



# DATA FROM THE CTN PLATFORM STUDY: MAJOR FINDINGS

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*September 2010*

# GOALS OF THE CTN PLATFORM STUDY

- To understand organization-level processes of adoption, implementation, and potential discontinuation of evidence-based treatment practices (EBPs)
  - Within the CTN over time
  - Comparing the CTN to non-CTN programs
- To study the counseling workforce within CTN programs
  - Counselor attitudes toward EBPs
  - Workforce issues, such as emotional exhaustion and turnover intention



# METHODOLOGY

- Face-to-face interviews with administrators and/or clinical directors of CTPs & mail/internet based surveys with counselors in CTPs
- Three waves of data collection
  - Baseline (2002-2004)
  - 24 month follow-up
  - 48 month follow-up
- Comparisons with 2 nationally representative samples:
  - Publicly funded programs (N=318)
  - Privately funded programs (N=345)





# RESEARCH ON ADOPTION OF BUPRENORPHINE

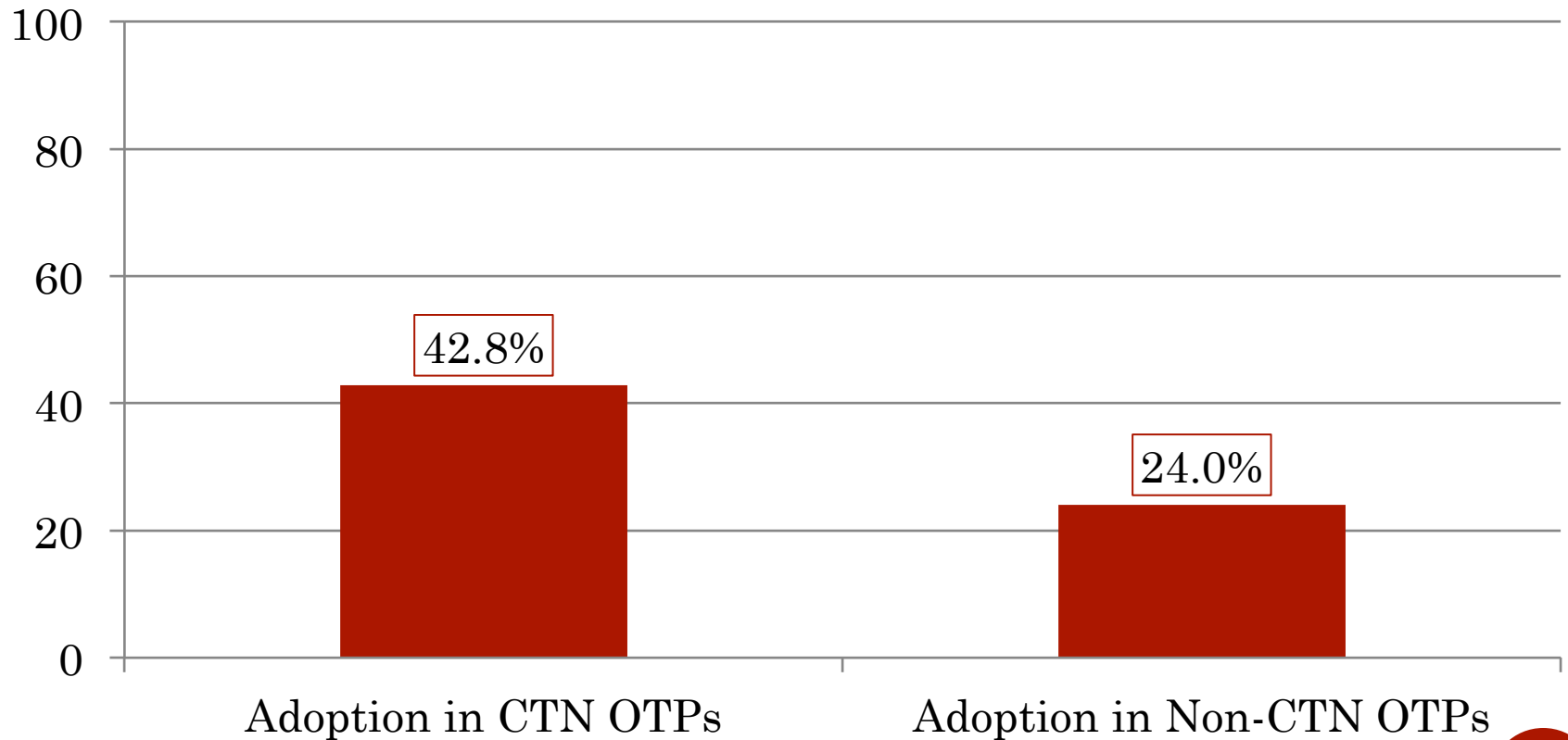
# 1. ADOPTION OF BUPRENORPHINE IN OPIOID TREATMENT PROGRAMS (OTPs)

DUCHARME & ROMAN (2009). *JOURNAL OF SUBSTANCE ABUSE TREATMENT*,  
37, 90-94

- Are OTPs in the CTN more likely to adopt buprenorphine than OTPs outside the CTN?
- Matched sample of 49 OTPs in the CTN and a nationally representative sample of 50 OTPs drawn from SAMSHA's 2005 treatment facility locator



# ADOPTION OF BUPRENORPHINE IN OTPs



Ducharme & Roman. (2009). *Journal of Substance Abuse Treatment*, 37, 90-94.



# KEY FINDINGS

DUCHARME & ROMAN. (2009). *JOURNAL OF SUBSTANCE ABUSE TREATMENT*, 37, 90-94.

- CTN affiliation was significantly associated with buprenorphine adoption
  - CTN OTPs were ***twice*** as likely as non-CTN OTPs to adopt buprenorphine in models controlling for profit-status & staff characteristics
    - Number of employees, number of nurses, and % master's level counselors
  - CTN OTPs were ***three times*** more likely to adopt bup in models controlling for program census



## 2. BUPRENORPHINE ADOPTION OVER TIME

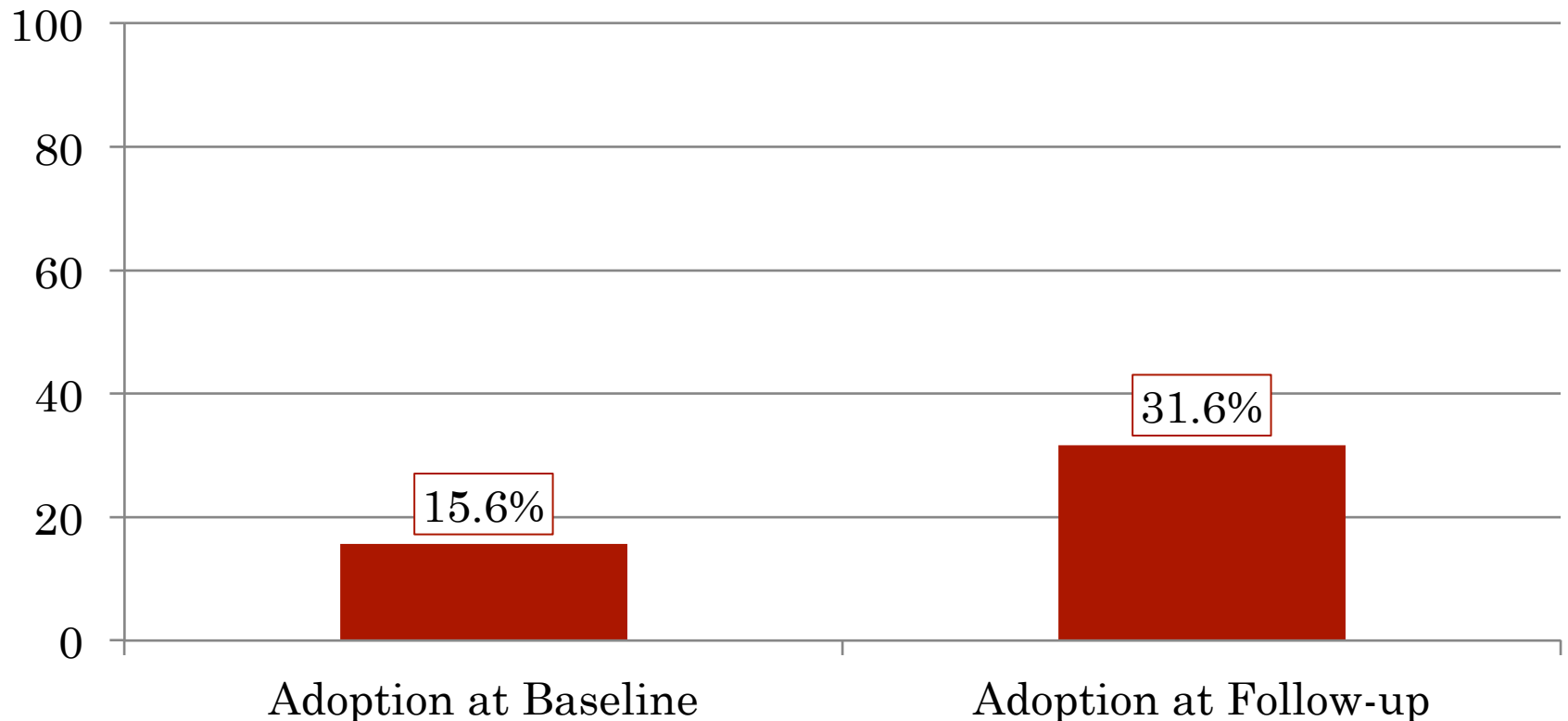
KNUDSEN, ABRAHAM, JOHNSON, & ROMAN. (2009). *JOURNAL OF SUBSTANCE ABUSE TREATMENT*, 37, 307-312.

- Earlier work revealed the importance of protocol involvement in promoting buprenorphine adoption (Ducharme et al., 2007)
- Two additional questions:
  - Is *protocol involvement* associated with adoption over time?
  - Has there been adoption in CTPs *without* bup protocol experience?
- We examined 206 CTPs that participated in both the baseline interview and 24-month on-site follow-up

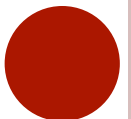




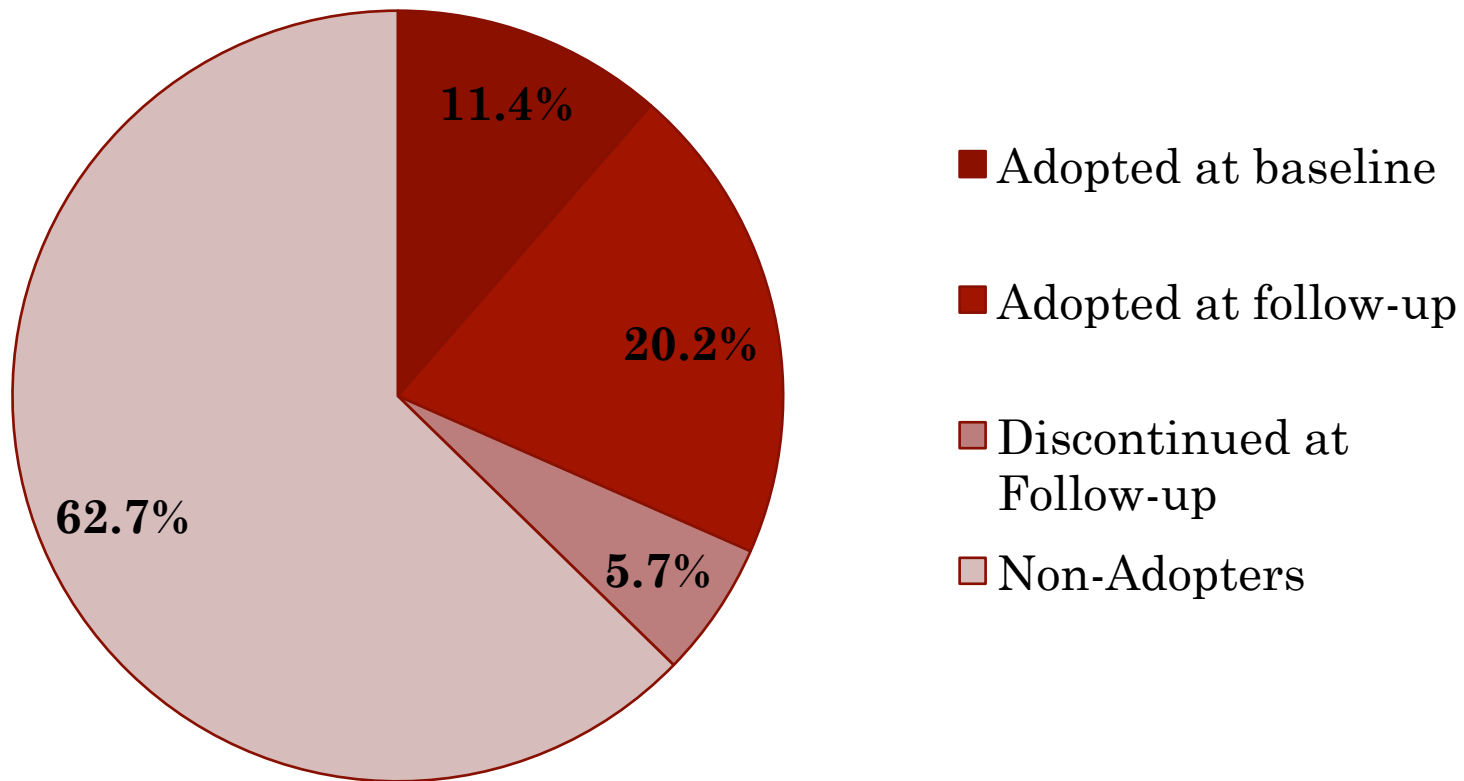
# ADOPTION OF BUPRENORPHINE AT BASELINE AND 24-MONTH FOLLOW-UP



*Knudsen, Abraham, Johnson, & Roman. (2009).  
Journal of Substance Abuse Treatment, 37, 307-312.*



# TYPOLGY OF BUPRENORPHINE ADOPTION



*Knudsen, Abraham, Johnson, & Roman. (2009).  
Journal of Substance Abuse Treatment, 37,  
307-312.*

# OTHER KEY FINDINGS

KNUDSEN, ABRAHAM, JOHNSON, & ROMAN. (2009). *JOURNAL OF SUBSTANCE ABUSE TREATMENT*, 37, 307-312.

- Buprenorphine adoption at baseline was ***strongly associated*** with continued adoption at follow-up
  - “Stable” adoption in these CTPs
- Protocol involvement was still ***positively*** associated with adoption
  - However, much of the adoption at follow-up was in programs ***without*** protocol experience
- Programs offering ***inpatient detox*** and ***for-profit programs*** were more likely to have adopted buprenorphine at follow-up





# ADOPTION OF ALCOHOL PHARMACOTHERAPIES IN CTN AND NON-CTN PROGRAMS

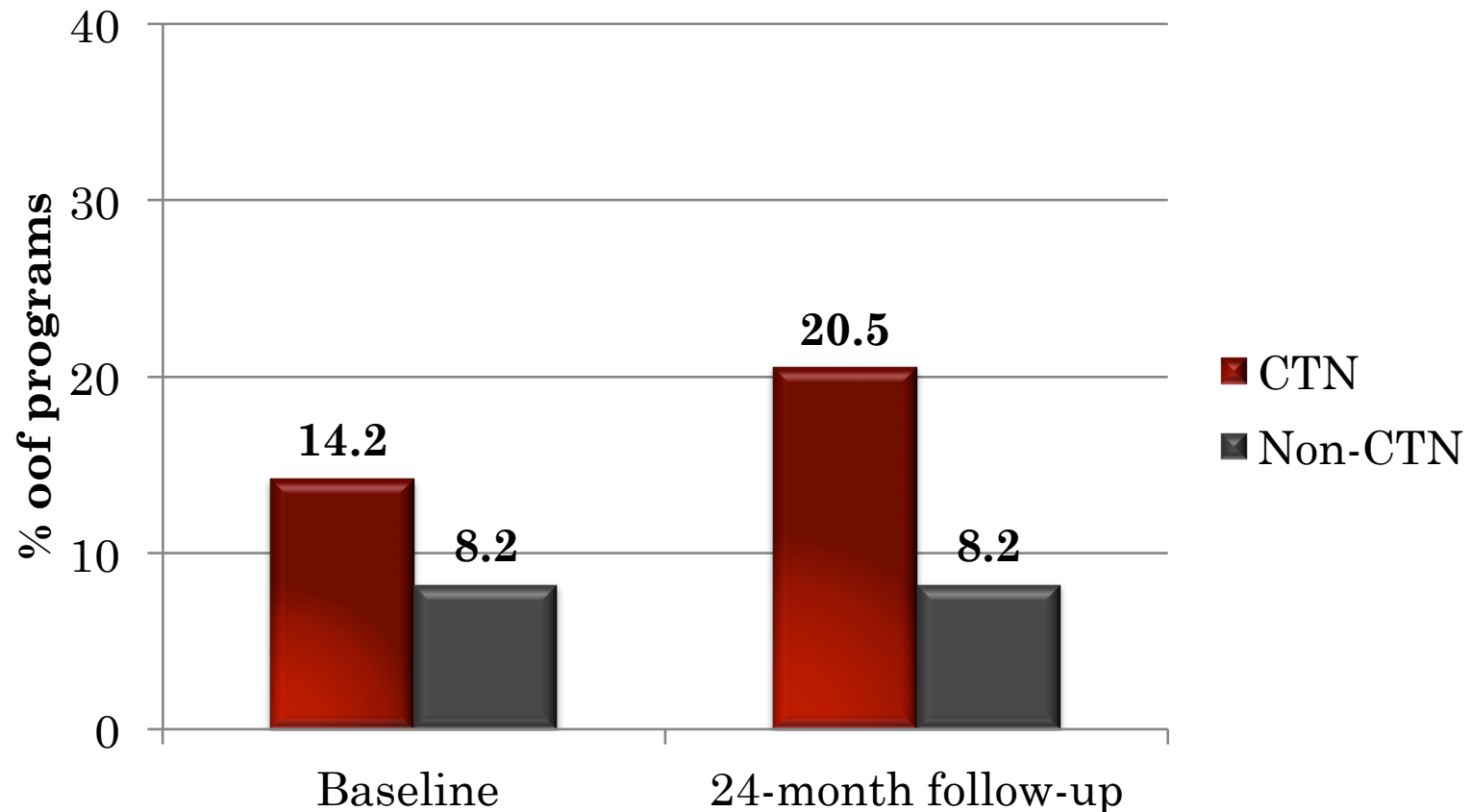
*Abraham, Knudsen, Rothrauff, & Roman. 2010.  
Journal of Substance Abuse Treatment, 38(3):  
275-283.*

# DATA

- Pooled sample of publicly funded CTN and non-CTN programs
  - 127 CTN programs
  - 147 Non-CTN programs
- Utilized data collected at baseline (2002-2004) and 24-month follow-up

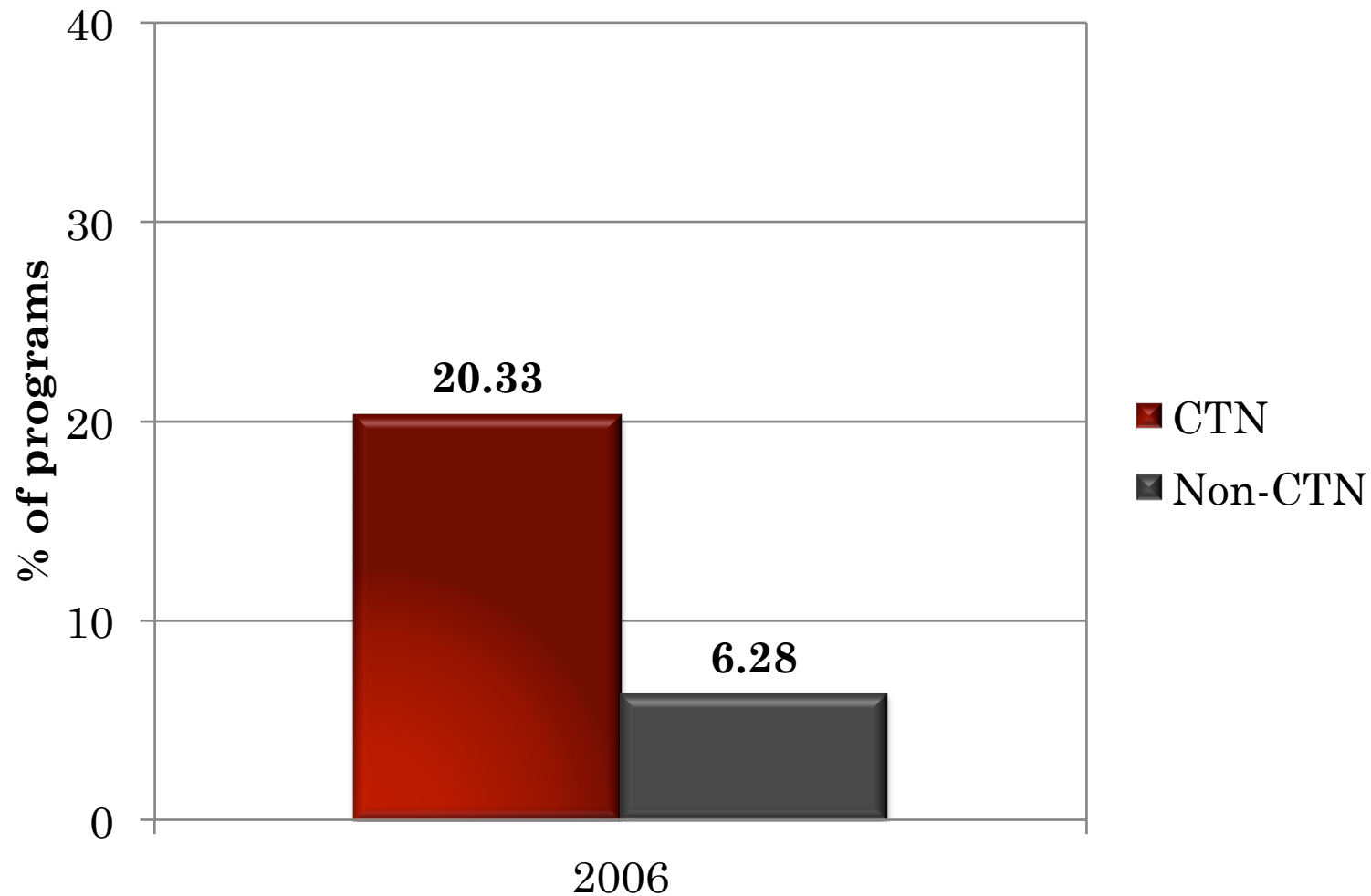


# ADOPTION OF TABLET NALTREXONE FOR ALCOHOL DEPENDENCE



**\*Adoption of tablet naltrexone increased by 6.3% over time in the CTN and did not change in non-CTN programs.**

# EARLY ADOPTION OF ACAMPROSATE



# KEY FINDINGS

ABRAHAM, KNUDSEN, ROTHRAUFF, & ROMAN. (2010). *JOURNAL OF SUBSTANCE ABUSE TREATMENT*, 38(3): 275-283.

- CTN participation was not a significant predictor of tablet naltrexone adoption at baseline
- At 24-month follow-up, CTN programs were three times more likely than non-CTN programs to adopt tablet naltrexone
  - net of program structure and culture, environmental scanning, membership in a provider association, and administrator education
- CTN programs were three times more likely than non-CTN programs to adopt acamprosate in 2006
  - net of program culture, environmental scanning, membership in a provider association, and administrator education







# LATEST FINDINGS FROM THE PLATFORM STUDY

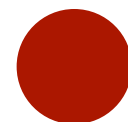
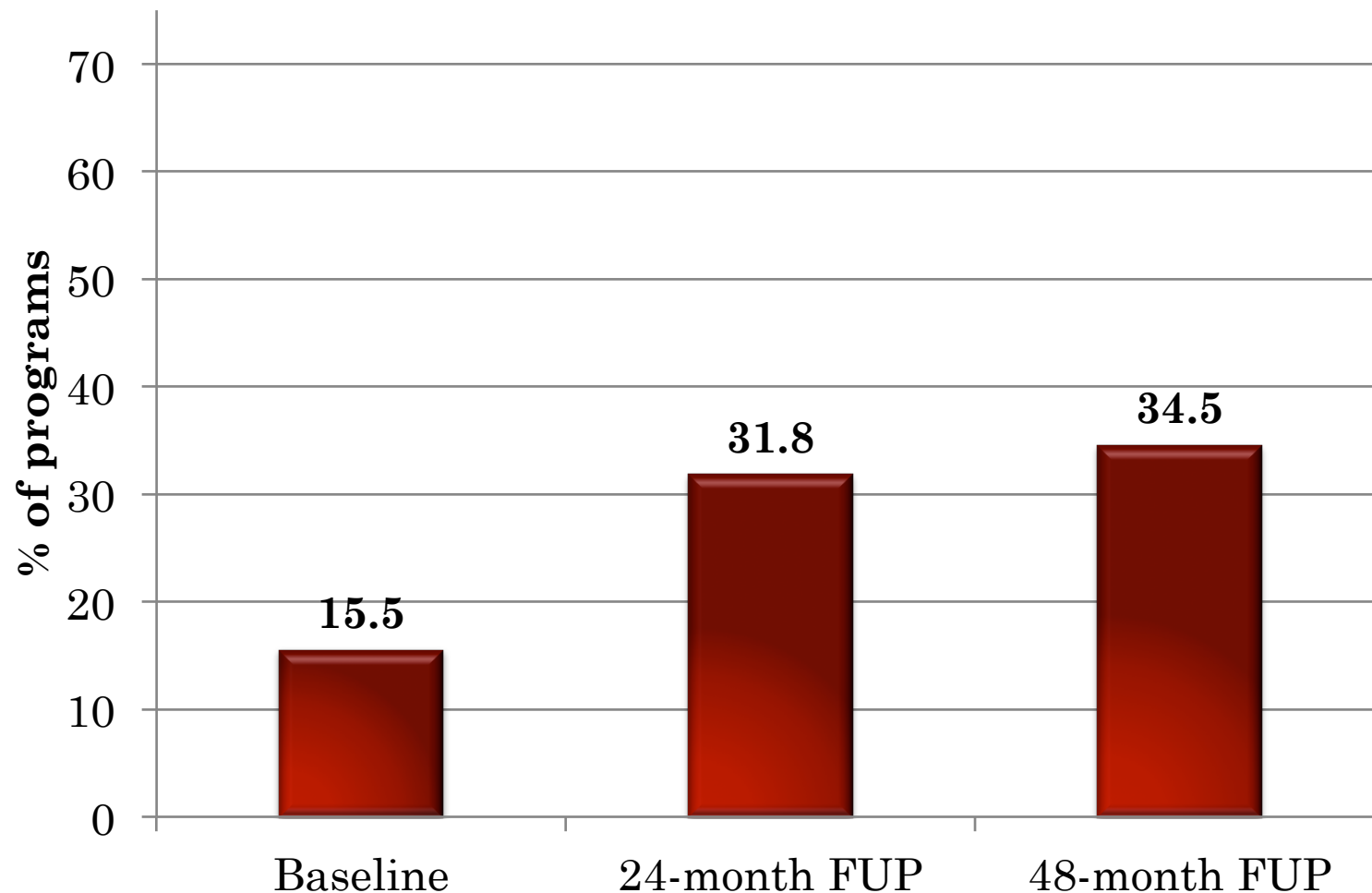
*Roman, Abraham, Rothrauff, Knudsen. (2010).  
Journal of Substance Abuse Treatment, 38(4), S44-  
S52.*



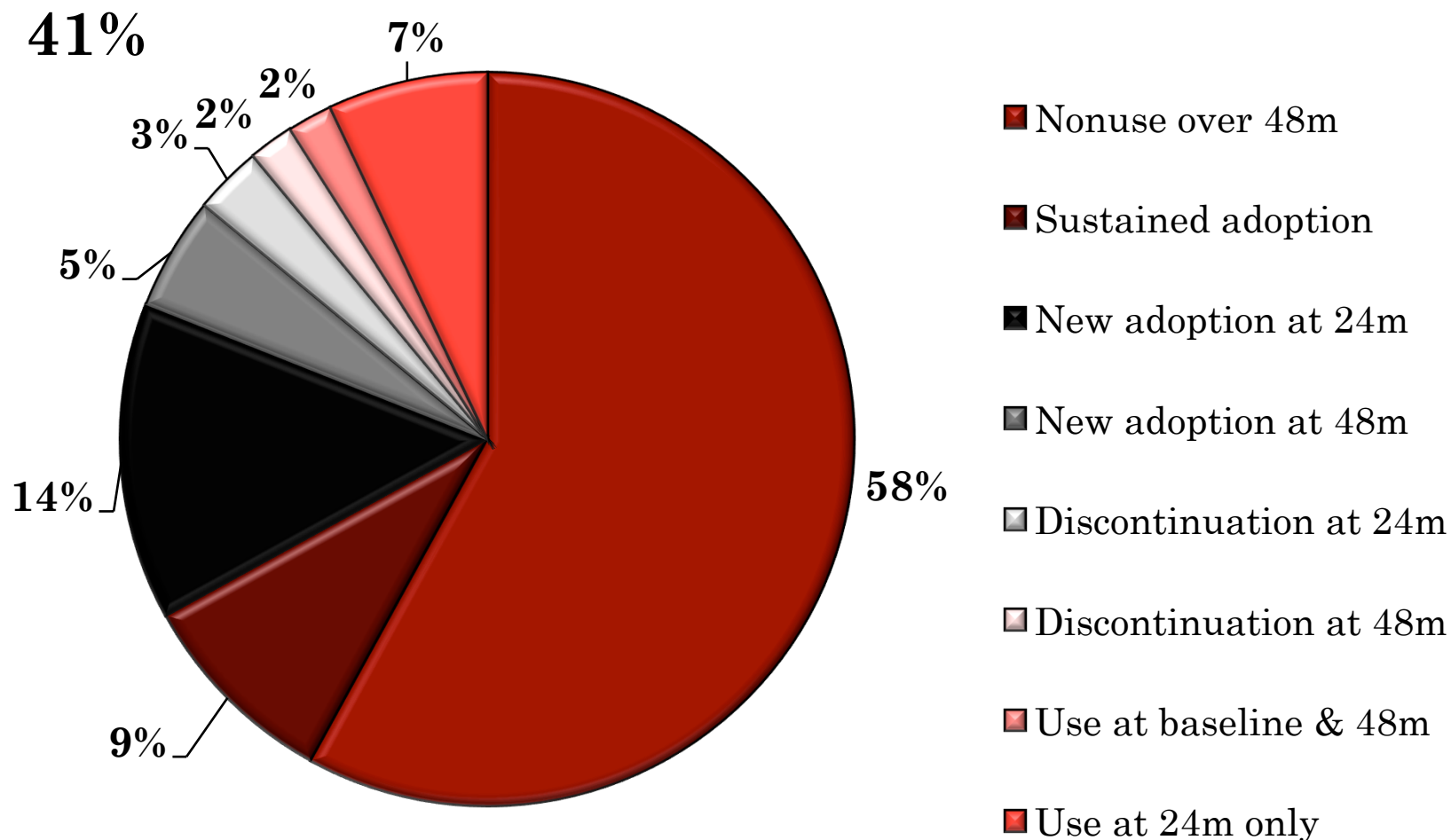
# BUPRENORPHINE OVER A 4 YEAR PERIOD IN THE CTN

Roman, Abraham, Rothrauff, & Knudsen. (2010).  
*Journal of Substance Abuse Treatment*, 38(4):  
S44-S52.

## ADOPTION OF BUPRENORPHINE OVER 4 YEAR PERIOD IN THE CTN: CROSS-SECTIONAL DATA



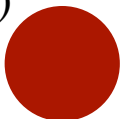
## ADOPTION OF BUPRENORPHINE OVER 4 YEAR PERIOD IN THE CTN: LONGITUDINAL DATA (N=129)



# BARRIERS TO BUPRENORPHINE ADOPTION AMONG NON-ADOPTERS

ROMAN, ABRAHAM, ROTHRAUFF, & KNUDSEN.(2010). *JOURNAL OF SUBSTANCE ABUSE TREATMENT*, 38(4): S44-S52.

- OTPs (N=21)
  - Cost associated with buprenorphine (23.8%)
  - Lack of access to a waived physician (19.0%)
- Non-OTPs, do not prescribe any medications (N=156)
  - 38 programs did not have access to prescribing staff, so adoption was not possible
  - Regulatory barriers (25.9%)
  - Inconsistent with treatment philosophy, better alternatives available (18.5%)
  - Liability issues (18.5%)
- Non-OTPs, prescribe other medications (N=40)
  - Cost of buprenorphine (17.5%)
  - Prescriber did not have a buprenorphine waiver (17.5%)
  - Current medical personnel prefer not to prescribe buprenorphine (10%)

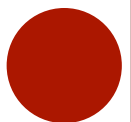
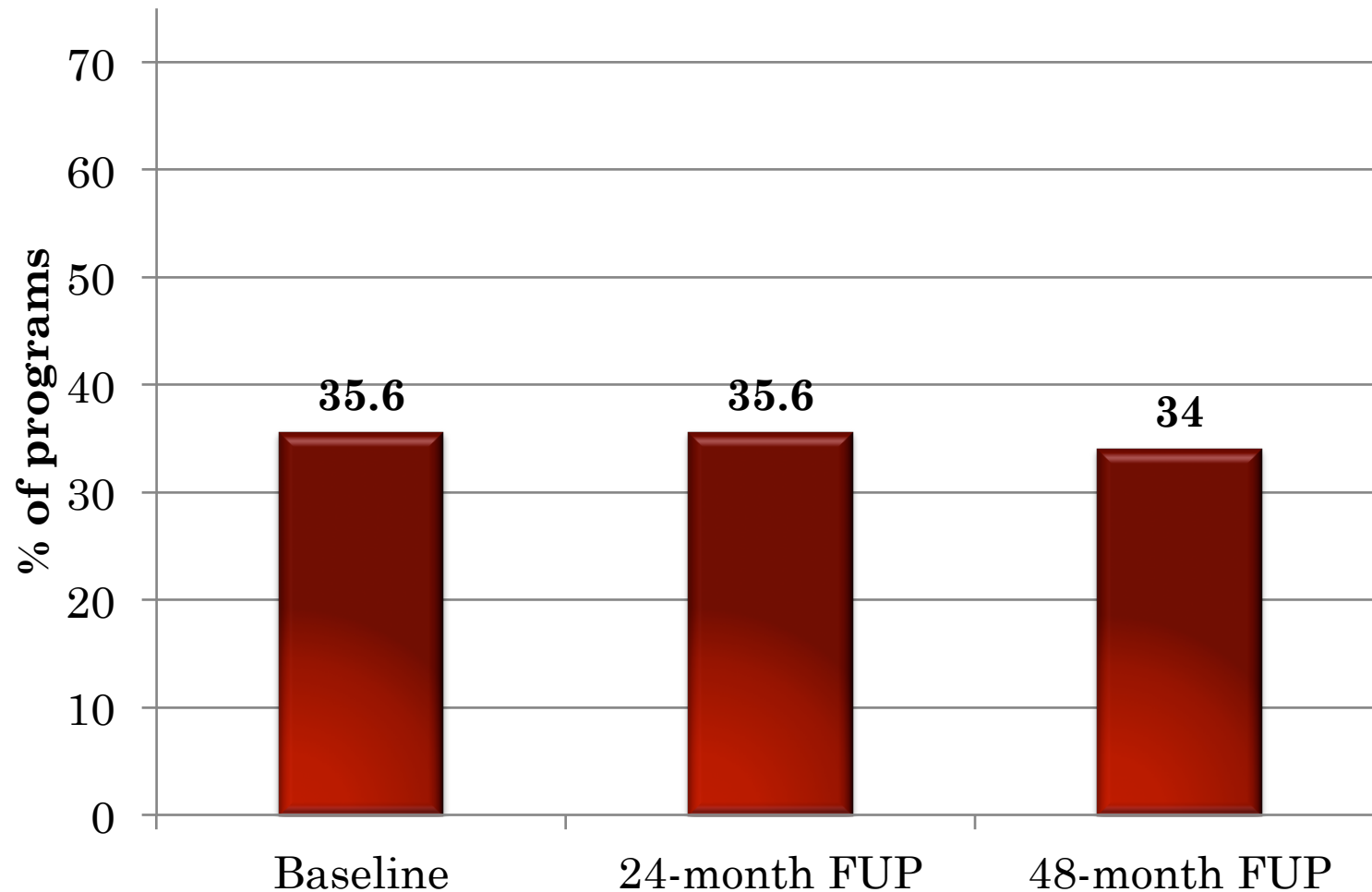




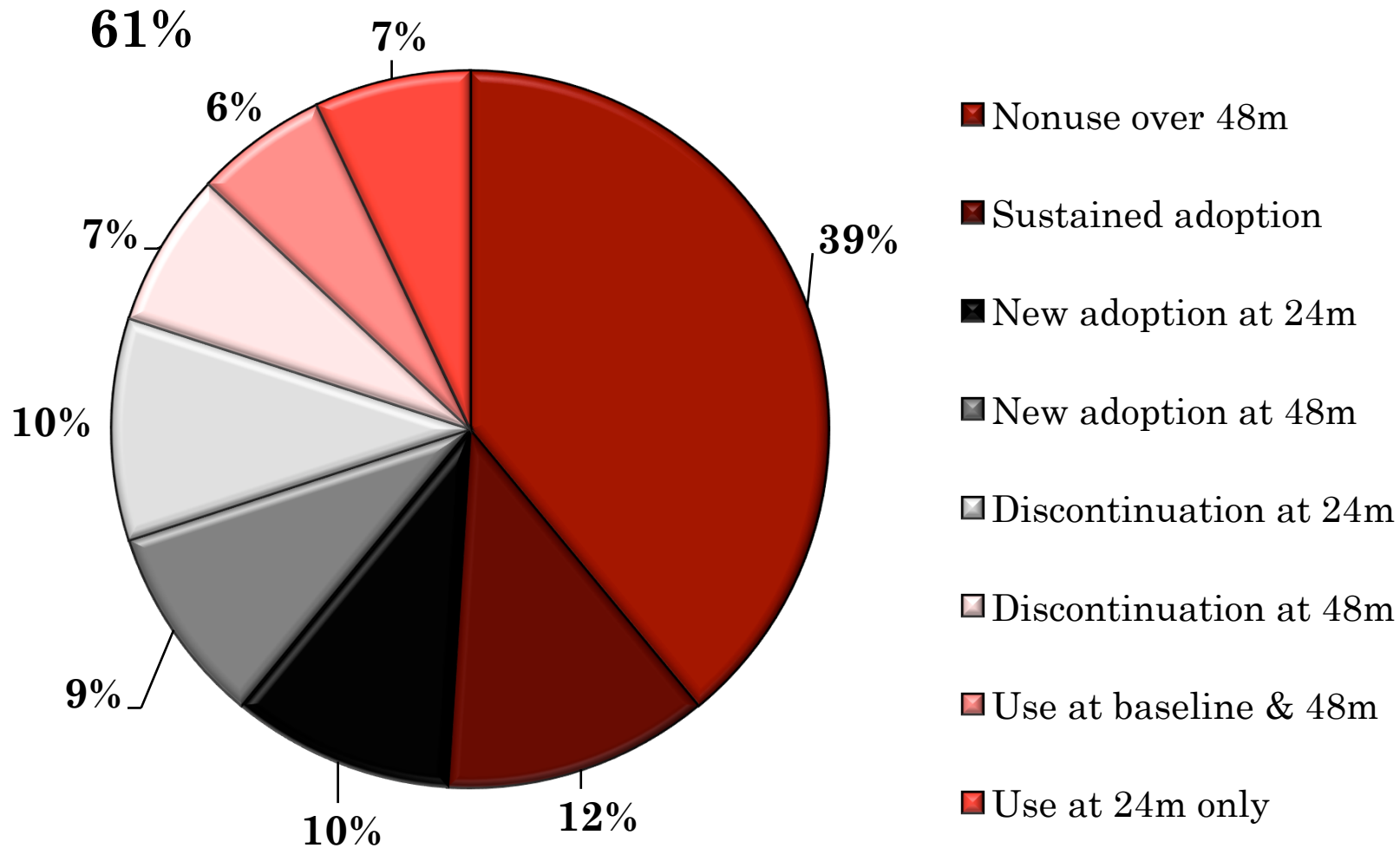
# ADOPTION OF MOTIVATIONAL INCENTIVES OVER 4 YEAR PERIOD IN THE CTN

*Roman, Abraham, Rothrauff, & Knudsen. (2010).  
Journal of Substance Abuse Treatment, 38(4):  
S44-S52.*

## ADOPTION OF MOTIVATIONAL INCENTIVES OVER 4 YEAR PERIOD IN THE CTN: CROSS-SECTIONAL DATA



## ADOPTION OF MOTIVATIONAL INCENTIVES OVER 4 YEAR PERIOD IN THE CTN: LONGITUDINAL DATA (N=124)

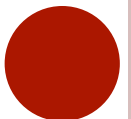




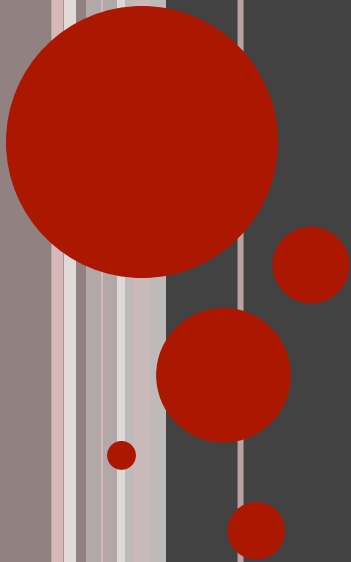
# BARRIERS TO MI/CM ADOPTION AMONG NON-ADOPTERS

*ROMAN, ABRAHAM, ROTHRAUFF, & KNUDSEN. (2010). JOURNAL OF SUBSTANCE ABUSE TREATMENT, 38(4): S44-S52.*

- Cost associated with implementation (32.5%)
- Lack of compatibility with program's philosophy(15.4%)
- Logistical issues such as competing demands, short length of stay, lack of a developed protocol for implementing MI/CM (11.4%)
- Perceived ineffectiveness of MI/CM with the program's population (10.6%)



# PARTICIPATION IN DISSEMINATION ACTIVITIES



# PARTICIPATION IN DISSEMINATION ACTIVITIES

<b>In the past year, have you and your staff...</b>	<b>% (N)</b>
<b>Provided information to the state legislature or legislative committees about evidence-based treatment practices (EBPs) for substance abuse treatment?</b>	<b>35.9% (71)</b>
<b>Provided information to county and/or local governments related to EBPs?</b>	<b>44.4% (88)</b>
<b>Participated in state/local taskforces or workgroups working on issues related to EBPs?</b>	<b>45.5% (90)</b>
<b>Interacted with the SSA or State Methadone Authority on issues related to EBPs?</b>	<b>40.9% (81)</b>
<b>Engaged in discussions with third-party payers and other purchasers of substance abuse treatment services about EBPs?</b>	<b>31.3% (62)</b>

# PARTICIPATION IN DISSEMINATION ACTIVITIES, CONT.

<b>Thinking about the past year...</b>	<b>% (N)</b>
<b>Has this CTP organized or led training sessions for other treatment providers about EBPs?</b>	<b>39.9% (79)</b>
<b>Provided technical assistance to treatment organization that was trying to adopt an EBP?</b>	<b>18.7% (37)</b>
<b>Disseminated information specifically about the CTN's activities to other providers?</b>	<b>29.3% (58)</b>
<b>Presented information about EBPs to professional associations?</b>	<b>27.3% (54)</b>
<b>Contributed to the development of journal articles related to the CTN's activities?</b>	<b>21.7% (43)</b>
<b>Participated in the development of articles about addiction treatment for lay publications?</b>	<b>22.7% (45)</b>

# SUMMARY OF PLATFORM STUDY FINDINGS

- Successful adoption of buprenorphine in the CTN
- Greater adoption of EBPs in CTN versus non-CTN treatment programs
- Overall importance of research network in promoting adoption of EBPs



The left side of the slide features a series of vertical stripes in various shades of gray and white. Overlaid on these stripes are several red circles of different sizes, arranged in a cluster that tapers towards the bottom.

# USING THE CTN AS A PLATFORM TO STUDY THE COUNSELING WORKFORCE

# THREE STRAINS OF RESEARCH ON CTN COUNSELORS

- Attitudes toward evidence-based practices
  - Buprenorphine
  - Motivational incentives
- Implications of Research Involvement for Employee Retention
- Role of Clinical Supervision in Reducing Emotional Exhaustion and Turnover Intention



# 1. ATTITUDES TOWARD BUPRENORPHINE

KNUDSEN, DUCHARME, & ROMAN. (2007). *AMERICAN JOURNAL ON ADDICTIONS*, 16, 365-371.

- A potential benefit of the CTN is that counselors may learn about EBPs and become more supportive of them
- We asked: Do counselors working in CTPs have more positive attitudes toward buprenorphine?
- We compared CTN counselors to large samples of counselors working in non-CTN programs





# KEY FINDINGS

KNUDSEN, DUCHARME, & ROMAN. (2007). *AMERICAN JOURNAL ON ADDICTIONS*, 16, 365-371.

- There were significant differences in perceived acceptability of buprenorphine between counselors in the CTN and counselors outside the CTN
- These differences were explained by:
  - *Receipt of training* about buprenorphine
  - *Implementation* of buprenorphine in the program
- CTN counselors were much more likely to have received training and to work in a program that had implemented buprenorphine



## 2. ATTITUDES TOWARD VOUCHER BASED MOTIVATIONAL INCENTIVES (VBMI)

*DUCHARME, KNUDSEN, ABRAHAM, AND ROMAN (2010)., THE AMERICAN JOURNAL ON ADDICTIONS, 19(6), 496-503.*

- Are counselors' attitudes toward voucher based motivational incentives influenced by direct and/or indirect exposure to VBMI via participation in the CTN?
- Matched sample of CTN programs and a nationally representative sample of public sector treatment programs (2004-2006)



# KEY FINDINGS

*DUCHARME, KNUDSEN, ABRAHAM, AND ROMAN (2010)., THE AMERICAN JOURNAL ON ADDICTIONS, 19(6), 496-503.*

- A greater percentage of CTN counselors worked in programs currently using VBMI (39% versus 25%)
- CTN counselors reported receiving a significantly greater degree of training about VBMI
- Most counselors believed they had sufficient knowledge to rate acceptability of VBMI
  - However, counselors rated VBMI as the least acceptable behavioral therapy for the treatment of addiction clients



# THE IMPORTANCE OF CTN AFFILIATION & TRAINING

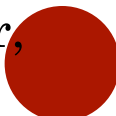
*DUCHARME, KNUDSEN, ABRAHAM, AND ROMAN (2010)., THE AMERICAN JOURNAL ON ADDICTIONS, 19(6), 496-503.*

- Counselors working in a ***CTN program*** and those who received ***specific VBMI training*** were more likely to endorse VBMI
- Receipt of specific ***training*** on VBMI was the strongest predictor of VBMI support
- Direct exposure to CTN's MI protocols was not a significant predictor of VBMI attitudes
- Findings suggest counselors' attitudes are influenced by indirect exposure to affirmative findings generated by CTN study protocols



### 3. RESEARCH INVOLVEMENT AND TURNOVER INTENTION

*KNUDSEN, DUCHARME, & ROMAN. (2007). JOURNAL OF SUBSTANCE ABUSE TREATMENT, 33, 211-217.*

- The CTN offered the unique opportunity to study how counselors' involvement in protocols may shape their intentions to quit
  - For the subset of counselors who were directly involved in a protocol, we asked about three dimensions:
    - **Research-related stressors** (e.g. greater administrative burdens, greater workload & emotional stress)
    - **Organizational benefits** of the research (e.g. enhanced job performance, improved client retention)
    - **Organizational costs** of the research (e.g. increased turnover, reduced client retention)
- 

# KEY FINDINGS

KNUDSEN, DUCHARME, & ROMAN. (2007). *JOURNAL OF SUBSTANCE ABUSE TREATMENT*, 33, 211-217.

- Counselors who reported greater ***research-related stressors*** also reported greater turnover intention ( $b = .22$ )
- Counselors who reported greater ***organizational benefits*** from the research reported lower levels of turnover intention ( $b = -.24$ )
- Perceived organizational costs were not associated with turnover intention



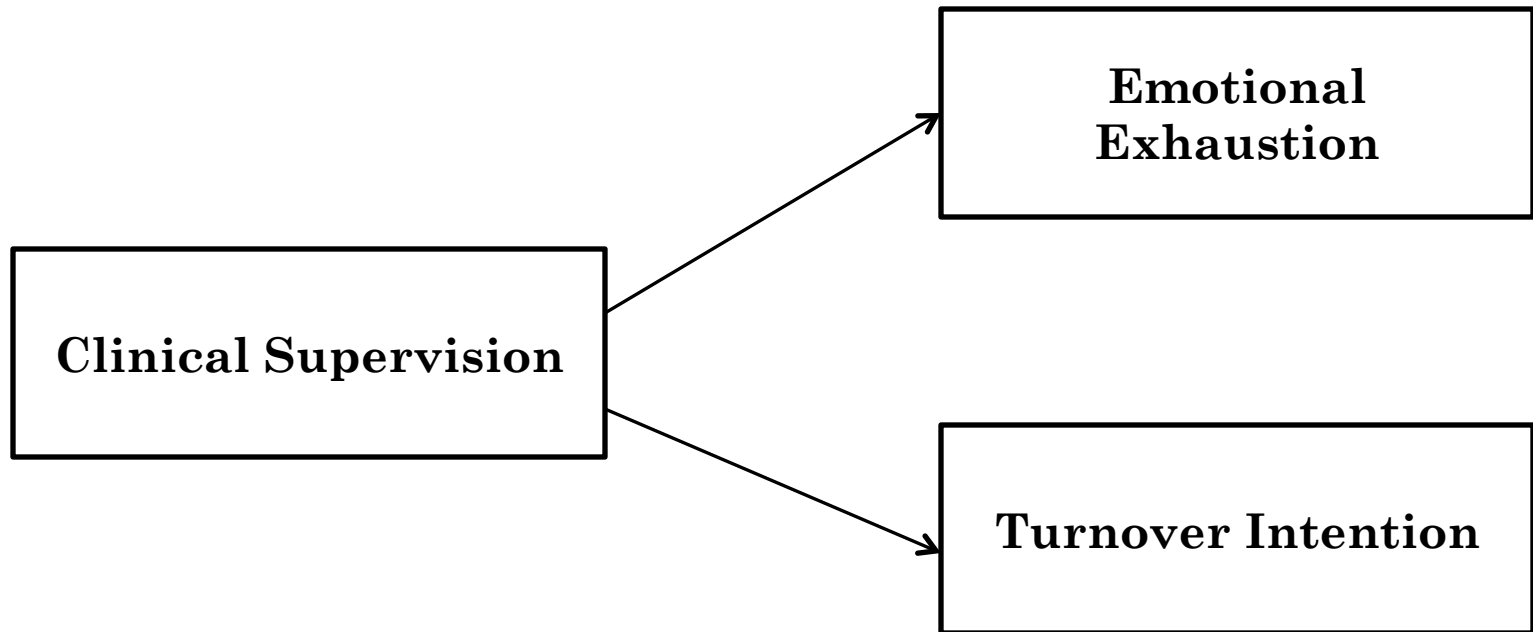
# 4. THE IMPORTANCE OF CLINICAL SUPERVISION

*KNUDSEN, DUCHARME, AND ROMAN. (2008). JOURNAL OF SUBSTANCE ABUSE TREATMENT, 35, 387-395.*

- Few studies had examined the role of clinical supervision in reducing emotional exhaustion and turnover intention in the counseling workforce
- Even less was known about mediating factors between clinical supervision and these outcomes
- We examined data from 823 counselors who worked in CTPs



# **CLINICAL SUPERVISION WAS NEGATIVELY ASSOCIATED WITH EMOTIONAL EXHAUSTION & TURNOVER INTENTION**





# MEDIATORS OF THESE RELATIONSHIPS

KNUDSEN, DUCHARME, AND ROMAN. (2008). *JOURNAL OF SUBSTANCE ABUSE TREATMENT*, 35, 387-395.

- These relationships were completely explained by three mediators
  - Job autonomy (power to make decisions that affect one's own job)
  - Procedural justice (procedures are fair in the organization)
  - Distributive justice (rewards are distributed fairly in the organization)
- Clinical supervision was strongly associated with these mediating variables
  - These three mediators were then related to emotional exhaustion and turnover intention



# ACKNOWLEDGEMENTS

We gratefully acknowledge the research support of the National Institute on Drug Abuse (Grant No. R01DA14482, R21DA020028, and R01DA013110), and the participation of community treatment programs affiliated with the CTN in this research study.

