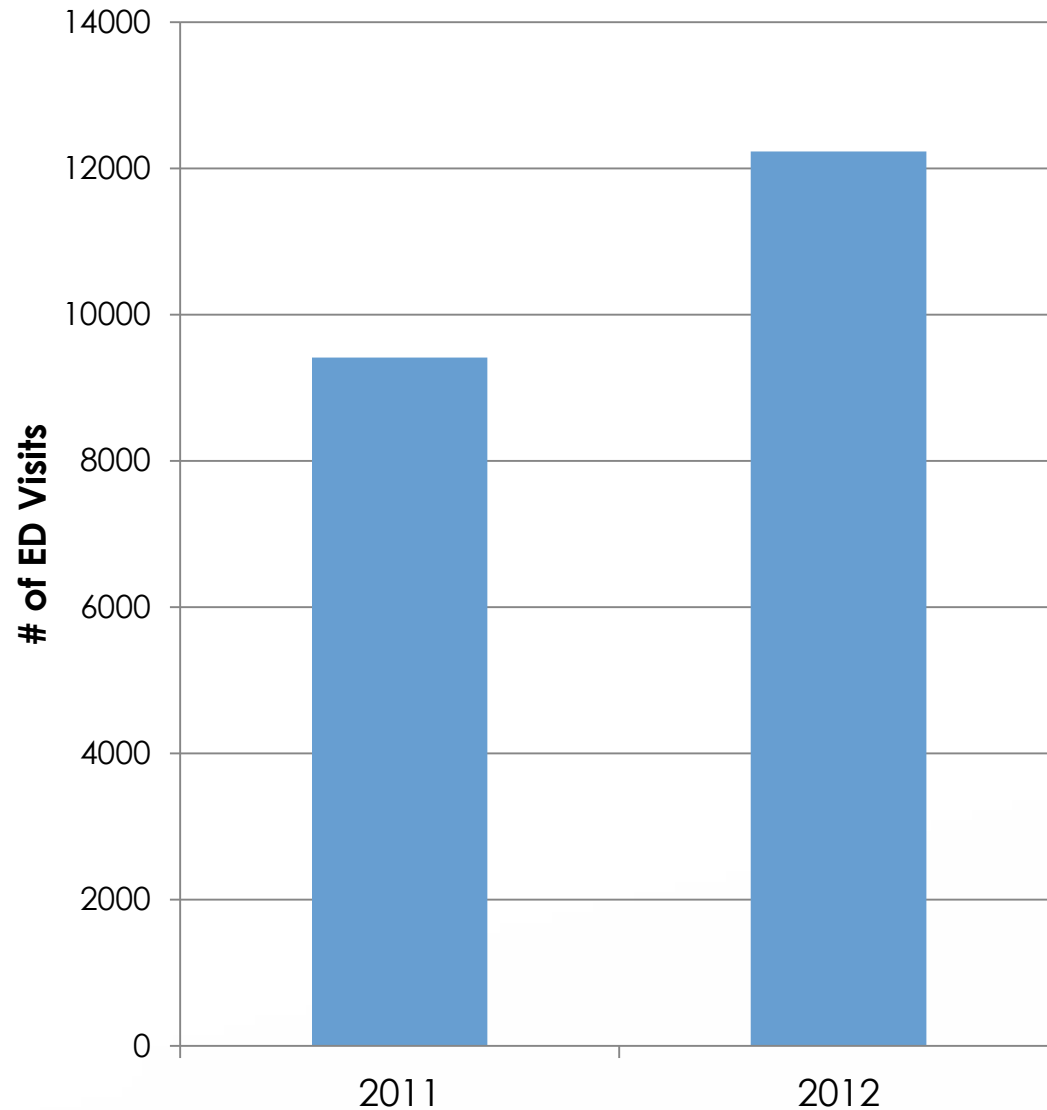
# Why Did Youth Use the ED?



- 133,288 youth had 304,686 ED claims during the study period.
- The majority of ED claims were for medical reasons (93%).
- Approximately 7% of all ED claims were for behavioral health (primary or secondary diagnosis N = 21,328).



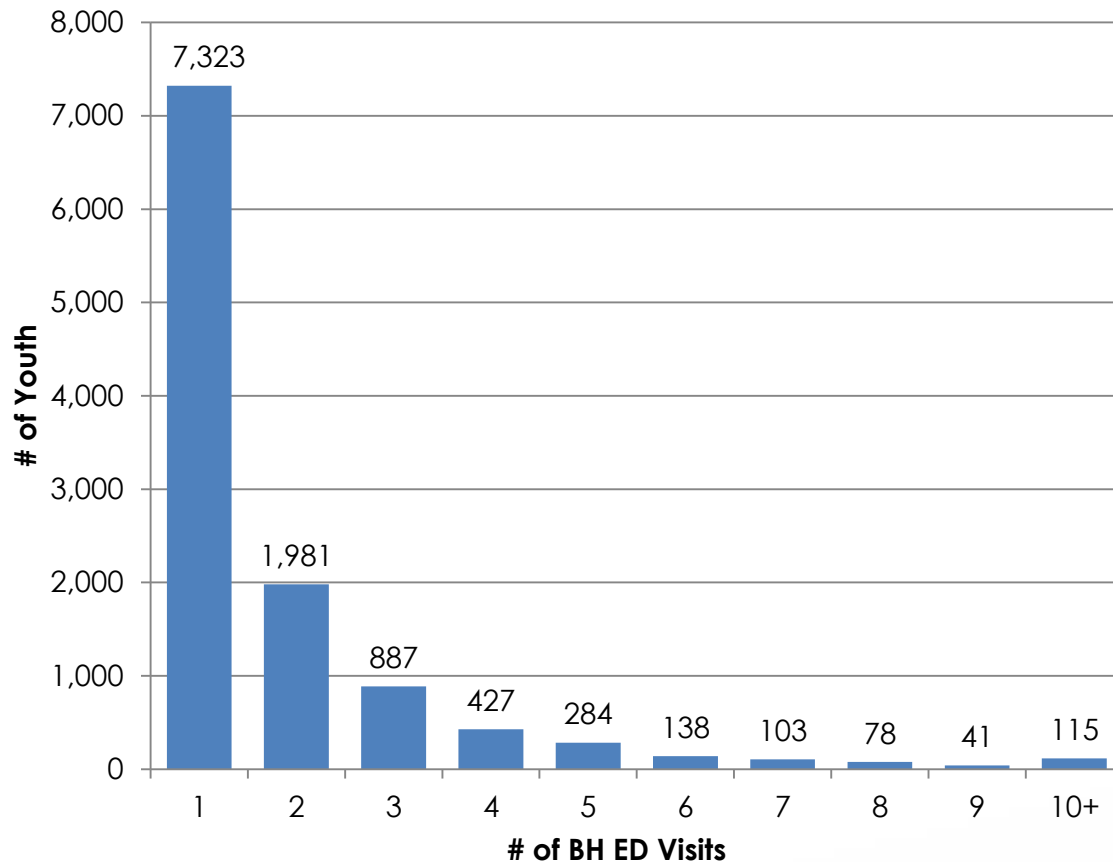
# Increase in BH ED Utilization



**The volume of youth BH ED visits increased by 30% between 2011 and 2012.**



# BH ED Frequency Distribution

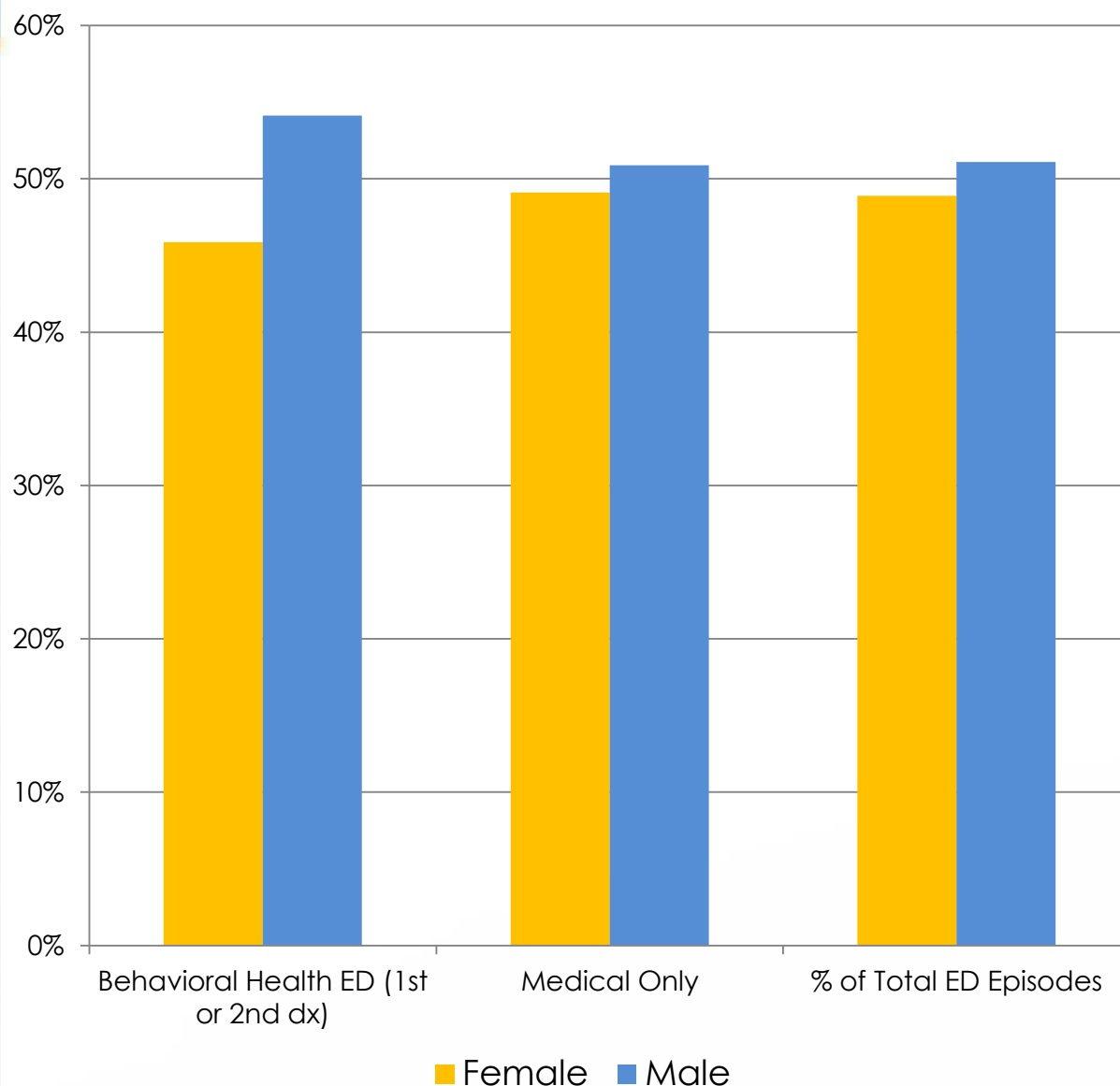


Of all the youth who had a BH ED visit during the 2-year study period:

- The majority (64%) only had 1 ED visit.
- Over 80% had two or fewer visits.
- The range was from 1-26 total ED visits.
- 115 unique youth had 10+ ED visits.



# Gender and ED Use by Diagnosis Indicator



- Males are over-represented in BH ED utilization.
- Males and females utilized medical ED services at rates similar to their population rate.

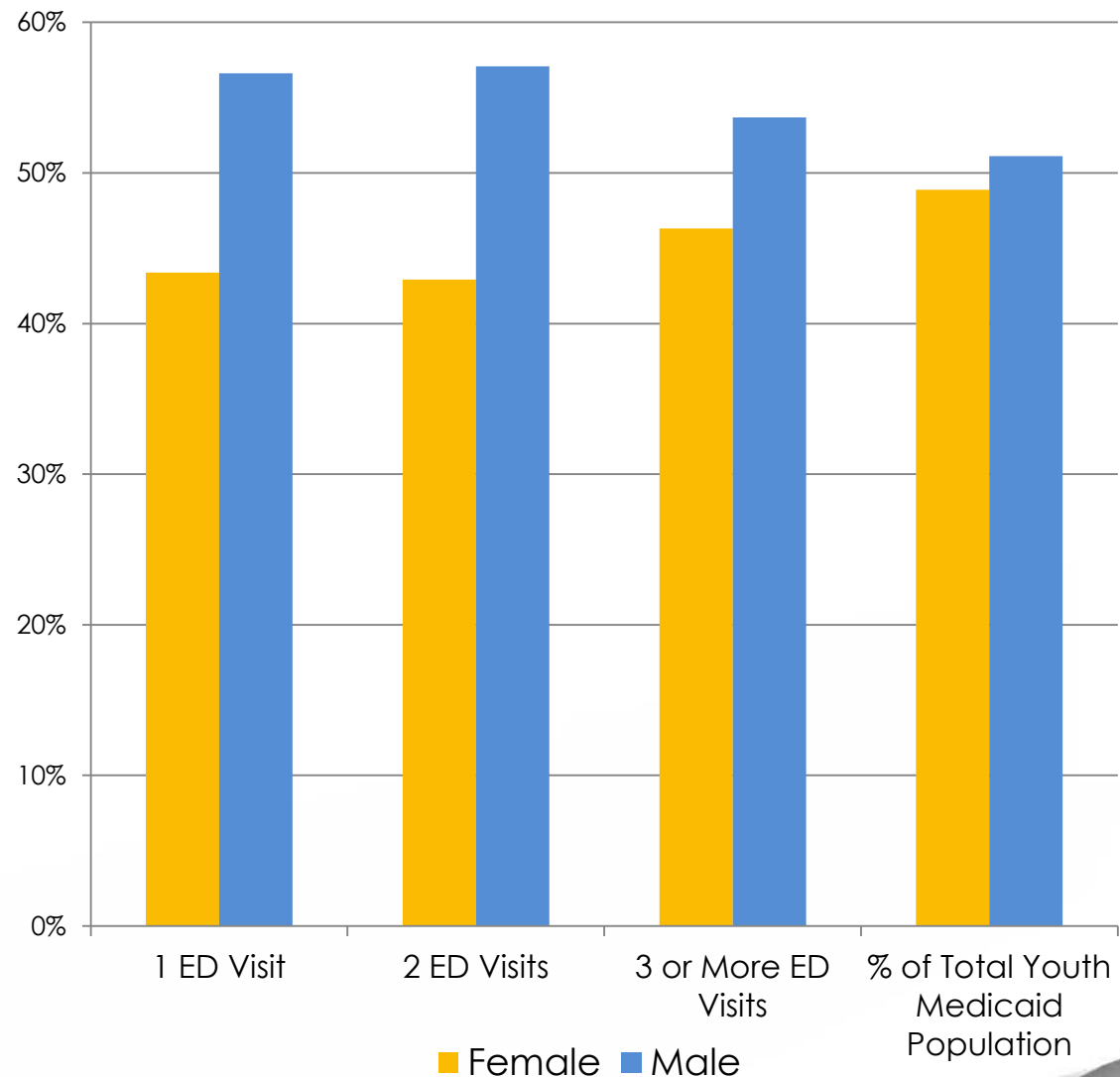


Note: This data is not unique members, as members may have episodes of more than one type of ED visit.

# Gender and Frequency of BH ED visits



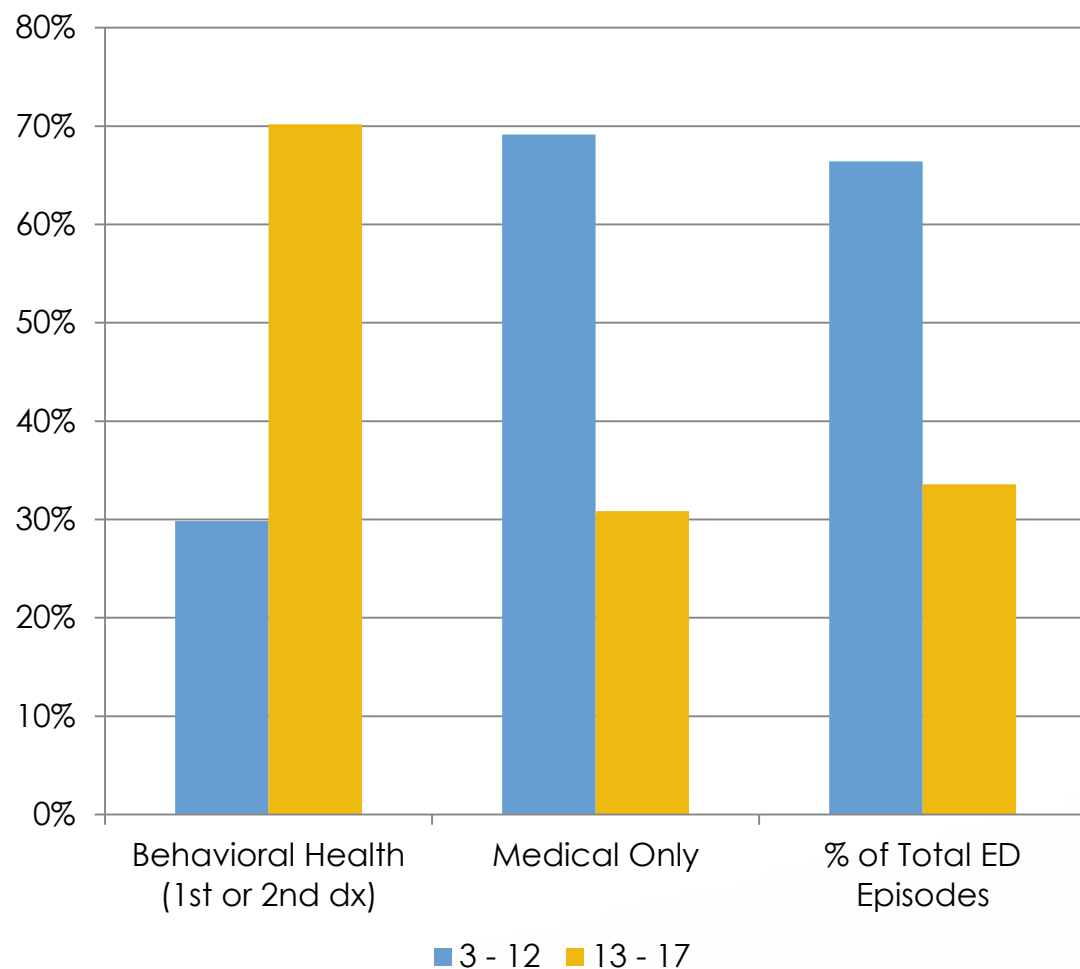
- Compared with their population rate, males are over-represented in their use of the ED for BH needs.
- As the frequency of BH ED visits increases, the discrepancy between males and females decreases



Note: This data shows unique members. A youth can only be counted in one category.



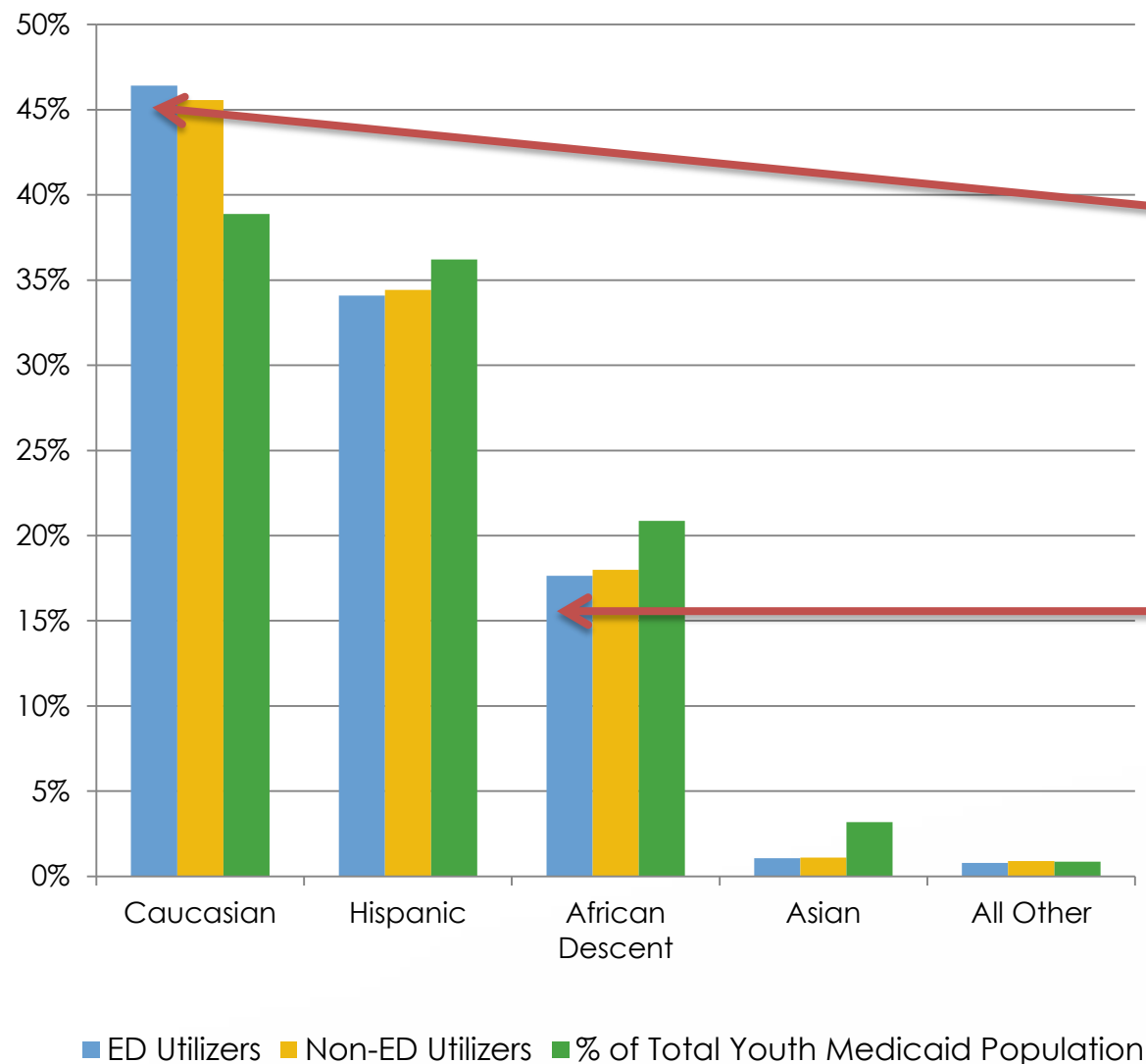
# Age by ED Diagnosis Indicator



- Children ages 3-12 make up the majority of all ED visits.
- Younger children are most often going to the ED for medical reasons.
- Adolescents, on the other hand, are utilizing the ED for BH needs at significantly higher rates.

Note: This data is not unique members, as members may have episodes of more than one type of ED visit.

# Race/Ethnicity by ED and Non-ED Utilizers of BH Services



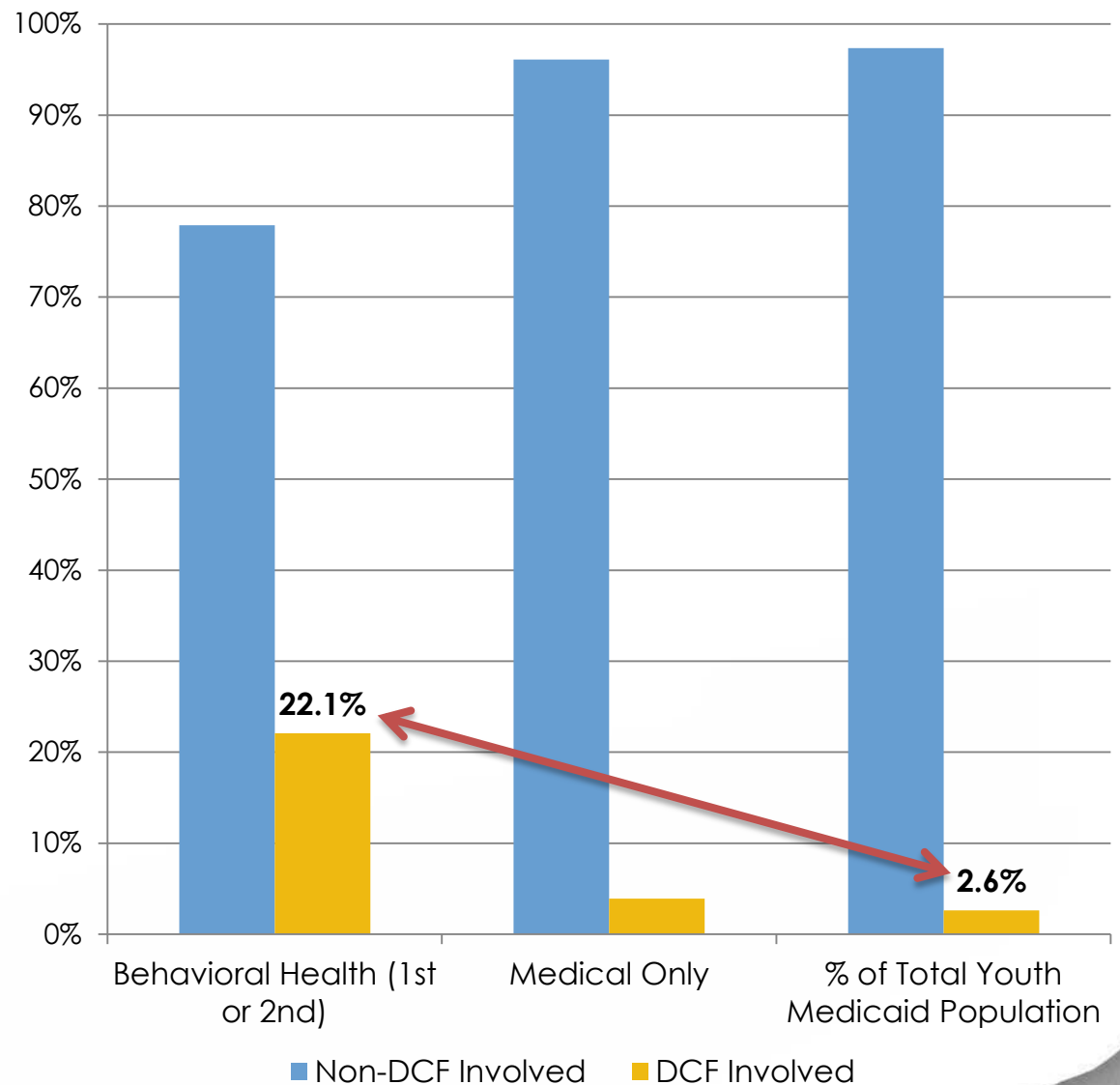
- Caucasians were over-represented in the BH cohort overall, but most so in the ED utilizer group.
- All other race/ethnic categories are under-represented in ED utilization, with the African Descent group being the most under-represented.

Note: This data shows unique members. A youth can only be counted in one category.

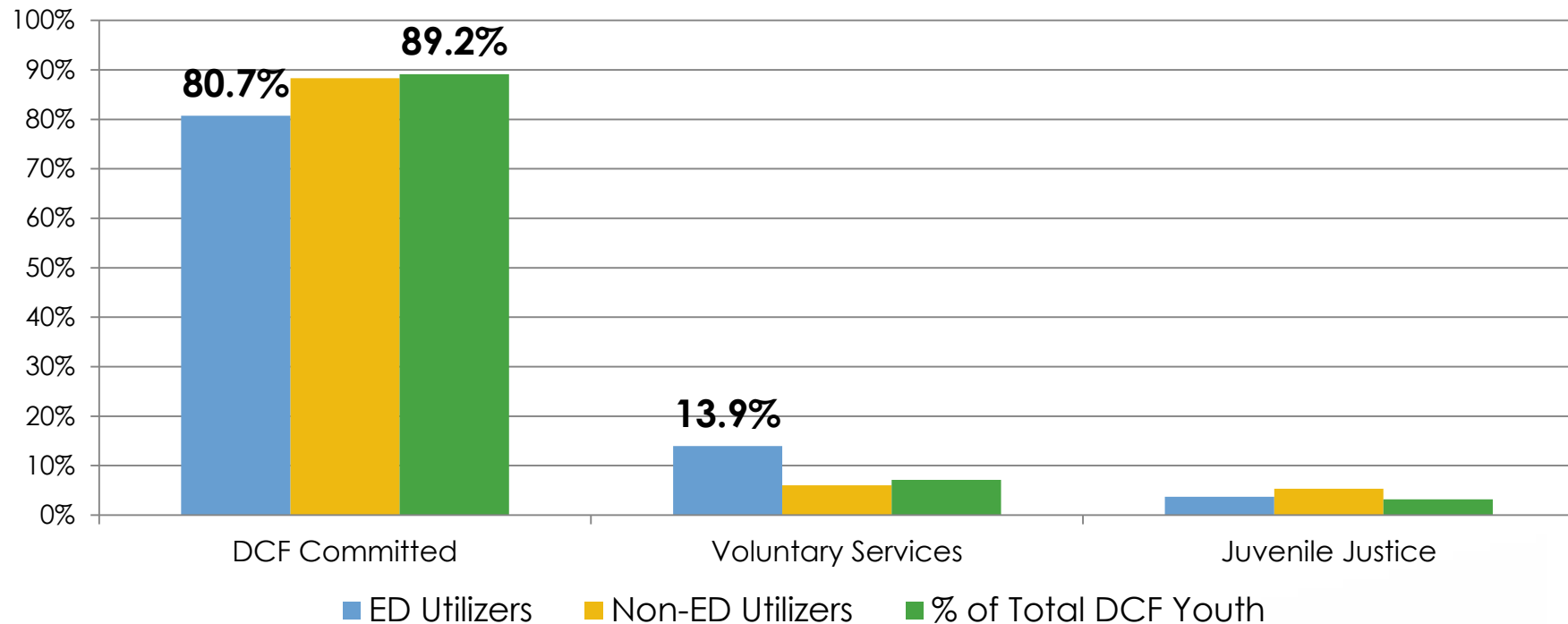


# DCF Involvement by Diagnosis Indicator

- DCF involved youth make up less than 3% of the total population.
- DCF Youth neither under or over use the ED for medical reasons
- DCF involved youth are significantly over-represented in BH ED utilization.



# DCF Status by ED and Non-ED Utilizers of BH Services



- DCF Committed youth make up 89% of all youth identified as DCF involved, but of the DCF youth who used the ED, Committed youth make up only 80%.
- Youth involved with Voluntary DCF services are over-represented in ED Utilization compared to their portion of the DCF youth in the BH cohort.

Note: FWSN and Dually Committed youth are not graphed as their percentages were too small to show. DCF involvement was calculated based on status on the last day of the study period.



# Who is at Risk for ED Utilization?

## Multiple Regression Analyses

### Strong Risk Factors for 1+ ED visits

- 1 or more inpatient medical stays
- Alcohol related disorders
- Personality Disorders
- Attending a PRTF
- Nicotine related disorders
- Autism Spectrum Disorders

### Strong Risk Factors for 3+ ED visits

- Intellectual Disabilities
- Nicotine related disorders
- Personality Disorders
- Psychoses
- Attending a PRTF

### Strong Protective Factors for 1+ ED visits

- One or more Outpatient Treatment Visits
- Attending a Residential Treatment Facility



# Next Steps & System Recommendations

Approximately 2000 youth utilized the ED 3 or more times and youth within DCF voluntary services are at very high risk for multiple visits.

- Consider establishing an intensive service such as High Fidelity Wrap-around to serve this group.

Racial and Ethnic disparities, particularly for African American Youth, exist in ED utilization.

- Consider linking with other projects/efforts to address health disparities.

Utilization of the pediatric ED continues to rise despite comparable increases in the use of alternatives such as EMPS.

- A further clinical study of the two populations (EMPS & ED) may help to increase rates of diversion from the ED.

# Next Steps & System Recommendations

Intellectual disability and Autism were predictors of multiple visits to the ED.

- Consider establishing stronger partnerships between DDS and mental health providers and developing/expanding specialty community based services.

Receiving outpatient services was protective against ED utilization.

- Promote access and enhance the quality of outpatient care to bolster this protective effect.



# Questions?

