

Promoting Awareness of Motivational Incentives

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NIDA Blending Conference

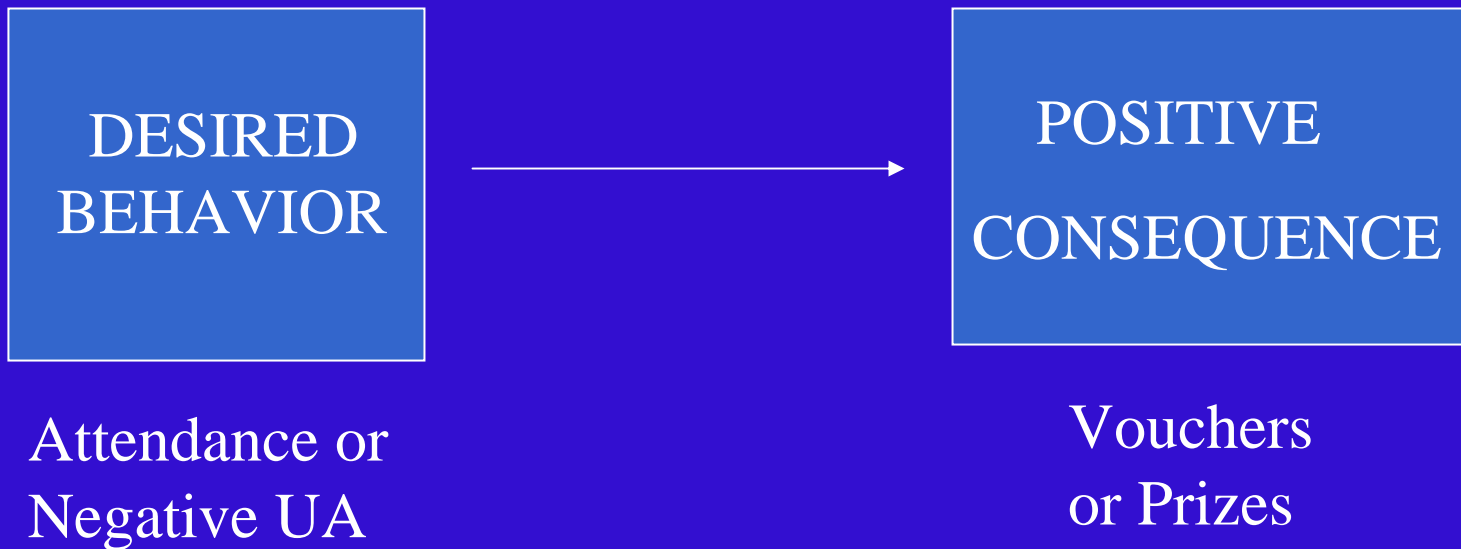
Cincinnati, Ohio

June 2, 2008

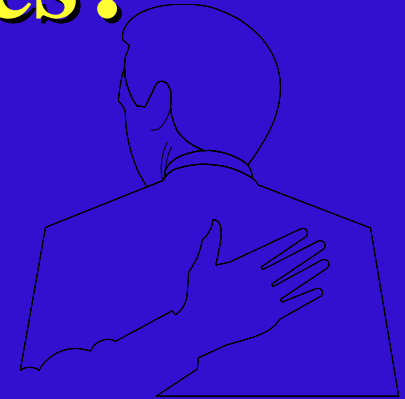
Motivational Incentives

- What is it? Why adopt this intervention?
- Research evidence for implementation choices
 - Abstinence vs attendance as target behaviors
 - Vouchers vs prize draws as reinforcement system
- Overcoming implementation barriers

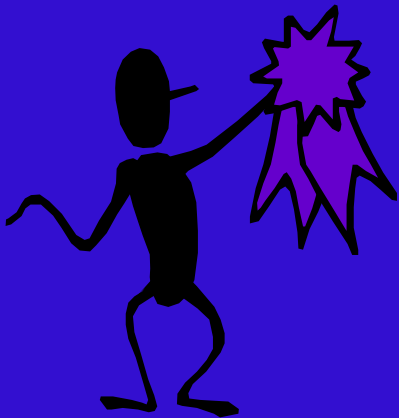
Changing Behavior via Consequences



Why Adopt Motivational Incentives?



**Making treatment a more
attractive and engaging option
through positive reinforcement of
behavior change**



Why Adopt Motivational Incentives?

- Clients like it
 - Acknowledgement of success is highly valued
 - Counters ambivalence; improves engagement
- Counselors like it
 - Focus on improvement; celebrate success
 - Happier and more engaged clients
- Funders like it
 - Evidence-based practice that improves treatment outcomes

Behavioral Targets

- Abstinence from drugs and alcohol
 - focus of most research
- Attendance at scheduled therapy sessions
 - focus of most adoption efforts
- Goal attainment
 - Reinforcement of individualized concrete goals
 - Use for those whose attendance & abstinence are stable

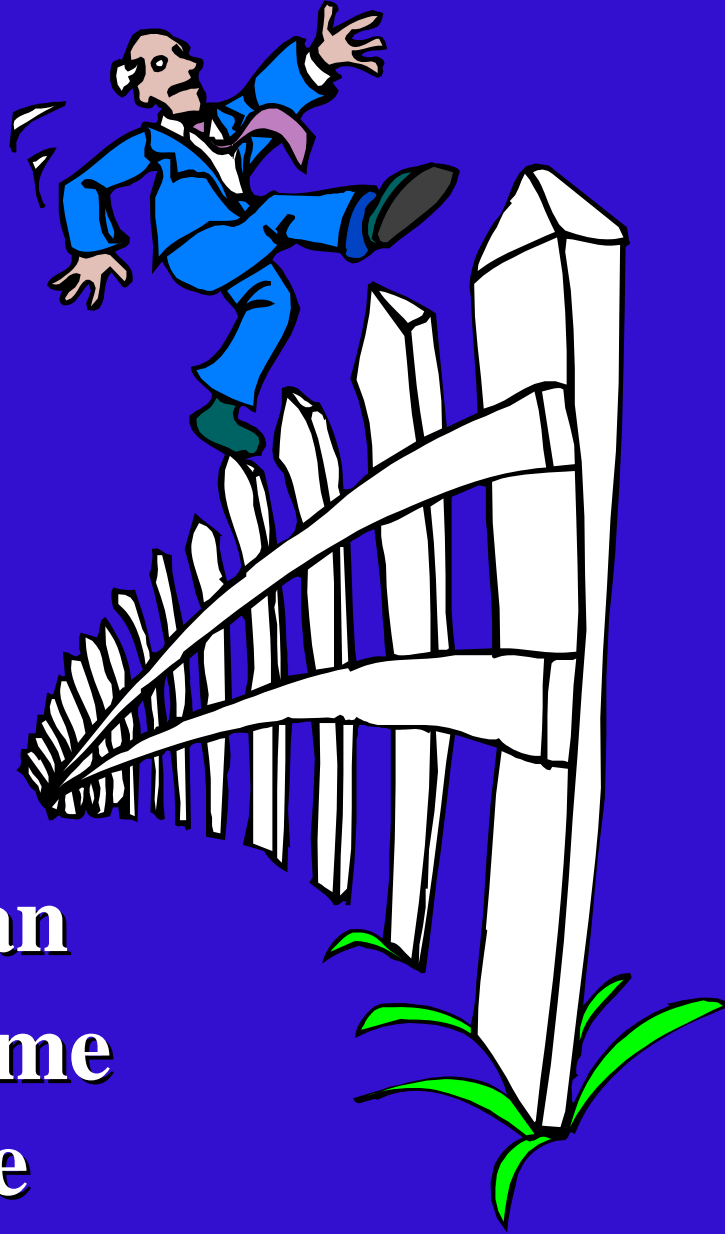
Problem is the Allure of Immediate Drug Reinforcement



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**Incentives can
help overcome
ambivalence**



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Abstinence Benefits

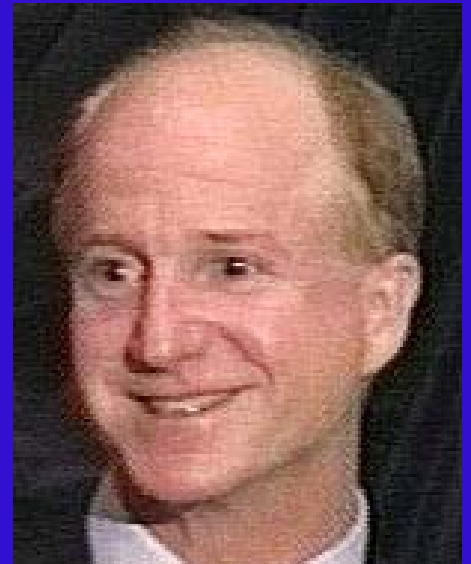
- Keystone of recovery
- Primary outcome measure
- Allows for work on positive life style changes
- During-treatment abstinence predicts long-term outcomes

Abstinence Incentive Methods

- Use negative urine as objective evidence
- Collect urines frequently
- Test on-site (immediate feedback)
- Provide immediate rewards for negative UA
 - Vouchers or drawing for prizes

Voucher Reinforcement abstinence initiation and maintenance in cocaine abusers

- Principle of alternative reinforcement:
 - Making abstinence today a more attractive option
- Points earned for cocaine negative urine results
 - Escalating schedule of point earnings
 - Trade in points for goods
 - \$1000 available over 3 months



Steve Higgins

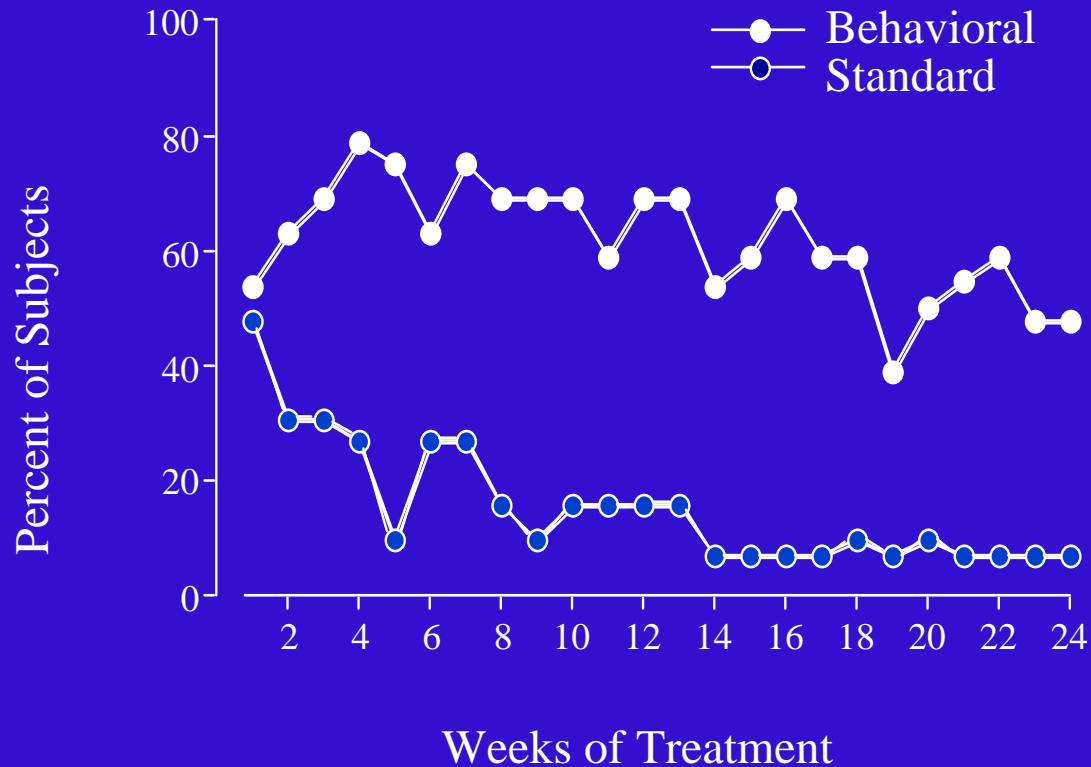
Points Escalate with Drug-Free Test Results & Reset with Positives



Voucher Incentives in Outpatient Drug-free Treatment

Higgins et al. Am. J. Psychiatry, 1993

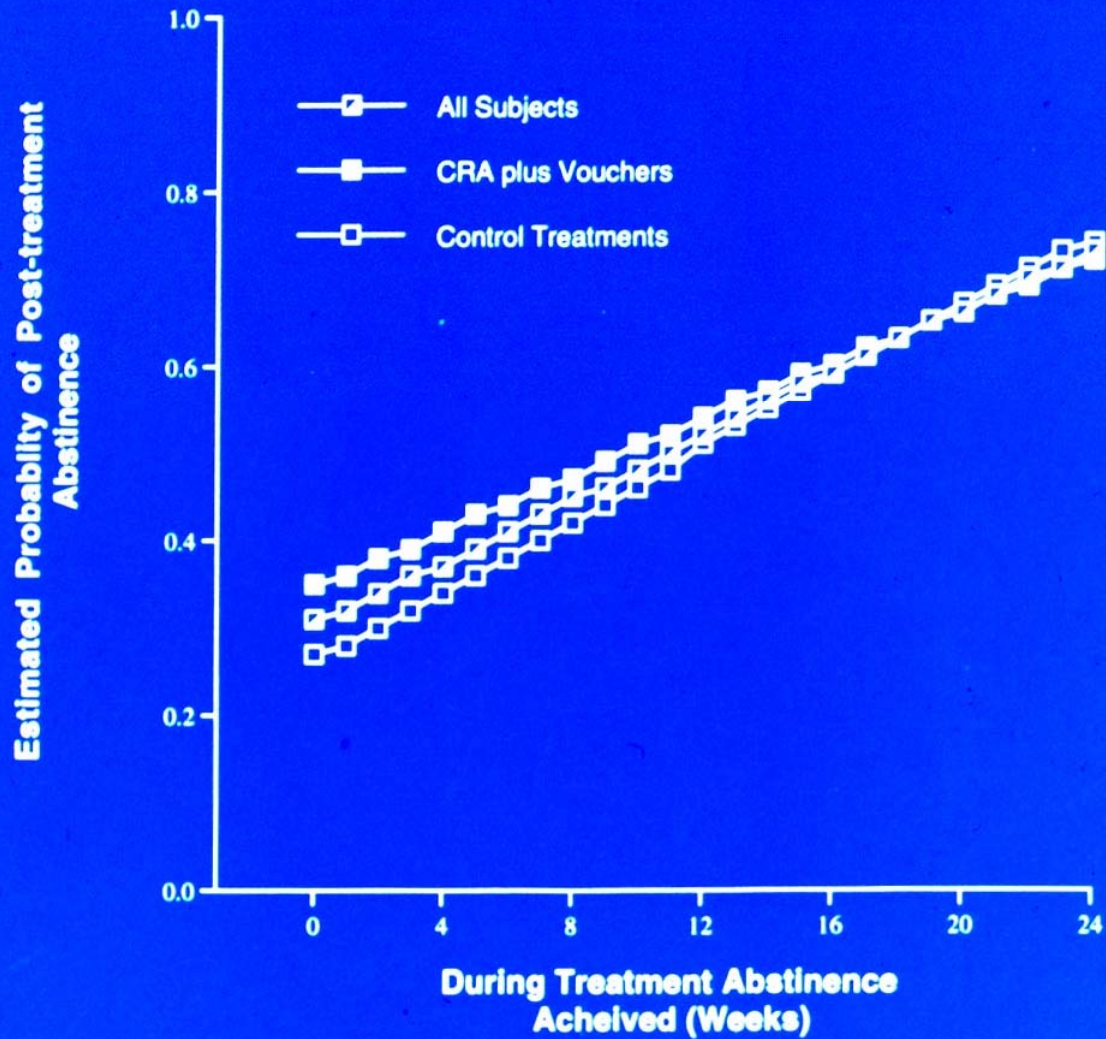
Cocaine negative urines



Why is Prolonged Abstinence Important?

- Duration of abstinence during treatment (no matter how achieved) predicts long-term outcomes

Abstinence At 12-month Assessment



Post- and During-Treatment Abstinence are Related

	Subjects abstinent at 1 year
During Tx abstinence	
≥ 12 weeks	64%
< 12 weeks	36%

From Higgins et al., 2000

Voucher Reinforcement

- Voucher reinforcement increases number of patients with long durations of during-treatment abstinence
- Elegantly incorporates behavioral principles designed to initiate & sustain abstinence
- Demonstrated efficacy in controlled trials
- Costs are high as originally designed

Nancy Petry's Fishbowl: Intermittent schedule of reinforcement

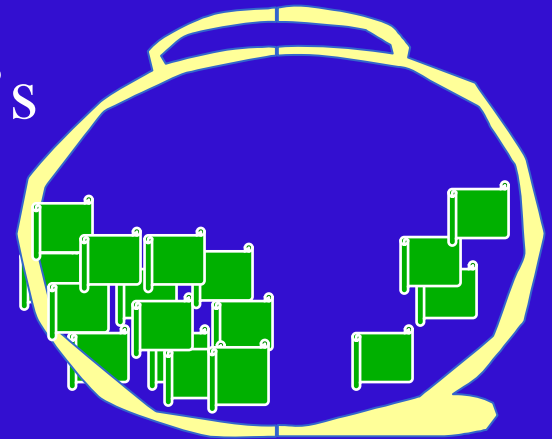
QuickTime™ and a
Photo - JPEG decompressor
are needed to see this picture.

For cost reduction in community clinic settings

Fishbowl Method Reduces Cost

Incentive = draws from a bowl

- Draws earned for each negative urine or BAC
- Number of draws can escalate
- Resets can be given for positive UA's

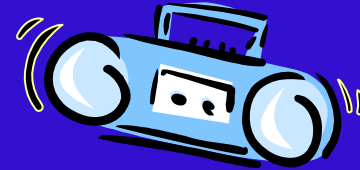


Half the slips are winners

Win frequency inversely related to cost



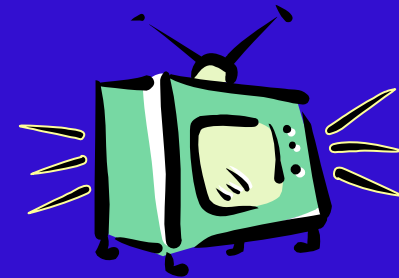
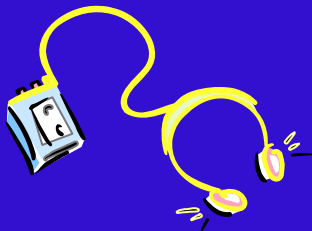
➤ largest chance of winning a small \$1 prize



➤ moderate chance of winning a large \$20 prize



➤ small chance of winning a jumbo \$100 prize



CTN MIEDAR Study

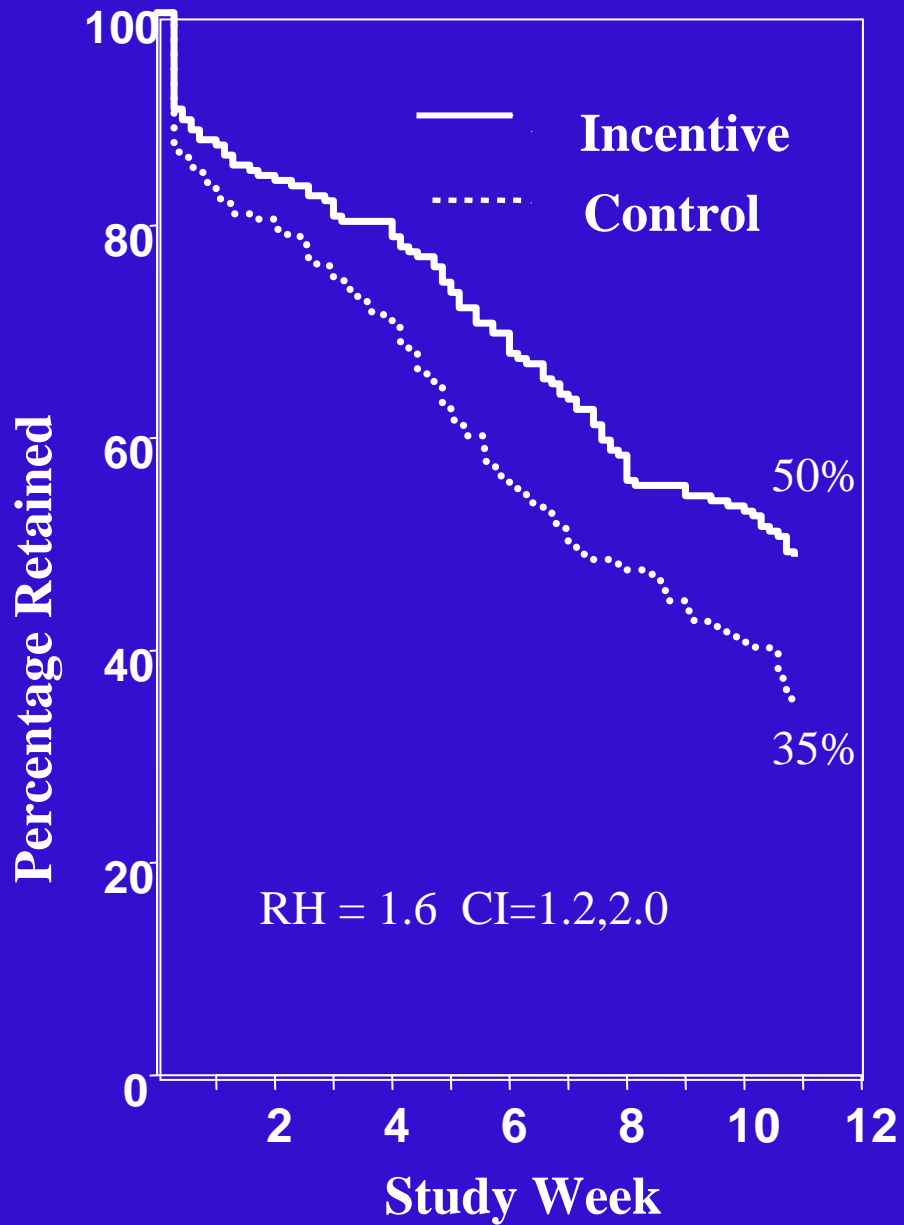
- Stimulant abusers randomly assigned to usual care with or without abstinence incentives
 - 415 psychosocial counseling
 - 388 methadone maintained
- Drug-free urines earn draws from an abstinence bowl during a 3-month study
- Negative for cocaine, methamphet and alcohol ---> escalating draws
 - Also negative for opiates, THC ---> bonus draws

Total Earnings

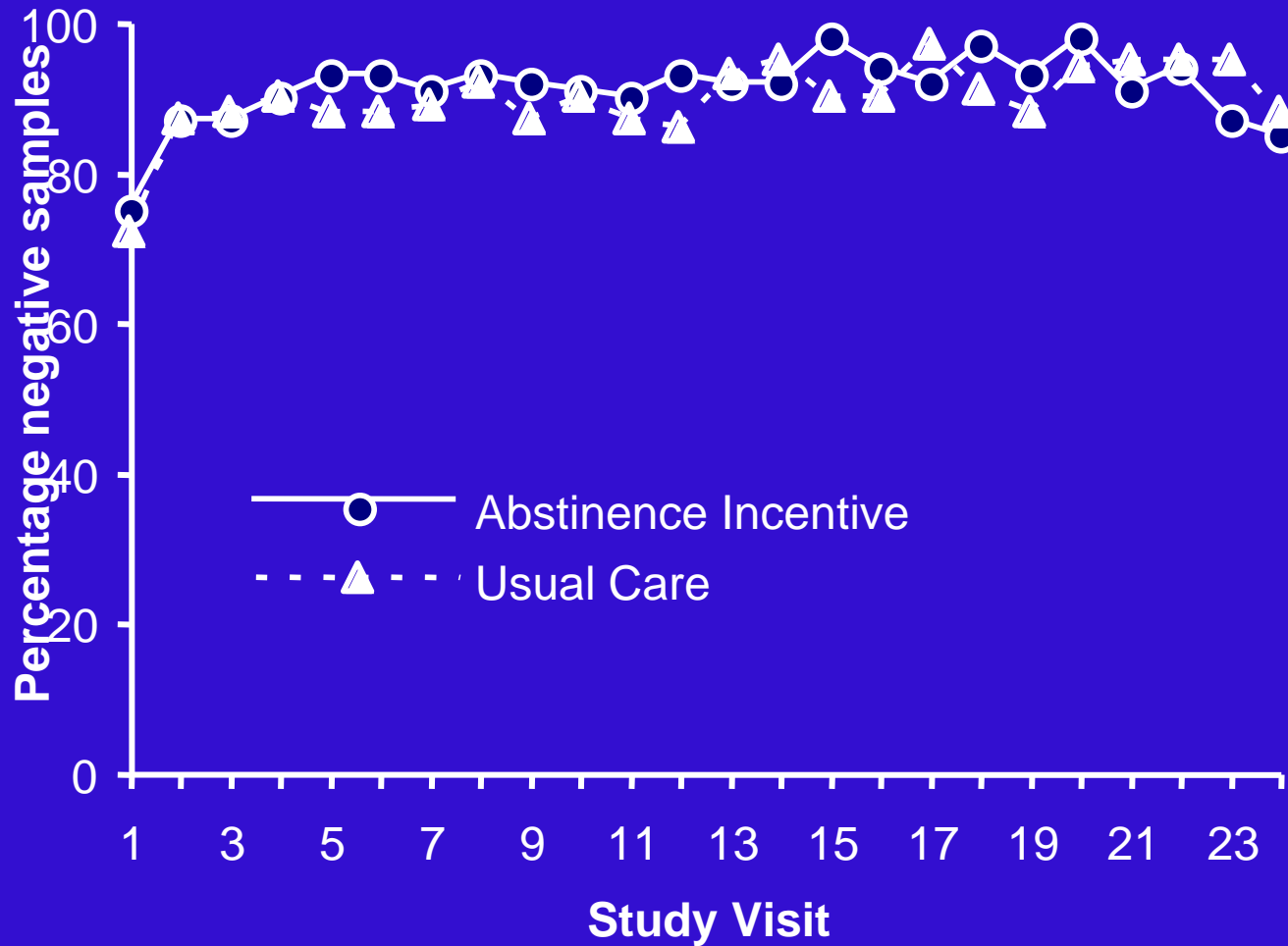
- \$400 in prizes could be earned on average
 - If participant tested negative for all targeted drugs over 12 consecutive weeks



Incentives Improve Retention in Counseling Treatment



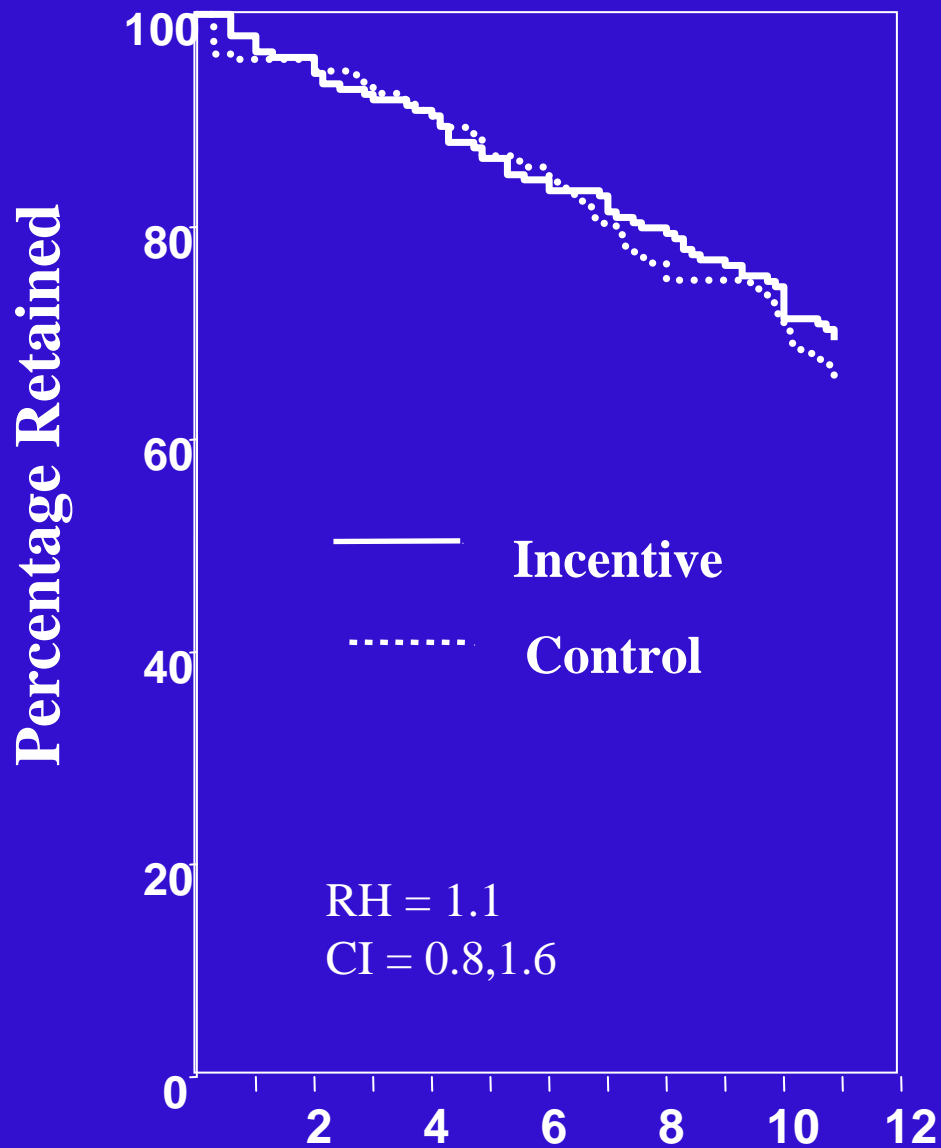
Percent of Submitted Samples Testing Stimulant and Alcohol Negative



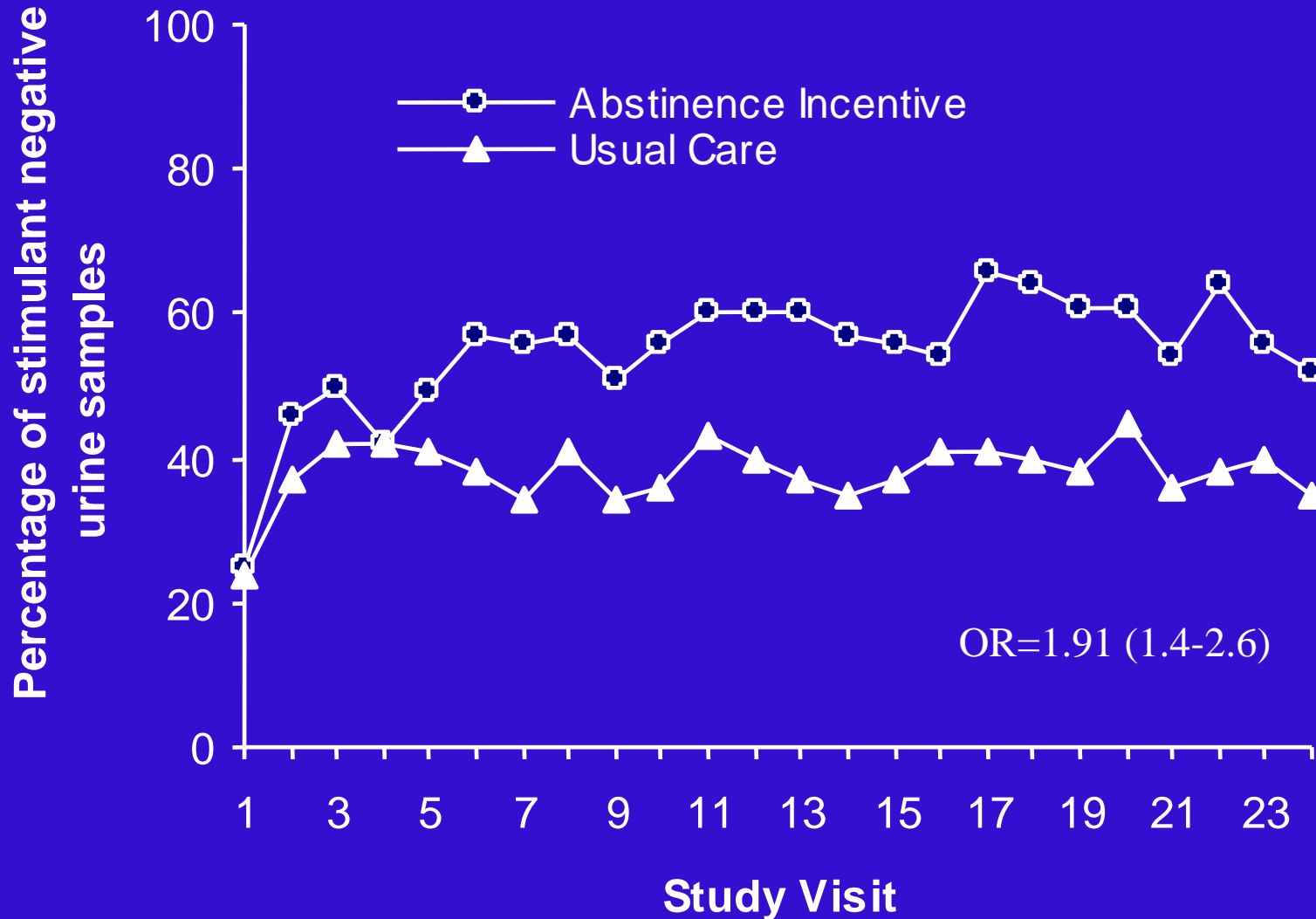
Abstinence Incentives in Psychosocial Counseling Tx

- Incentives lengthened duration of drug-free treatment participation
 - Presumably improving long-term outcomes
 -
- May be useful for all clients as relapse prevention
 - Suggests clinic-wide implementation

Study Retention in Methadone Treatment



Incentives reduce on-going drug use in methadone maintained patients



Abstinence Incentives in Methadone Maintenance

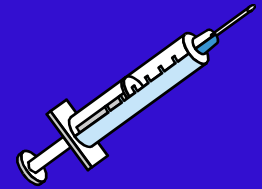
- Reduces on-going drug & alcohol use
- Intervention only with those who are using may be most clinically and cost-effective

Generality of Abstinence Incentive Effects Across Abused Substances

Cocaine

Opioids

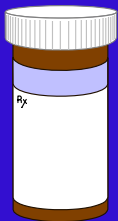
Methamphetamine



Alcohol

Marijuana

Nicotine (Tobacco smoking)



Abstinence Incentives: Advantages & Drawbacks

- Advantages
 - Reinforces message about importance of abstinence
 - Patients must come to Tx to earn
 - Counselors can work with drug-free patients
- Drawbacks
 - Cost and effort of frequent urine testing
 - Not everyone needs intervention

Session Attendance Target

- Petry reinforced homeless DA's for attending sessions at a drop-in center
 - 10-fold increase in attendance
- Sigmon & Stitzer used prize draws to impact group attendance of methadone maintenance patients
 - 24 group meetings; twice weekly over 12 weeks
 - Escalating prize draws w/ total possible earning of \$170

Group Attendance in Methadone Maintenance

Sessions attended

Incentive condition	76%
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No incentives	52%
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from Sigmon & Stitzer, JSAT, 2005

Attendance Incentive

- Escalating draws or vouchers for consecutive session attendance
- Advantages
 - Easily implemented and tracked
 - Increases contact with treatment providers
- Drawbacks
 - May not improve drug use outcomes in those who are actively using or who relapse

Abstinence vs Attendance Target

- Abstinence
 - Keystone of recovery; underpins life-style change
 - More costly and labor-intensive
- Attendance
 - Easier to implement
 - Improves engagement & morale
 - Don't know about long-term impact on drug use

Choosing Behavioral Targets: Phased Use of Incentives

- Start with attendance incentive
 - to improve early engagement
- Shift to abstinence
 - after attendance well established
- Shift to life-style change goals
 - after abstinence well established

Choosing a Reinforcement System: Vouchers vs Prize Draws?

- Both are effective
 - Petry et al., JCCP, 2005; 2007
 -
- Both require some staff work & oversight
 - Designing voucher or drawing system
 - Tracking progress and outcomes
 - Purchasing requested goods or stocking prizes
- Vouchers provide more certainty for patients
- Prize draws may cost less for equal benefit
- Clinics can design their own system

Motivational Incentives is an
effective intervention

Method is gaining popularity
but still infrequently used

Adoption Issues/Barriers

- Making the decision
 - Overcoming negative attitudes
- Learning what it is and how to do it
 - PAMI materials
- Finding resources
 - Staff time, money for prizes or vouchers

Overcoming Implementation Barriers Is Worthwhile

- Clients like it
 - Acknowledgement of success is highly valued
- Counselors like it
 - Happier and more engaged clients
- Funders like it
 - Evidence-based practice; better outcomes