

Exploring Children's Assertive Community Treatment and Home and Community-Based Treatment Services

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Study Purpose

- ✦ Explore MaineCare mental health service use and expenditure trends for children and youth enrolled in Children's Assertive Community Treatment (ACT) and Home and Community-Based Treatment Services (HCT)
- ✦ Compare changes in mental health service use and costs pre and post enrollment in service between ACT and HCT
- ✦ Develop a descriptive profile of child and youth users of these services

Study Design

- Study data was derived from: MaineCare Paid Claims Data
- The MaineCare Paid Service Claims extract is based on date of service and paid claims status of 71. The extract includes all primary health and behavioral health care claims. No adjustments made to the data.
- Mental Health Service Claims identified by specific MaineCare Procedure Codes and with specific services a Mental Health related diagnosis on the claim (ICD-9 Code: 291 thru 314.99 and 316. Excludes Mental Retardation (315 – 315.99)).

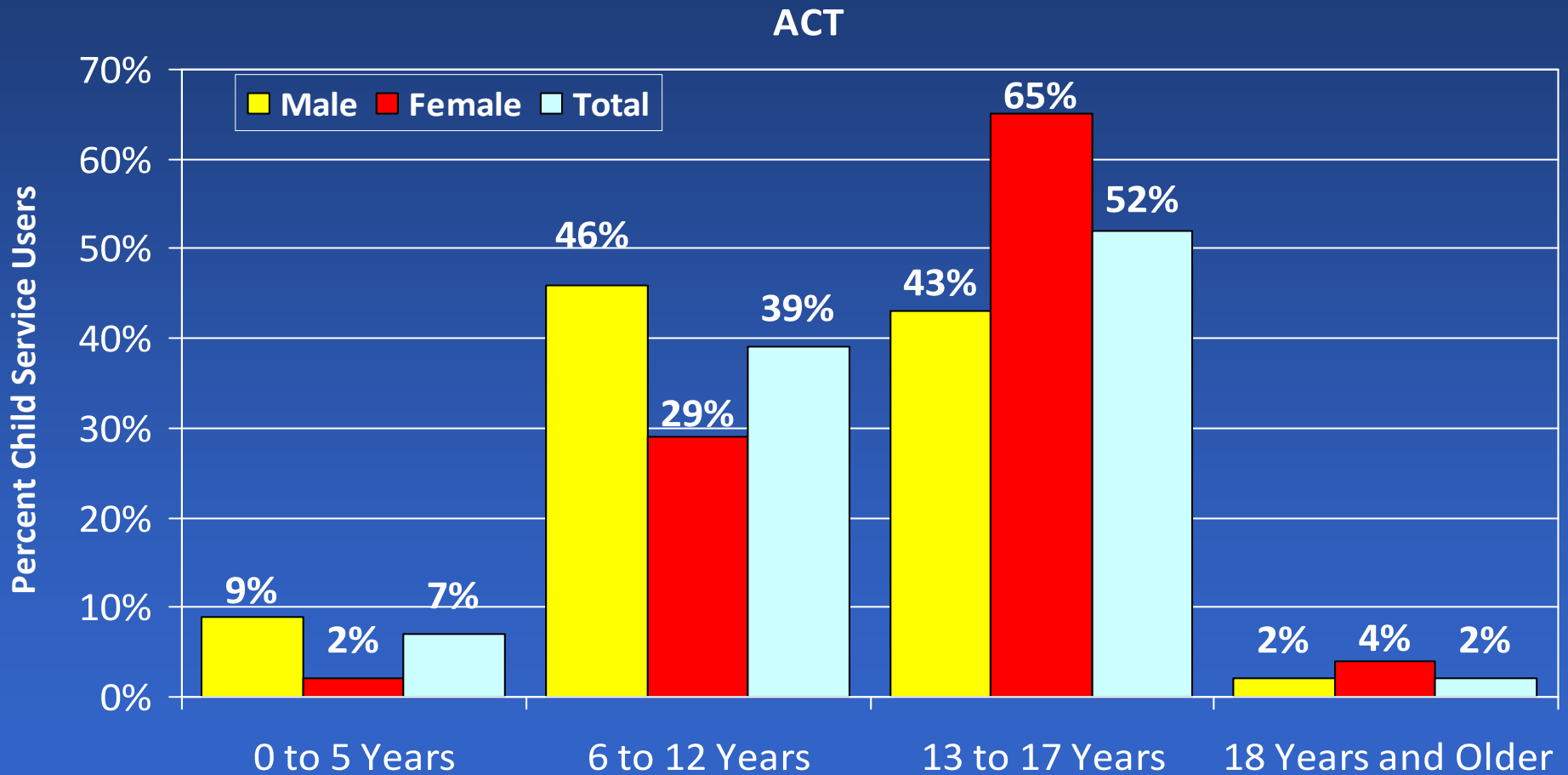
Study Design (continued)

- Study population: All child/youth new entries into Child ACT or HCT Service between July 1, 2007 and September 30, 2008.
- A new entry into service was defined as any child who received ACT/HCT during target time period and who did not receive ACT or HCT services for at least 6 months before the current entry into service.
- Pre-Post Study Design: MaineCare Paid Service Claims pulled for a six-month period Pre-Entry into ACT/HCT Service and 12-months Post-Entry into services. The Post Entry period is split into Post 1 (1st 6 months after service entry) and Post 2 (2nd 6 months after service entry).
- Average ACT and HCT Study user costs were derived by dividing the total ACT (336) or HCT (1972) study service users into the total paid amount for each identified service for each pre-post time period. This methodology divides the costs for each service across all study members and provides a consistent metric for assessing changes in cost over time.

ACT/HCT Study Target Services

- ✦ **Children's Assertive Community Treatment**
- ✦ **Home & Community-Based Treatment**
- ✦ **Outpatient Clinical Treatment**
- ✦ **Emergency Crisis Resolution Services**
- ✦ **Outpatient Medication Assessment and Treatment**
- ✦ **Out-of-Home Residential Treatment Services**
- ✦ **Hospital Inpatient Treatment**
 - **Community Hospital Psychiatric Units**
 - **Psychiatric Inpatient Hospitals**
- ✦ **Hospital Emergency Room Services for MH Reason**

Children and Youth: Age and Gender

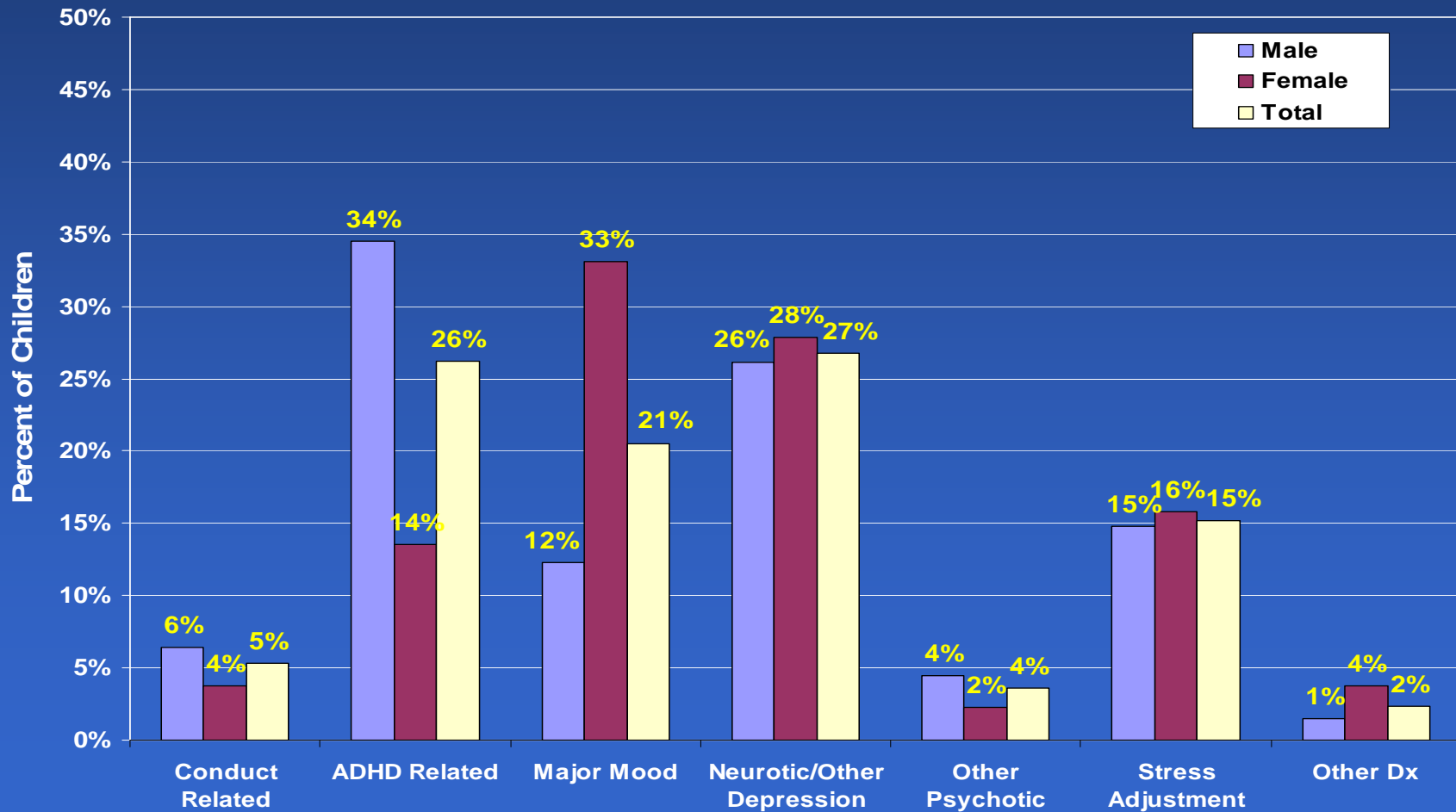


Average Age: Male = 11.56
Female = 13.39
Total = 12.28

Unduplicated Count
N = 336

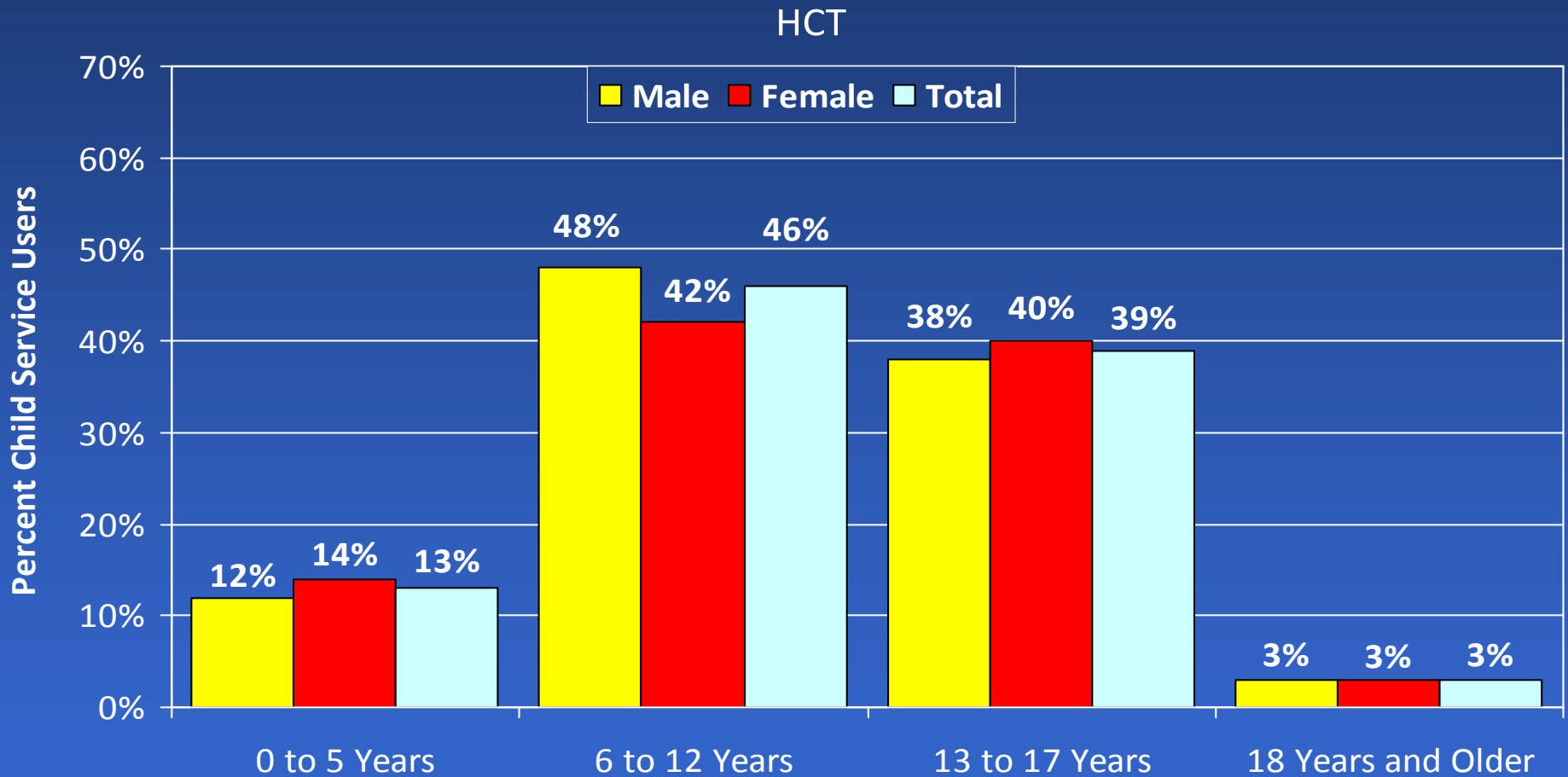
Children and Youth: Diagnosis By Gender

ACT



N = 336

Children and Youth: Age and Gender

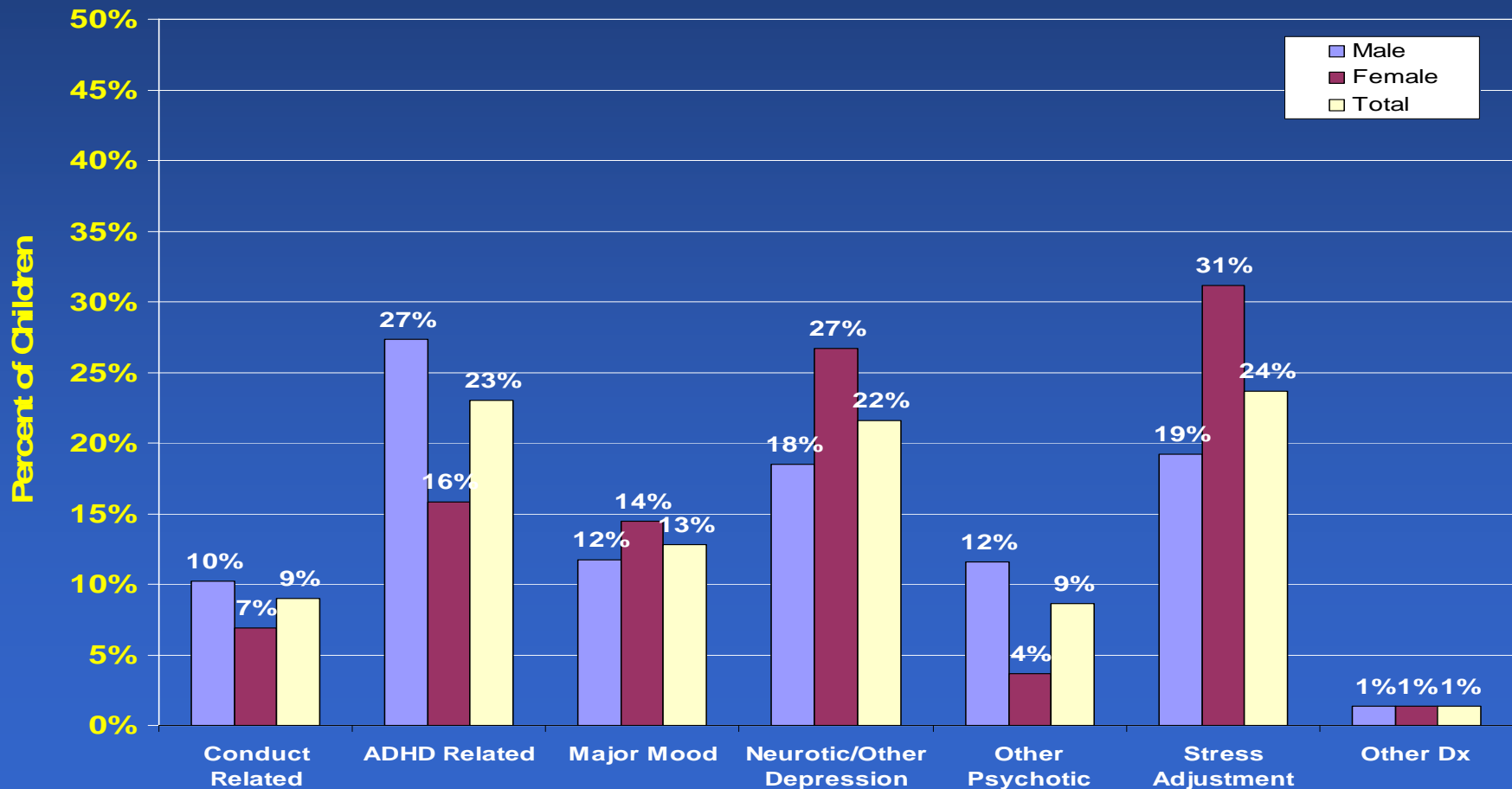


Average Age: Male = 11.08
Female = 11.26
Total = 11.15

Unduplicated Count
N = 1,953

Children and Youth: Diagnosis By Gender

HCT



N=1972

ACT/HCT Study Period: Service Use

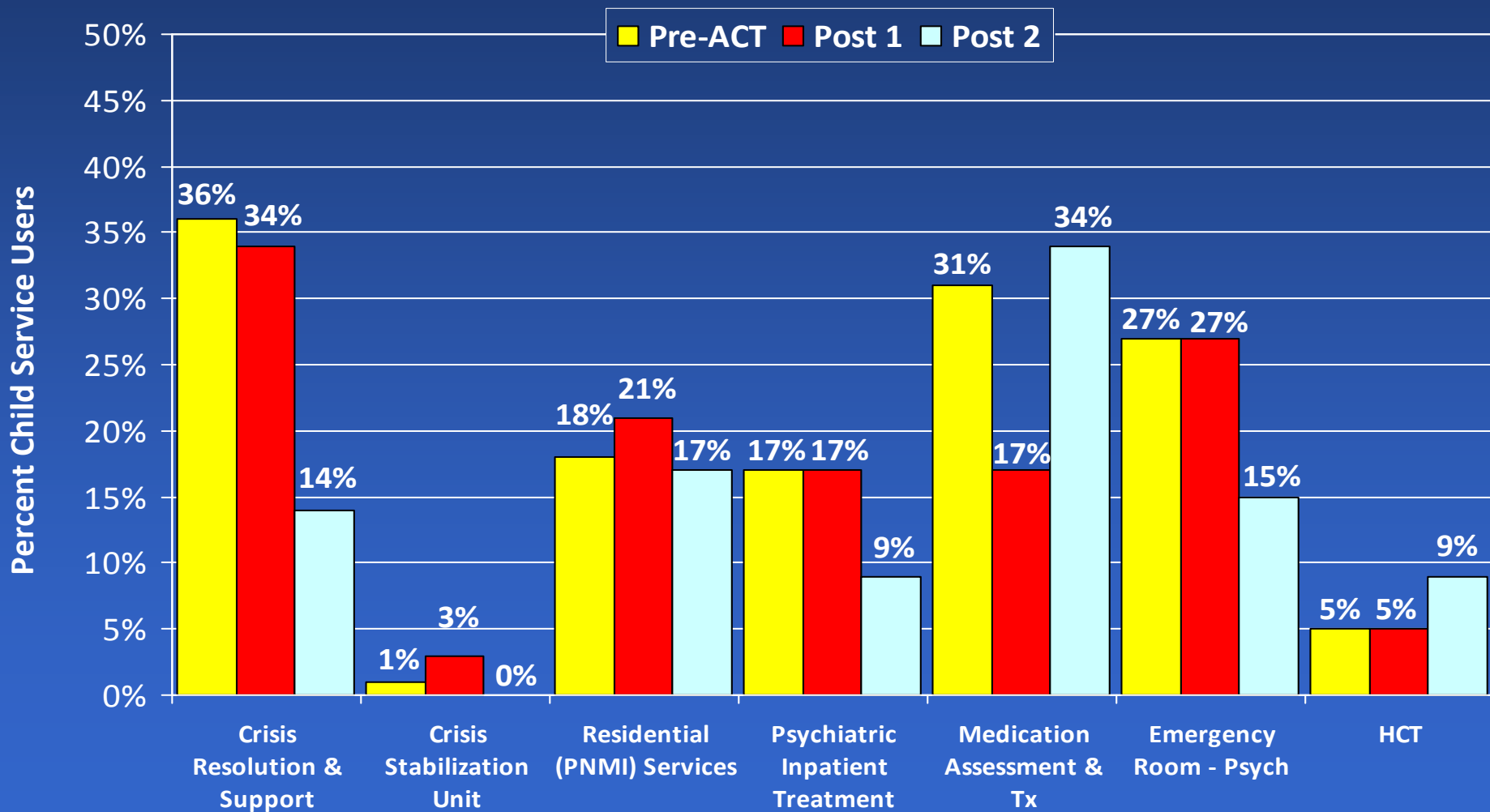
ACT Services

- ◆ 336 children received treatment during the study period
 - No ACT services received for 6 months pre-treatment
 - 2 post treatment time periods created:
 - ※ Months 1 to 6 (Post 1)
 - ※ Months 7 to 12 (Post 2)
- ◆ 253 children received and left ACT Treatment during first 6 months post treatment with an average length of treatment of 3.83 months

HCT Services

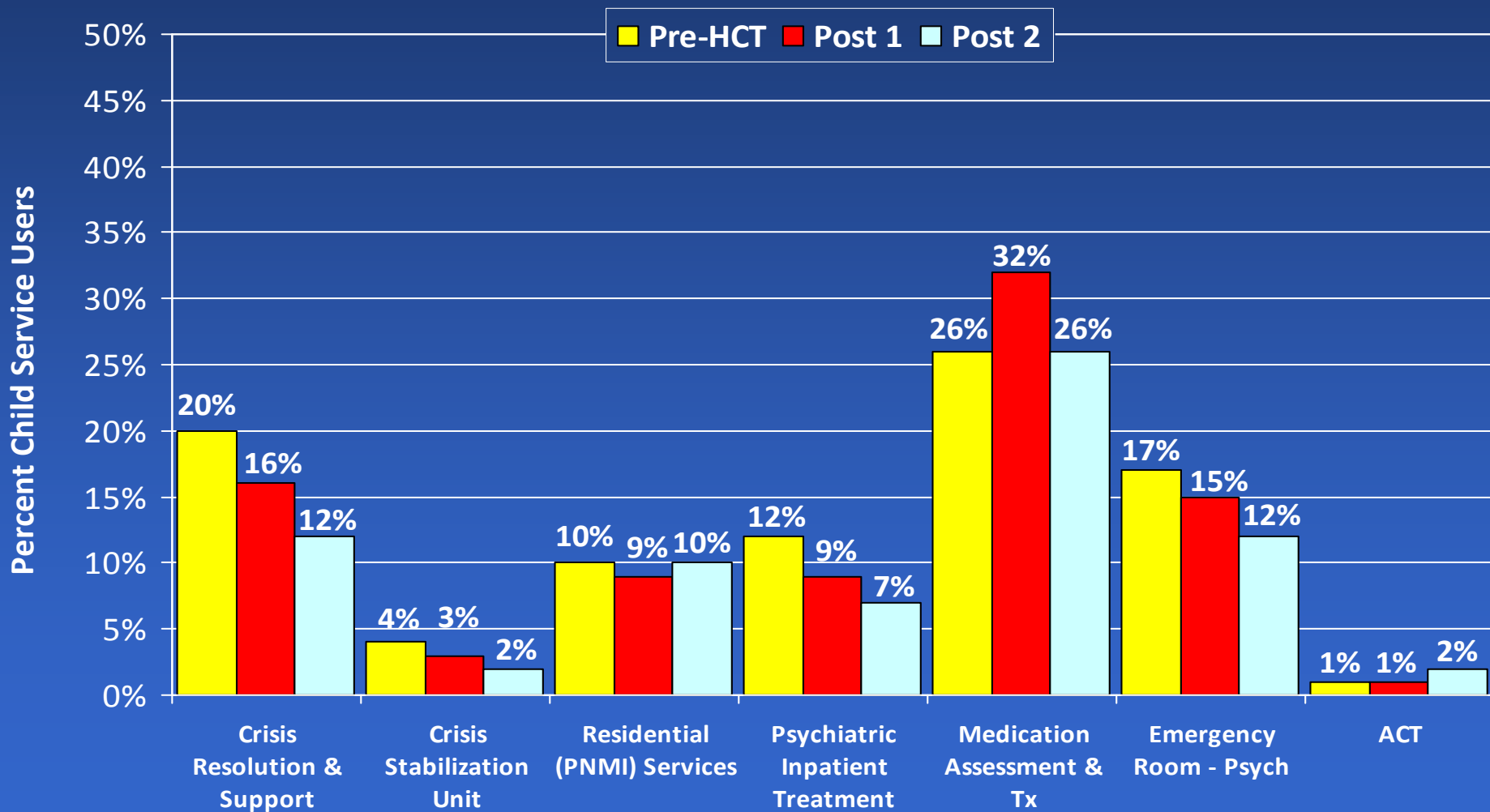
- ◆ 1,972 children received treatment during the study period
 - No HCT services received 6 months pre-treatment
 - 2 post treatment time periods created:
 - ※ Months 1 to 6 (Post 1)
 - ※ Months 7 to 12 (Post 2)
- ◆ 1,091 children received and left HCT Treatment during first 6 months post treatment with an average length of treatment of 3.33 months

ACT Pre-Post Service Use: Selected Mental Health Services



Unduplicated Count N = 336

HCT Pre-Post Service Use: Selected Mental Health Services



Unduplicated Count N = 1,972

Results:

ACT/HCT Mental Health Service Use

- ✦ Compared to HCT participants, ACT service users were significantly more likely to use:
 - Crisis Resolution and Support Services
 - Residential (PNMI) Services
 - Inpatient Psychiatric Services
 - Emergency Rooms for MH Reason
 - Medication Assessment and Treatment Services

ACT/HCT Results:

ACT/HCT Pre-Post Service Use

- ✦ Among ACT users, the use of:
 - Inpatient Psychiatric Treatment, Crisis Intervention, and Emergency Rooms decreased between pre and post study periods, while
 - Use of residential treatment did not decrease significantly between pre-post study period
- ✦ Among HCT users, similar to ACT, the use of:
 - Inpatient Psychiatric Treatment, Crisis Intervention and Emergency rooms decreased between pre and post study periods, while
 - Use of residential treatment did not decrease significantly between pre-post study period

HCT and ACT Study Users: Pre-Post Average Costs

Services	HCT (n=1,972)			ACT (n=336)		
	Pre-Entry (6 mos.) to Tx: Avg. Cost per HCT User	Post HCT (1-6 mos.) to Tx: Avg. Cost per HCT User	Post HCT (7-12 mos.) to Tx: Avg. Cost per HCT User	Pre-Entry (6 mos.) to Tx: Avg. Cost per ACT User	Post ACT (1-6 mos.) to Tx: Avg. Cost per ACT User	Post ACT (7-12 mos.) to Tx: Avg. Cost per ACT User
ACT Services	\$41	\$29	\$111	\$0	\$9,192	\$1,094
HCT Services	\$0	\$4,894	\$1,525	\$131	\$45	\$219
Crisis Resolution & Support	\$268	\$205	\$148	\$471	\$563	\$212
Crisis Stabilization Unit	\$113	\$99	\$49	\$29	\$93	\$11
Residential (PNMI) Services	\$3,070	\$1,731	\$3,036	\$5,221	\$3,391	\$5,019
Inpatient Psychiatric	\$3,462	\$2,854	\$2,156	\$4,175	\$4,780	\$2,614
Emergency Room - Psychiatric	\$50	\$45	\$36	\$84	\$89	\$49
Medication Assessment & Tx	\$157	\$189	\$116	\$148	\$40	\$119
All Mental Health Services	\$10,319	\$13,441	\$9,571	\$12,430	\$19,571	\$11,345

Study Results: Cost of Services

ACT Cost Summary

- ✦ Overall ACT service costs for ACT study users (n=336) for the 12-month post treatment period was \$3,456,097 with an average per child cost of \$10,286
- ✦ Overall mental health service costs (including ACT) for ACT study users over the 12-month post treatment period was \$10,387,834 with a per user cost of \$30,916 – nearly 3x the annual cost of the overall CBHS service group at \$11,175

HCT Cost Summary

- ✦ Overall HCT service costs for HCT study users (n=1,972) for the 12-month post treatment period was \$12,658,100 with an average per HCT user cost of \$6,419
- ✦ Overall mental health service costs (including HCT) for HCT Study users over the 12-month post treatment period was \$45,380,000 with a per user cost of \$23,012 – nearly 2x the annual cost of the overall CBHS service group at \$11,175

ACT/HCT Study: Some Next Steps

- Design and conduct more controlled pre-post service use and cost study based on preliminary findings.
- Focused analysis of residential service use and type of placements used among ACT/HCT service users.
- Using the same ACT/HCT study group examine service use and cost outcomes over an additional 12-months post ACT/HCT treatment to assess if reductions in service use are sustained.
- Focused HCT Study that examines service, cost and behavioral outcomes over the study period.

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