



The CSAT Methamphetamine Treatment Project

**A Multi-site Trial of a Manualized Psychosocial
Protocol for the Treatment of
Methamphetamine Dependence**

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Project Goals:

- **To study the clinical effectiveness of the Matrix Model**
- **To compare the effectiveness of the Matrix model to other locally available outpatient treatments**
- **To establish the cost and cost effectiveness of the Matrix model compared to other outpatient treatments**
- **To explore the replicability of the Matrix model and challenges involved in technology transfer**

Study Design/Procedures

- Random assignment at 8 sites
- 16-week Matrix treatment or site-specific TAU
- Common assessment battery
- Administered: treatment intake, weekly during treatment, treatment discharge, 6-mos post-intake, and 12-mos post-intake

Treatment Sites

- **Billings, Montana**
- **Honolulu, Hawaii**
- **Concord, California**
- **Costa Mesa, California**
- **Hayward, California**
- **San Diego, California**
- **San Mateo, California**

Participants

- ✦ **150 participants recruited at each site**
- ✦ **Inclusion: 18+ yrs old with DSM-IV MA diagnosis (and used in last 30 days), give UA samples**
- ✦ **Exclusion: Severe med/psych condition, needing detox, in drug treatment in last 30 days**
- ✦ **Special Populations**
 - **Native Americans**
 - **Asian Americans**
 - **Drug Court**
 - **Pacific Islanders**
 - **Women**

Matrix Model

- Model originally developed in the early eighties in response to the cocaine epidemic and the high rates of meth use in San Bernardino County
- A written protocol was developed and funded by an SBIR grant through NIDA
- Model modified over time (6 months – 16 weeks)

Matrix Model

✦ *Key Elements*

- **Explicit treatment structure and expectations for patients**
- **Focus on retention through positive reinforcement**
- **Focus on reducing drug use through UA and breath-alcohol testing**
- **Therapist functions as a teacher/coach**
- **A positive, encouraging relationship – not confrontational**

Matrix Model

✦ *Key Elements (cont'd)*

- **Positive social reinforcement from therapists, other group members, and treatment exercises**
- **Time planning and scheduling**
- **Accurate information**
- **Cognitive Behavioral Therapy**
- **Family Involvement**
- **Self Help Involvement**

Treatment As Usual

- ✦ **Eight “treatment as usual” models**
- ✦ **Minnesota model, cognitive-behavioral, & psychodynamic**
- ✦ **Duration of intensive phase of treatment ranged from 8 weeks to 16 weeks**
- ✦ **Client contact per week ranged from 1 to 13 hours**

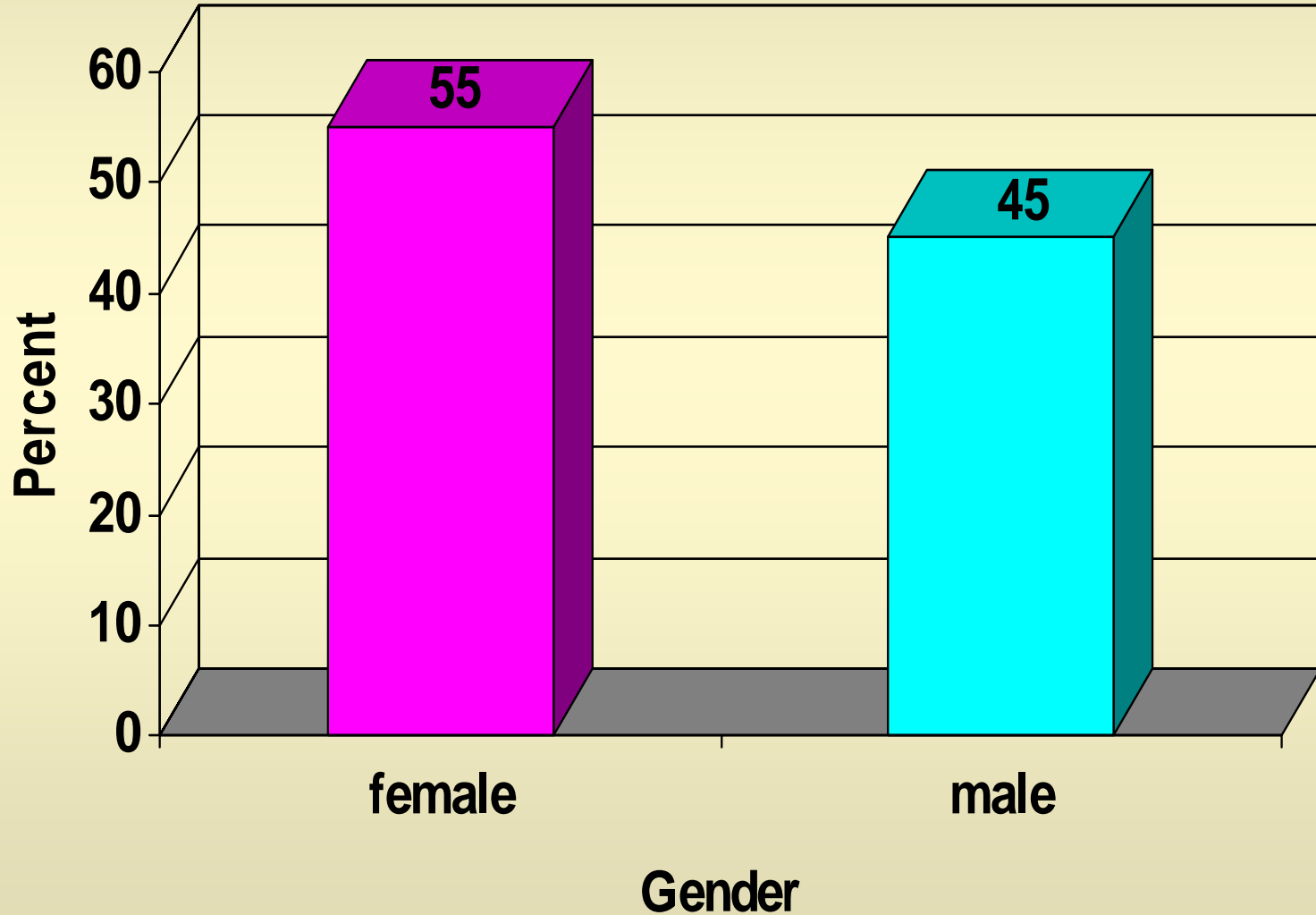
Study Measures

- **Brief Symptom Inventory**
- **Beck Depression Inventory**
- **Craving Rating**
- **Addiction Severity Index**
- **Domestic Violence Assessment**
- **HIV Risk Assessment**
- **Substance Use Inventory**
- **SF-36 Health Status Survey**
- **Treatment Services Review**
- **Treatment Tracking**
- **Treatment Termination Form**
- **Client Satisfaction Questionnaire**
- **Service Satisfaction Questionnaire**

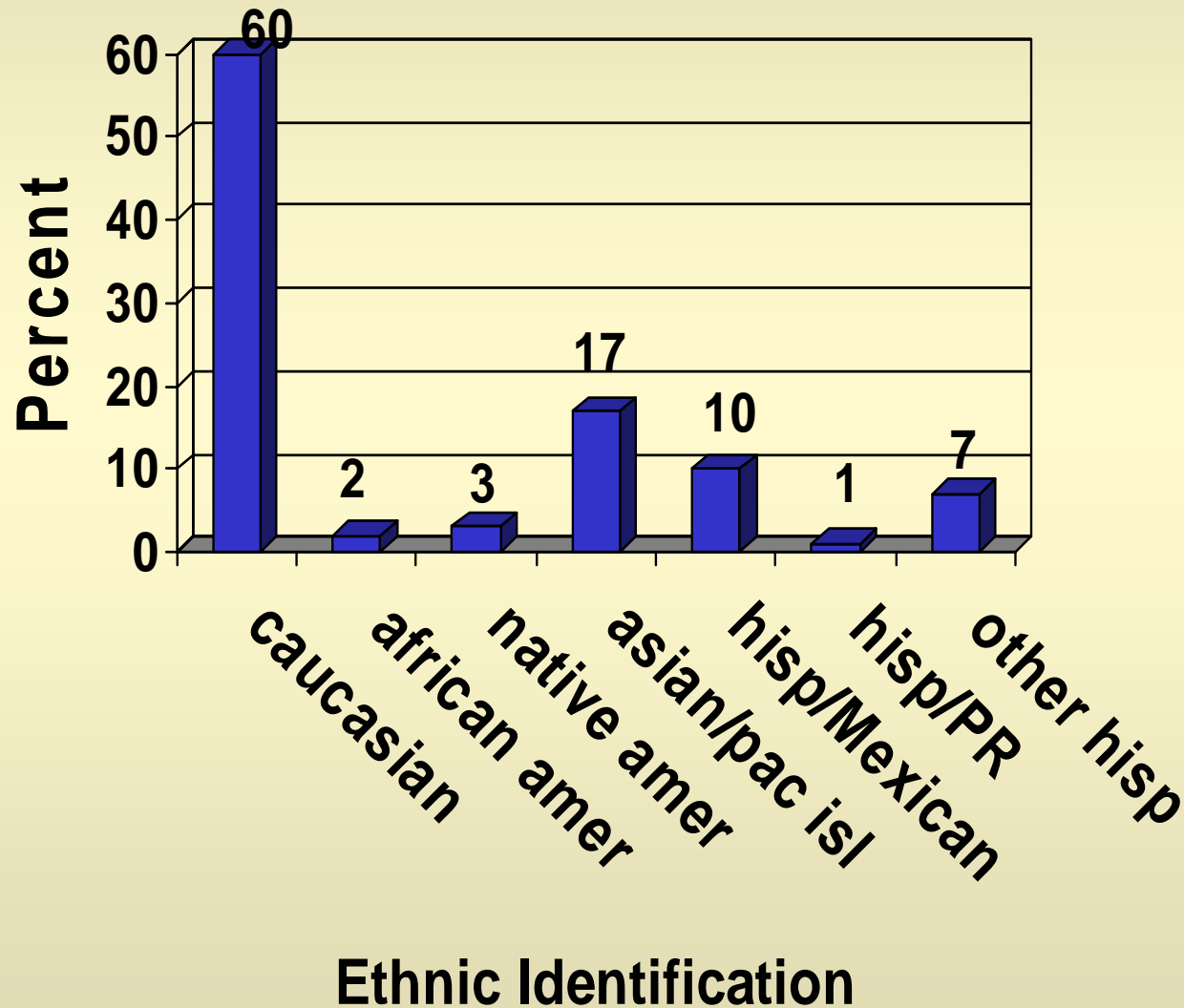
Baseline Demographics

Sample size (n)	1016
Age (mean)	32.84 years
Education (mean)	12.2 years
Monthly income (mean)	\$ 1073.83
Years of Meth use (mean)	7.5 years

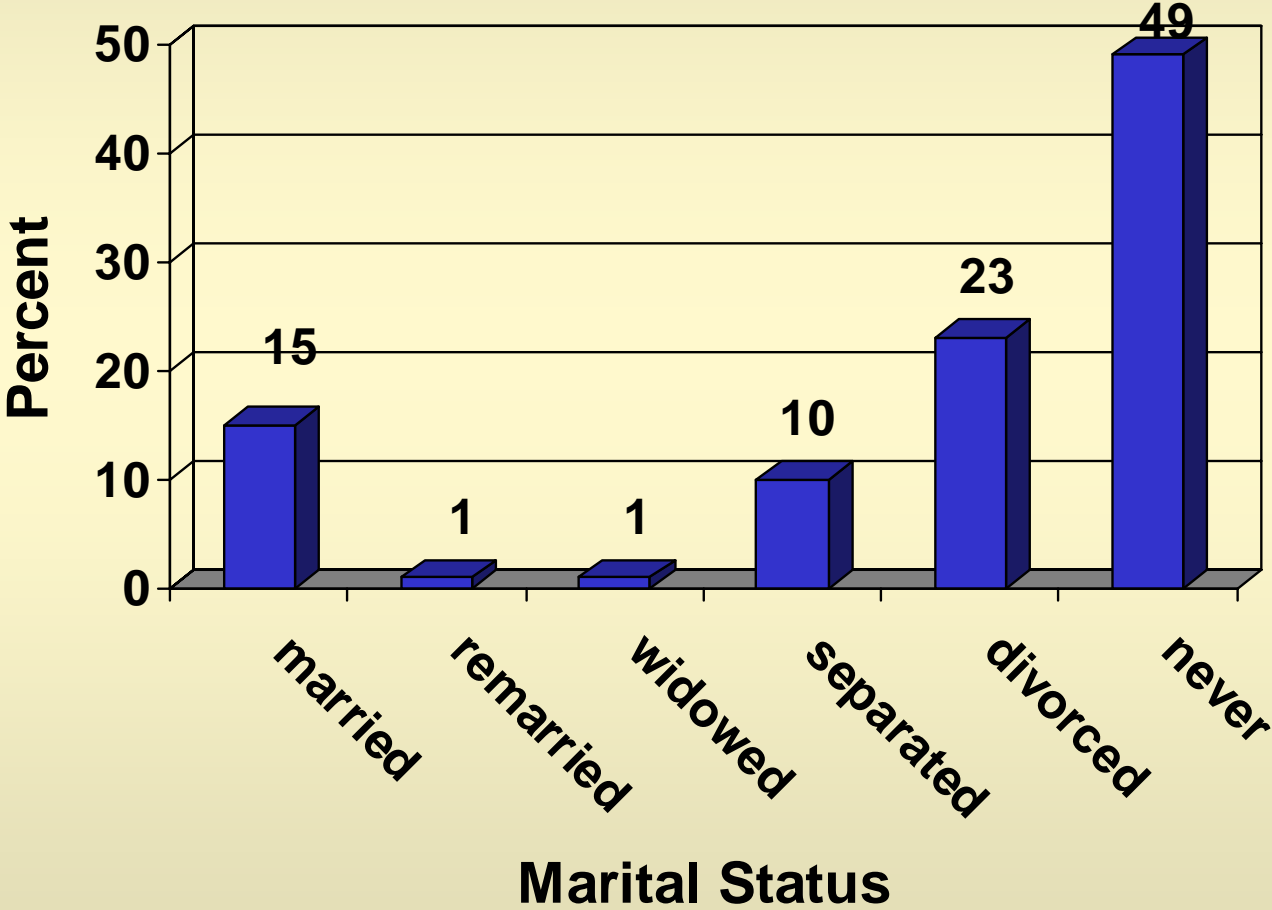
Gender Distribution of Participants



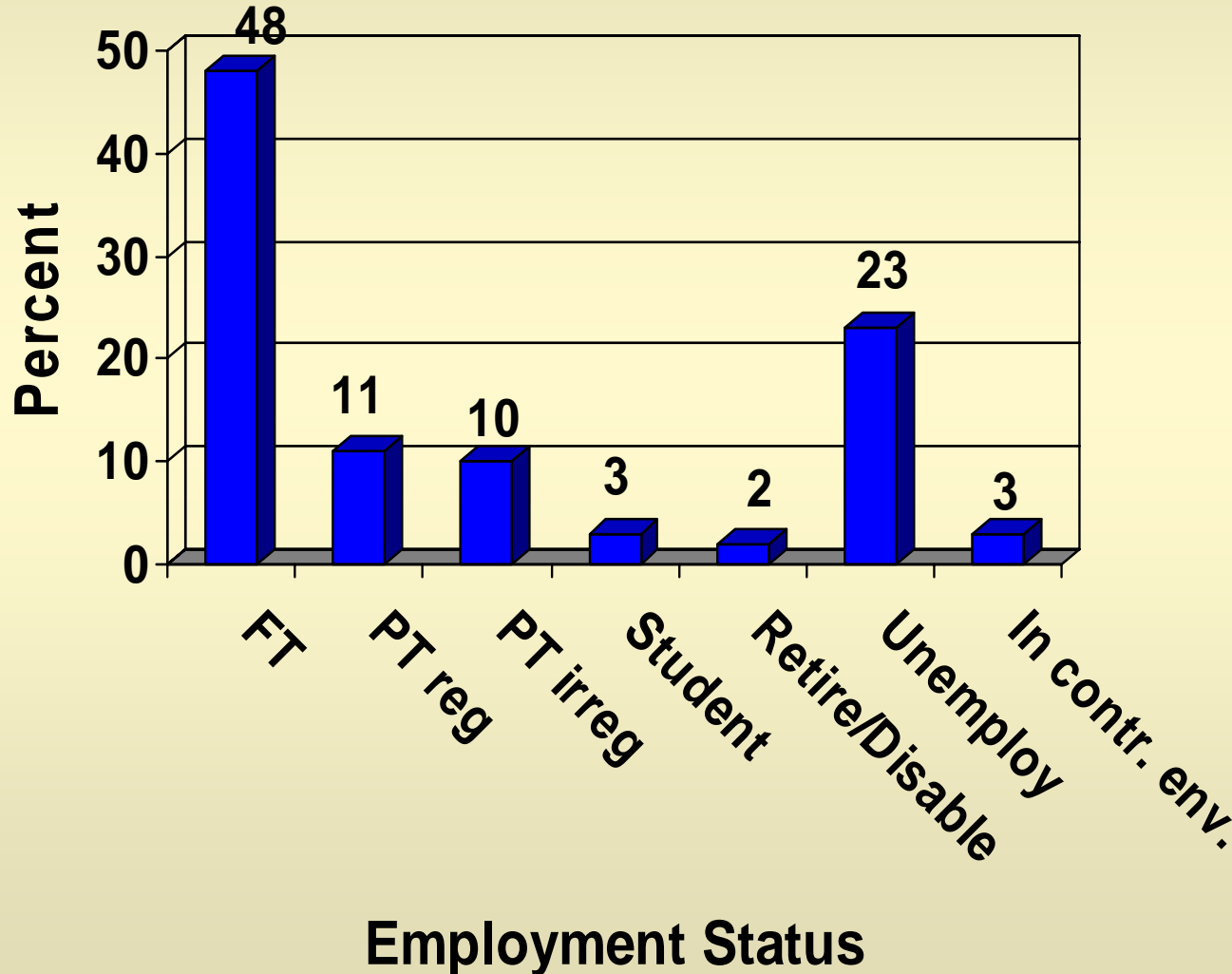
Ethnic Identification of Participants



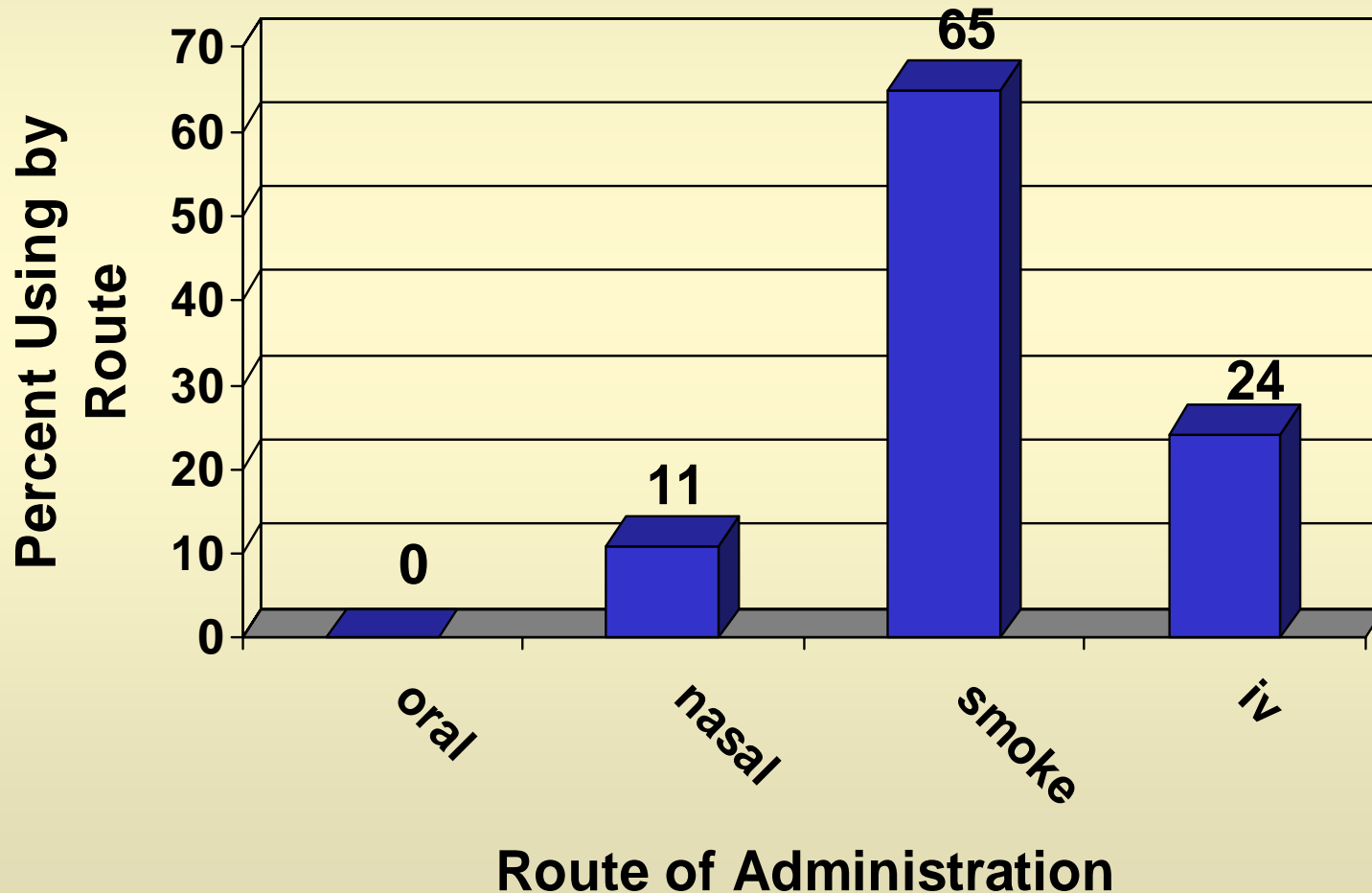
Marital Status of Participants

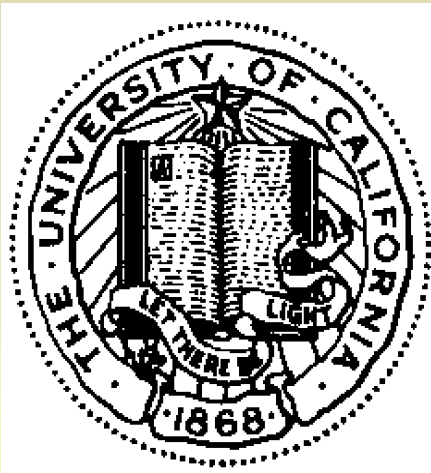


Employment Status of Participants



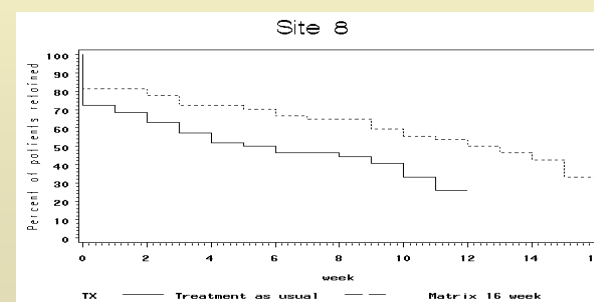
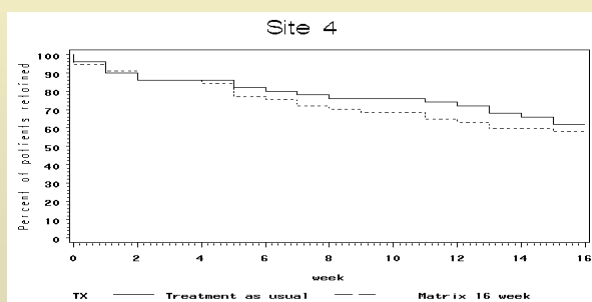
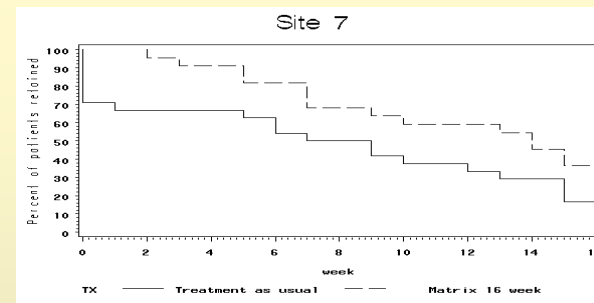
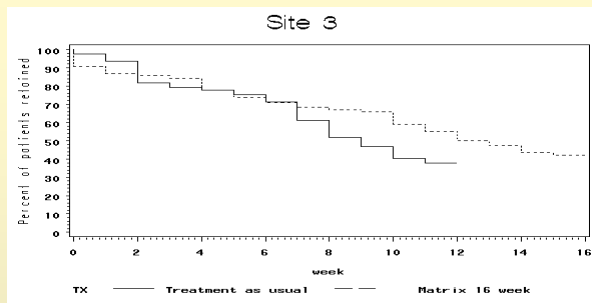
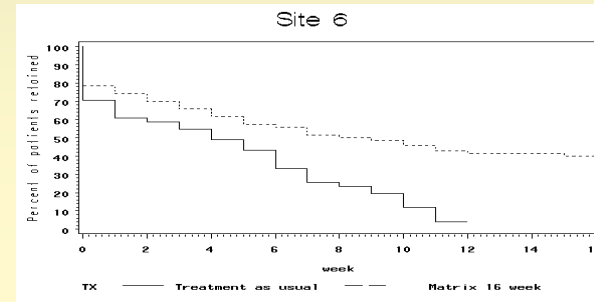
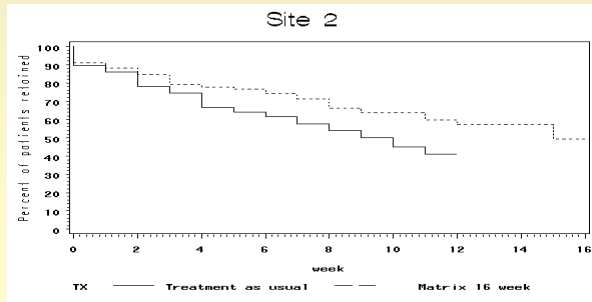
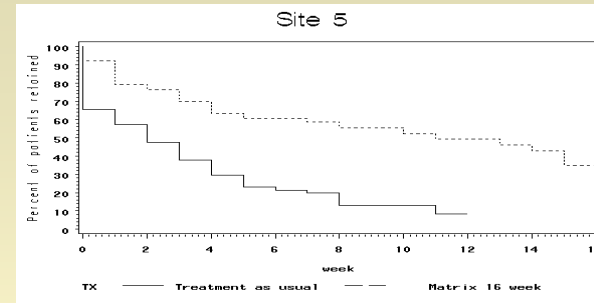
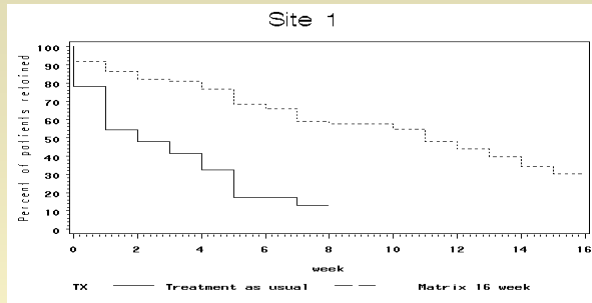
Route of Methamphetamine Administration



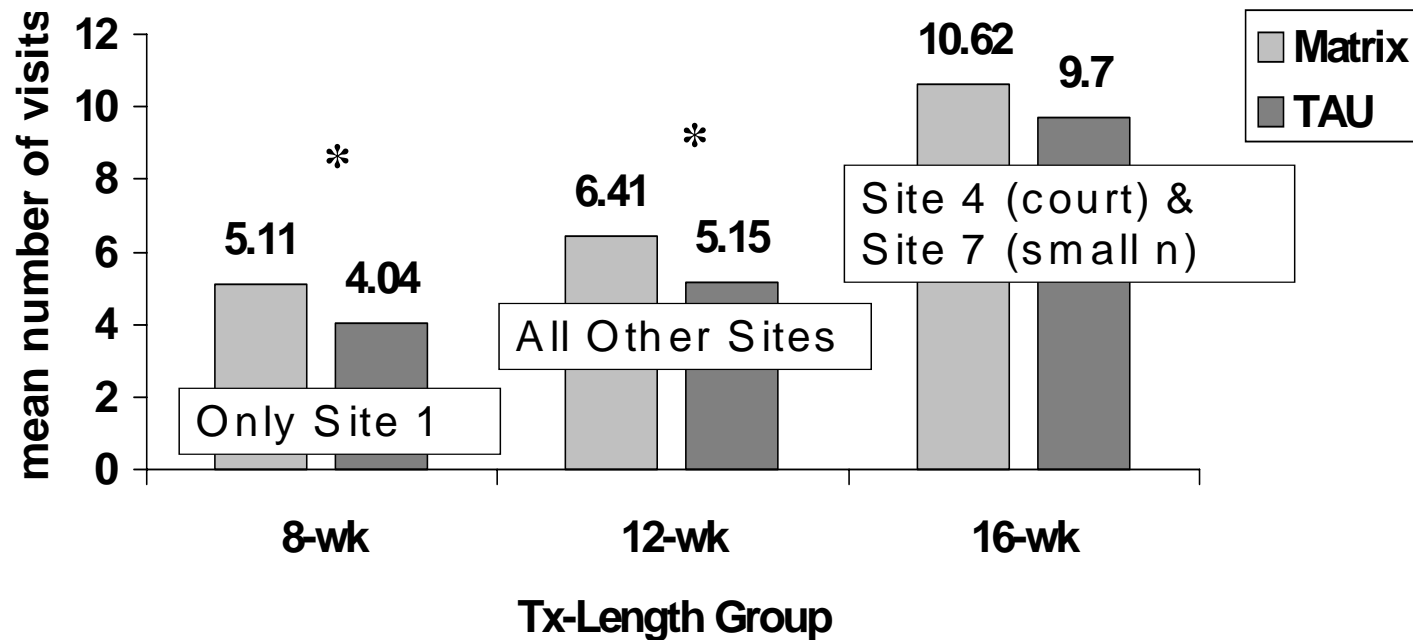


Findings Comparing Matrix Model and Treatment-As-Usual

Participant retention throughout treatment, by site and treatment group

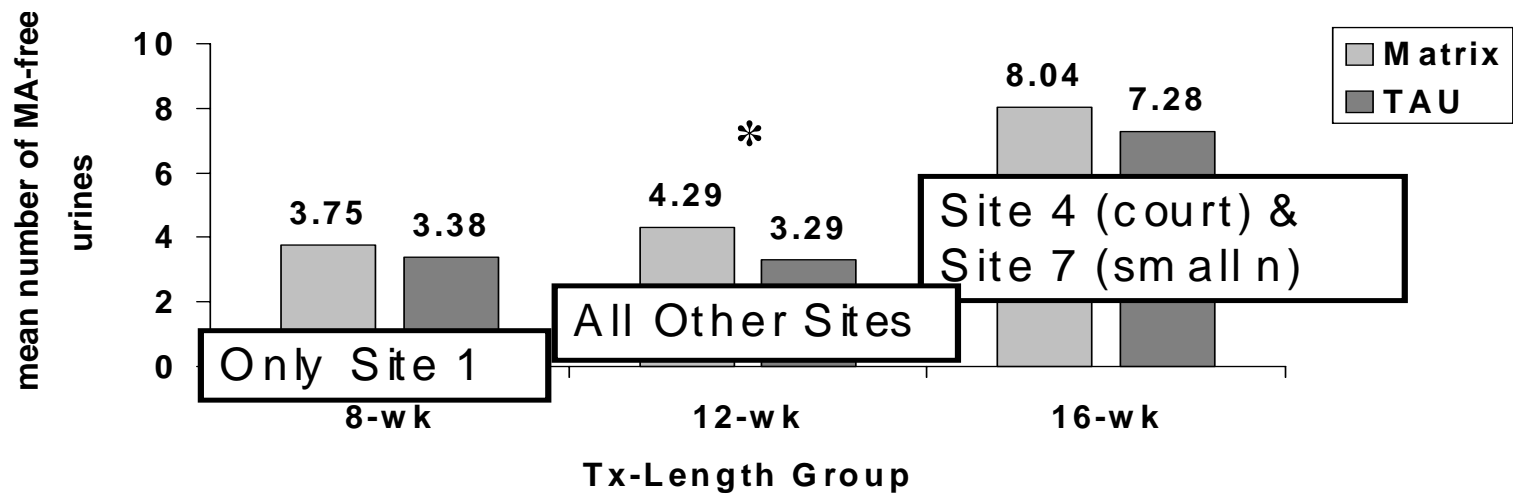


Mean number of weekly data visits attended, by treatment length and treatment group (Matrix group data truncated to the length of TAU)



*Statistically significant two-group t-test, $p < 0.05$.

Mean number of MA-free urine samples, by treatment length and treatment group (Matrix group data truncated to the length of TAU)



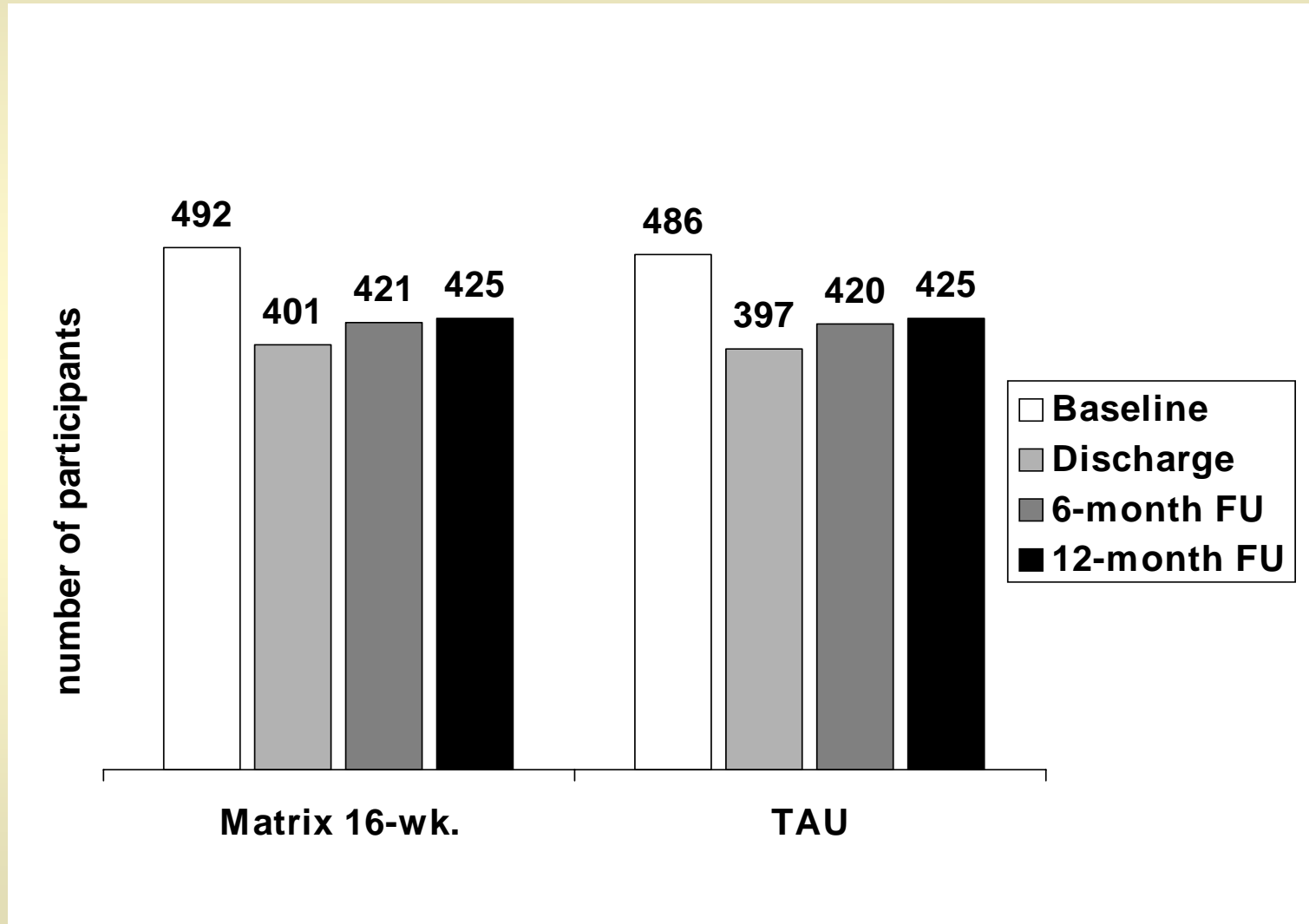
*Statistically significant two-group t-test, $p < 0.05$.

Percent completing treatment, by group

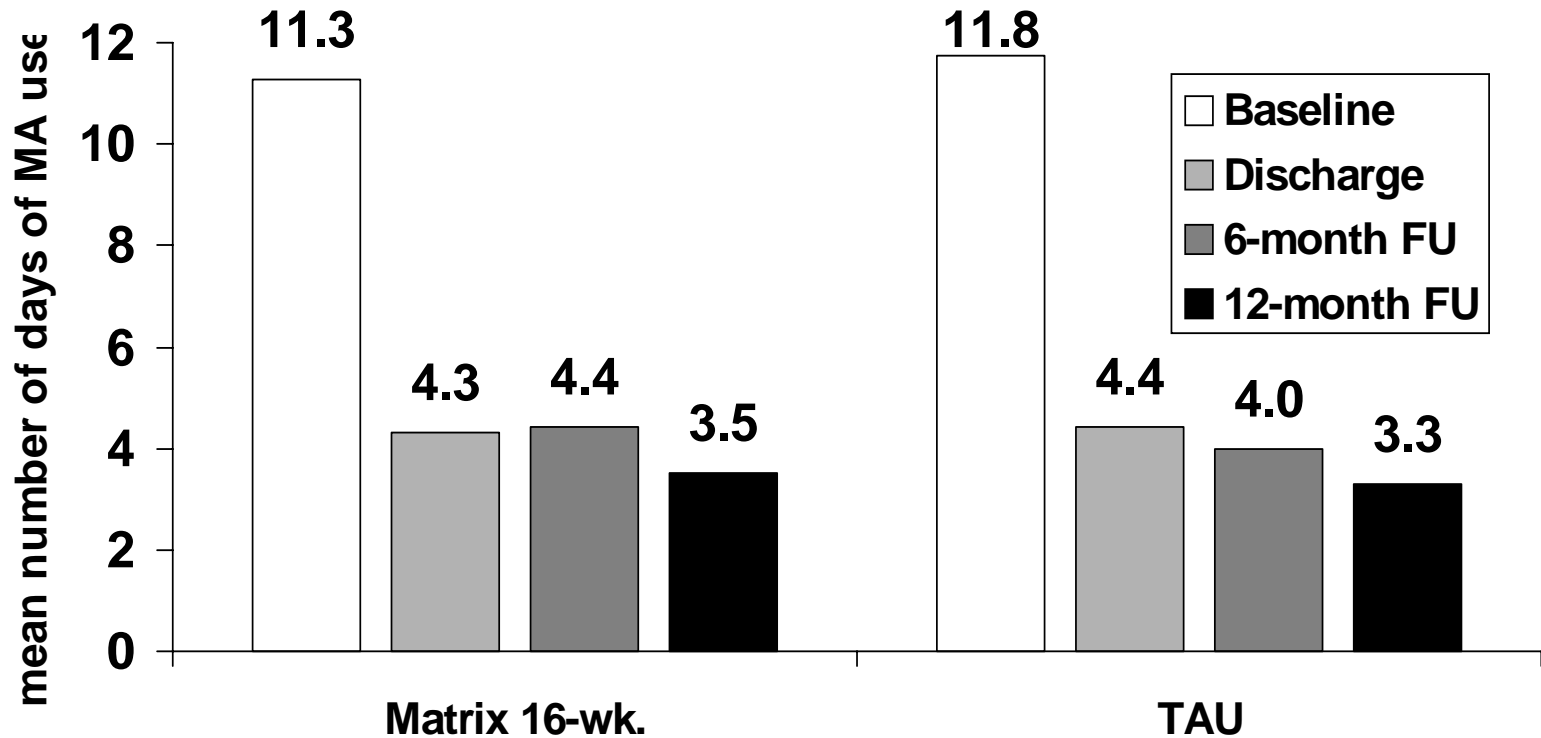
	Matrix	TAU
Completer	40.85	34.16
Not Completer	59.15	65.84

$\chi^2=4.68, p=0.031$

Overall participant follow-up by treatment condition and time point



Participant self-report of MA use (number of days during the past 30) at baseline, discharge, 6-month and 12-month follow-up, by treatment condition



Abstinence Rates: % Reporting No Meth Use (past 30 days)

	Matrix	TAU
Discharge	59%	57%
6 Month Follow-up	63%	61%
12 Month Follow-up	68%	69%

Urinalysis Results: % Meth Negative

	Matrix	TAU
Discharge	69%	66%
6 Month Follow-up	66%	68%
12 Month Follow-up	70%	73%

MTP Study Conclusions

- A multisite evaluation of a research-based intervention can be conducted in community sites during a 3 year period.
- Six research-naïve sites and 2 experienced sites successfully were trained and conducted all necessary research activities for a complex clinical trial.
- A complex psychosocial treatment protocol was successfully replicated at 8 sites over a 3 year period.
- Over 1000 MA-Users received free treatment.

MTP Study Conclusions

- Treatment for MA dependence associated with improvements in many domains including drug use, mood, and income
 - Matrix treatment results in longer retention, more sessions attended, more treatment completers, more MA-negative UAs, longer periods of MA abstinence
- * Except for drug court site

MTP Study Conclusions

- Outcomes at discharge and follow-up demonstrated comparable results between Matrix and TAU
- Program compliance associated with superior urinalysis results at discharge and follow-up

MTP Study Conclusions

- The design of multi-site studies has to carefully consider priorities among the following issues:
 - Priority of testing the null hypothesis of the primary study outcomes
 - Flexibility to accommodate all investigators individual site priorities and site program variability