

Using Motivational Incentives to Improve Patient Outcomes: More Carrot, Less Stick

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SOUTHEAST ADDICTION TECHNOLOGY TRANSFER CENTER (SOUTHEAST ATTC) REGION 4

Southeast ATTC is one of 10 Regional and 4 National Focus resource centers for addiction-related information funded through by the Substance Abuse and Mental Health Services Administration (SAMHSA). Southeast ATTC, located at the National Center for Primary Care at the Morehouse School of Medicine in Atlanta, serves the states of Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina and Tennessee.

ATTC PURPOSE

- RAISE AWARENESS OF EVIDENCE-BASED AND PROMISING TREATMENT AND RECOVERY SERVICE PRACTICES,
- BUILD SKILLS TO PREPARE THE WORKFORCE TO DELIVER STATE-OF-THE-ART ADDICTIONS TREATMENT AND RECOVERY SERVICES, AND
- CHANGE PRACTICE BY INCORPORATING THESE NEW SKILLS INTO EVERYDAY USE FOR THE PURPOSE OF IMPROVING ADDICTIONS TREATMENT AND RECOVERY OUTCOMES.

Learning Objectives

- Explore the effectiveness of motivational incentives
- Identify the underlying principles for successful use of motivational incentives
- Explore the various applications of motivational incentives within an OTP
- Discuss the requirement for implementing the use of motivational incentives

Motivational Incentives

- Are used as a tool to enhance treatment and facilitate recovery
- Target specific behaviors that are part of a patient treatment plan
- Celebrate the success of behavioral changes chosen by therapist and patient
- Are used as an adjunct to other therapeutic clinical methods
- Can be used to help motivate patients through stages of change to achieve an identified goal
- Are a reward to celebrate the change that is achieved

Why Motivational Incentives?

Agency Directors Considerations

- Minimum investment for increased retention
- Adoption of an evidence-based practice
- Limited training
- Motivates staff (possible retention)
- Provides a fun environment
- Promotes teamwork

Policy Maker Considerations

- Minimum investment for reduced substance use
- People engaged in treatment longer
- Reduction in societal costs
- Minimal training to implement

Clinical Staff Considerations

- Opportunity to celebrate success
- Tool to help patients achieve goals -- empowerment
- Increases patient cohesiveness
- Encourages participation with ancillary services
- Increases retention
- Reduces substance use

Definitions

REINFORCEMENT VS. PUNISHMENT

- Incentives or contingencies can be divided into *two types* – reinforcements and punishments. The goal of *reinforcement* is to increase the occurrence of a behavior while the goal of *punishment* is to decrease the occurrence of a behavior.
- **Reinforcements:** There are two kinds of reinforcements – positive and negative.
 - *Positive* reinforcement involves the presentation of a stimuli after a behavior occurs, while
 - *negative* reinforcement involves the removal of a stimuli once a behavior has occurred.

REINFORCEMENT VS. PUNISHMENT

- **Punishment** involves the presentation of some kind of aversive stimuli when the undesired behavior occurs. An example of this would be receiving a ticket for speeding.
- **The core difference between reinforcement and punishment is not whether it is pleasant or unpleasant; it is whether the goal is to increase or to decrease the likelihood of a behavior.**
- Reinforcement – increase the occurrence of a behavior
- Punishment – decrease the occurrence of a behavior

MOTIVATIONAL INCENTIVES VS. CONTINGENCY MANAGEMENT

- **Motivational Incentives & Contingency Management are used interchangeably**, they are based upon principles of behavioral modification.
- **Motivational Incentives** is a term synonymous with Contingency Management. These interventions are based on behavioral research indicating that when a behavior is reinforced, it increases in frequency.
- **Contingency Management** was first used in the 1960s and is based on the work of behaviorist B. F. Skinner's idea of operant conditioning. Skinner purposed that behaviors that are rewarded are more likely to re-occur.

REWARD VS. PUNISHMENT

- **Rewards** are celebrating specific benchmarks such as achieving one month of abstinence.
- **Reinforcements** – offer incentives for smaller goals.

MOTIVATIONAL INCENTIVES VS. MOTIVATIONAL INTERVIEWING

- **Similarities:** Motivational Incentives and Motivational Interviewing both address patients' ambivalence about extinguishing or reducing alcohol and other drug use.
- **Differences:**
 - **Motivational *incentives*** – Offering an immediate and tangible reinforcement for engaging in health-promoting behavior often helps a patient resolve his or her ambivalence about their continued use of alcohol and other substances.
 - **Motivational *interviewing*** – the goal is to work with the ambivalence to create inner conflict (dissonance) (Miller, 2003).

OPERANT CONDITIONING VS. CLASSICAL CONDITIONING

- **Operant Conditioning - behaviors are altered by the consequences that follow them**
- Learning is a function of change in overt behavior. Changes in behavior are the result of an individual's response to events (stimuli) that occur in the environment. When a particular Stimulus-Response (S-R) pattern is reinforced (rewarded), the individual is conditioned to respond.
- **Classical Conditioning – is an involuntary, or automatic response to a stimulus**

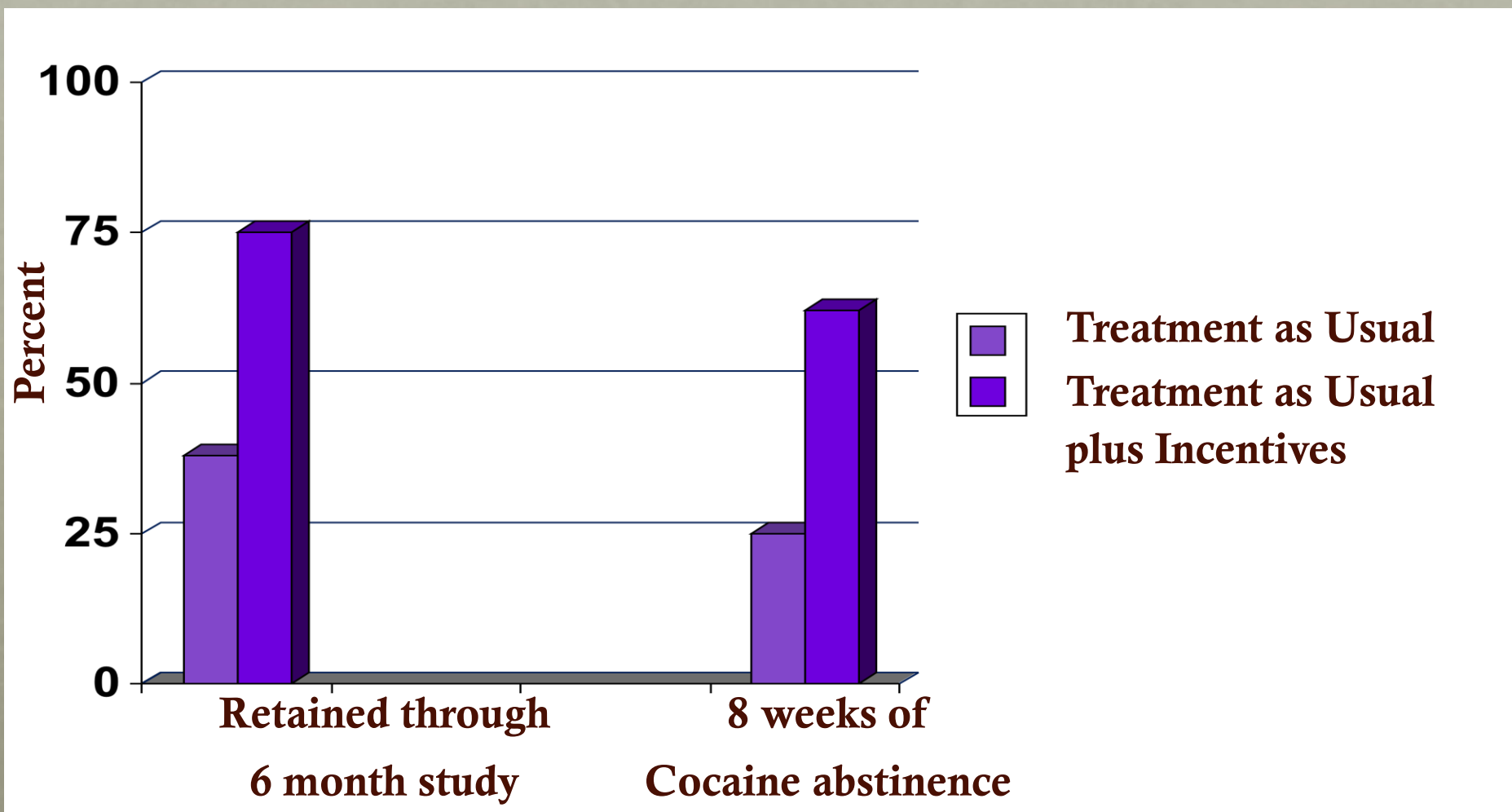
History

- Motivational incentives have their roots in Operant Conditioning- the work of B. F. Skinner
- Behaviors that are rewarded are more likely to re-occur
- Behaviors that are punished are less likely to re-occur

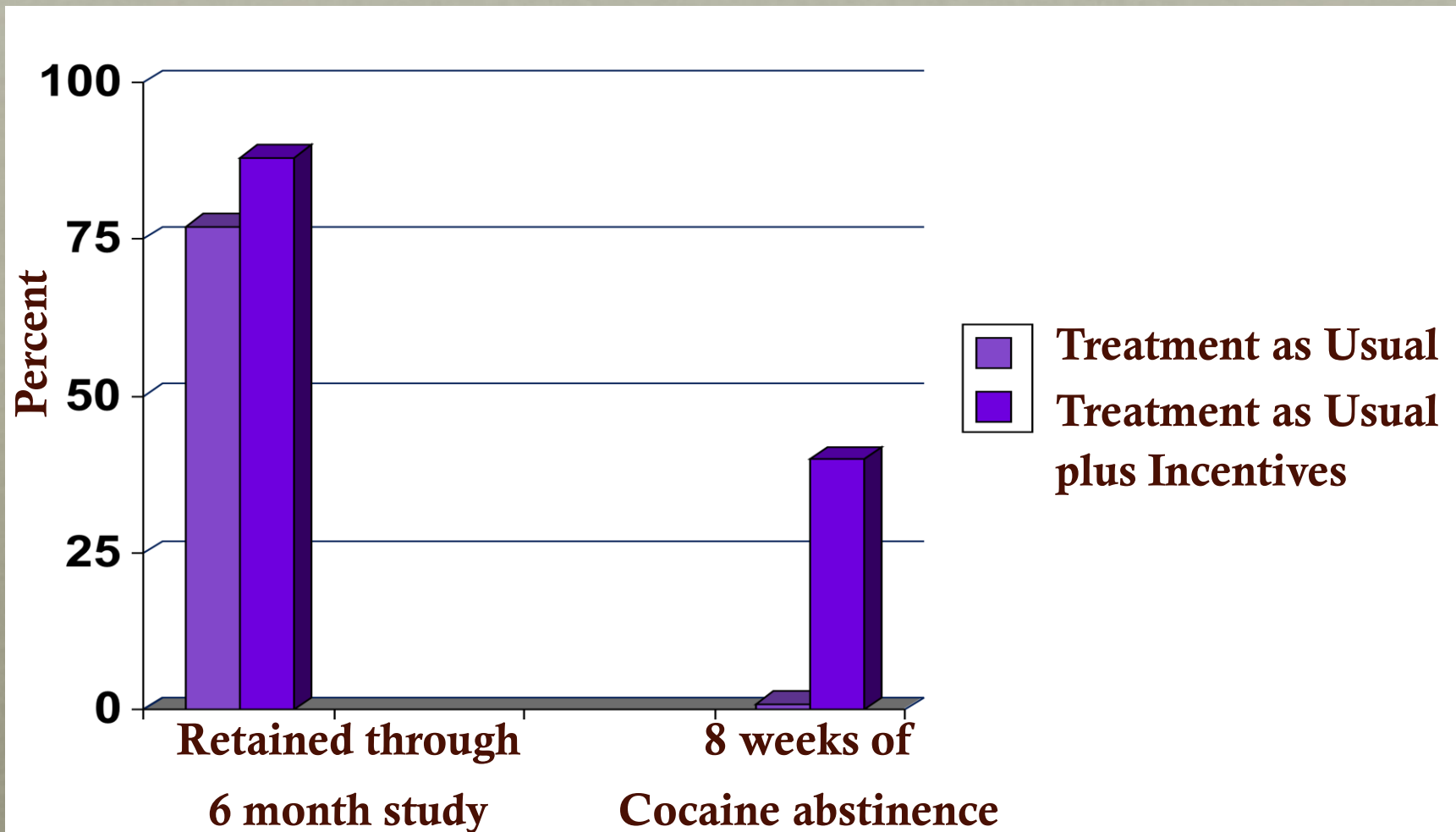
"The major problems of the world today can be solved only if we improve our understanding of human behavior"

- About Behaviorism (1974)

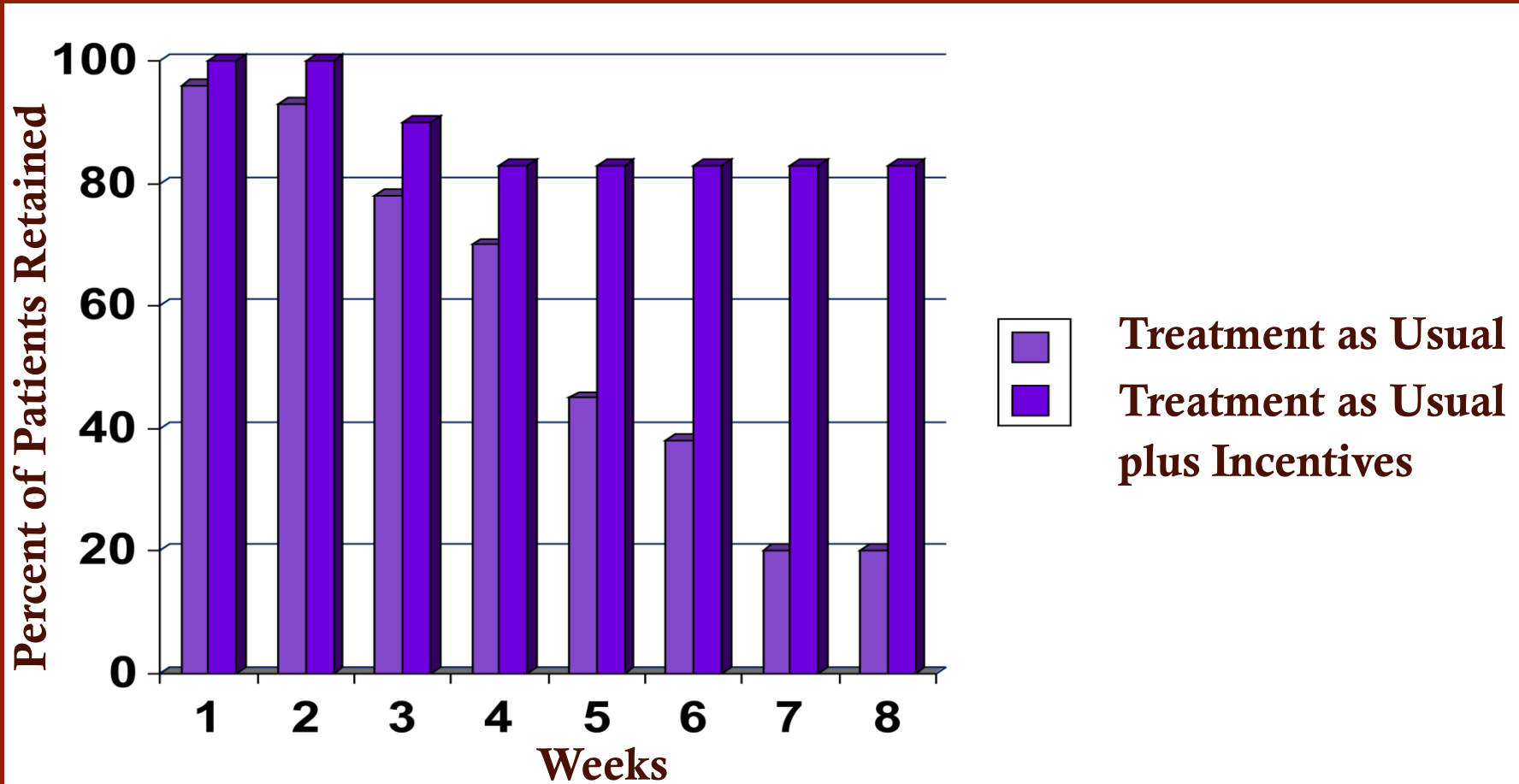
TREATMENT OF COCAINE DEPENDENCE



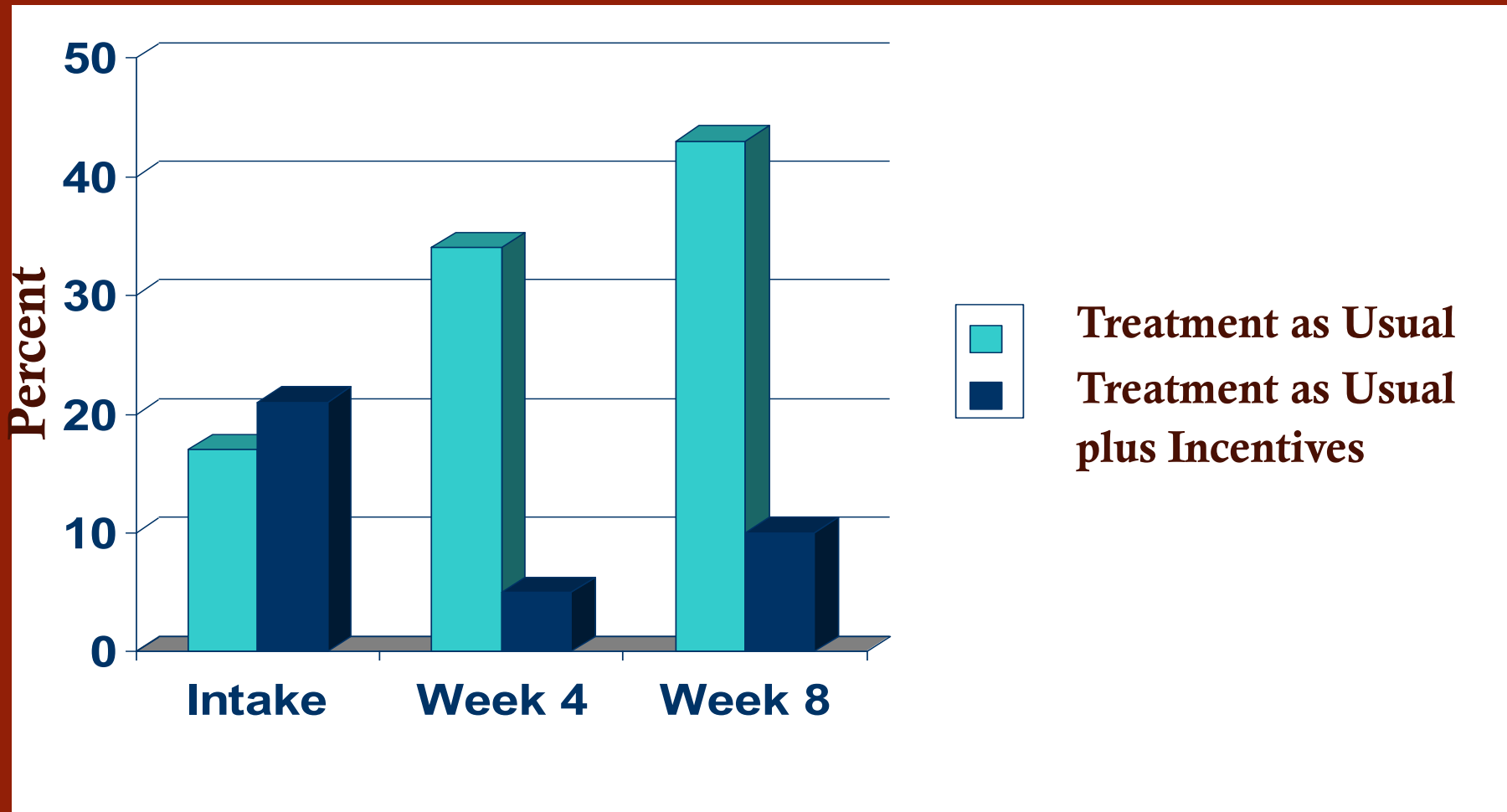
TREATMENT OF COCAINE USE IN METHADONE PATIENTS



RETENTION



PERCENT POSITIVE FOR ANY ILLICIT DRUG



MOTIVATIONAL INCENTIVES FOR ENHANCED DRUG ABUSE RECOVERY

MIEDAR
NIDA Research

Conducted through NIDA's
Clinical Trials Network (CTN)

**Hand-Off
Meeting**

A collaboration—review research findings; preliminary dissemination strategies and Blending Team formation

**Blending
Team**

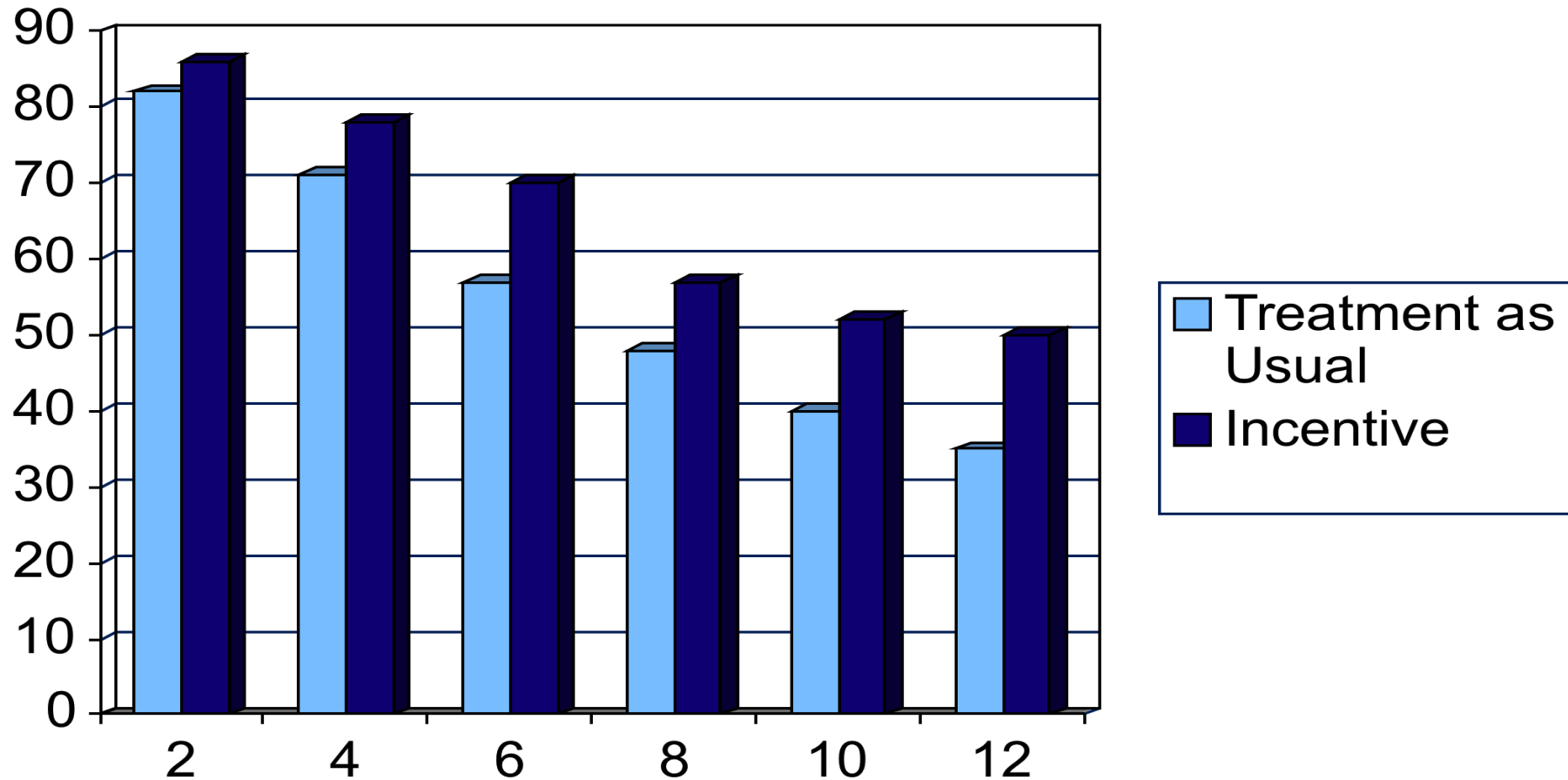
Develops products for use in the field

PAMI

Promoting Awareness of
Motivational Incentives

MOTIVATIONAL INCENTIVES FOR ENHANCED DRUG ABUSE RECOVERY

Improved Retention in Counseling Treatment

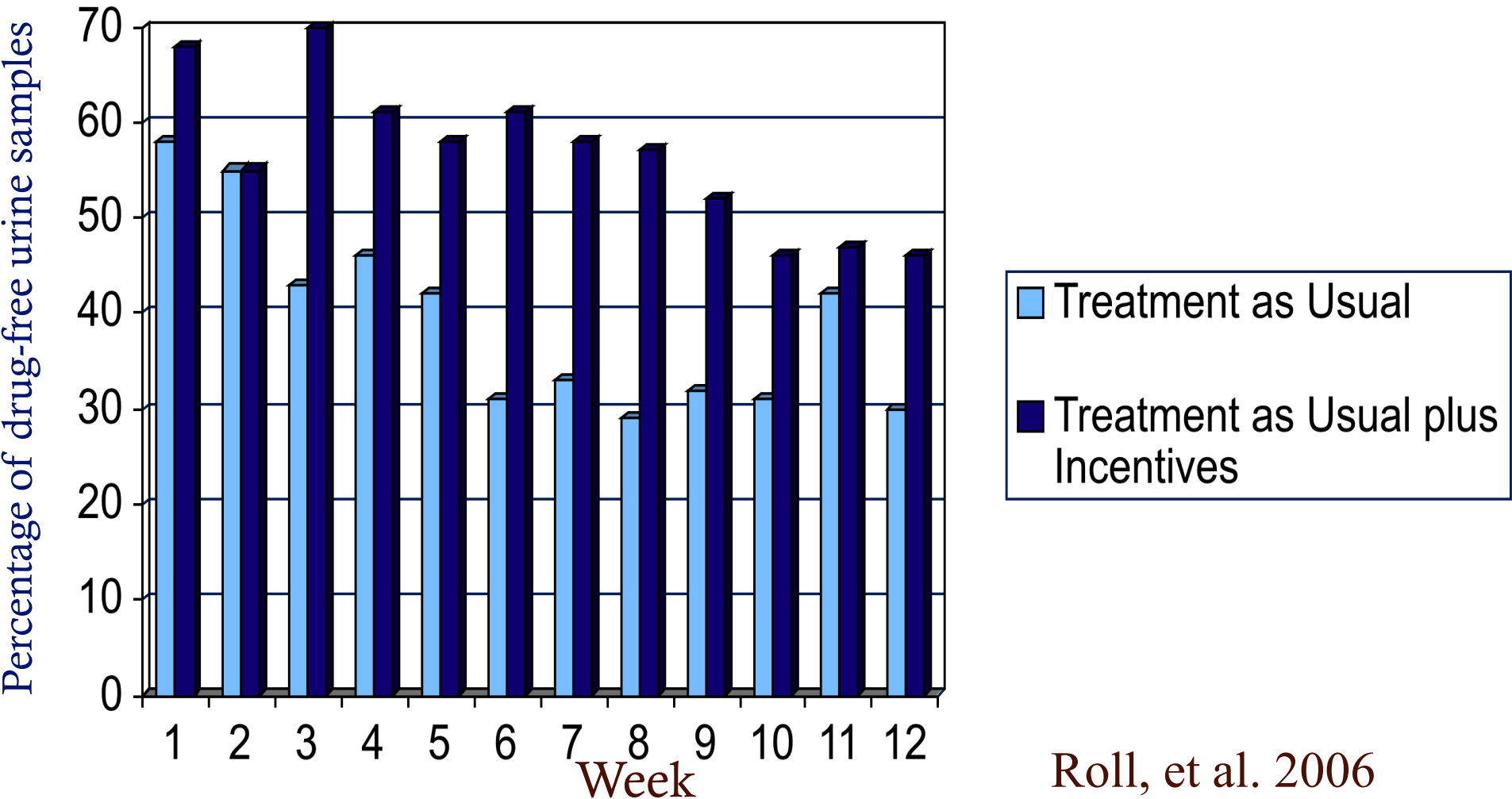


Study Week

Petry, Peirce, Stitzer, et al. 2005

MOTIVATIONAL INCENTIVES FOR ENHANCED DRUG ABUSE RECOVERY

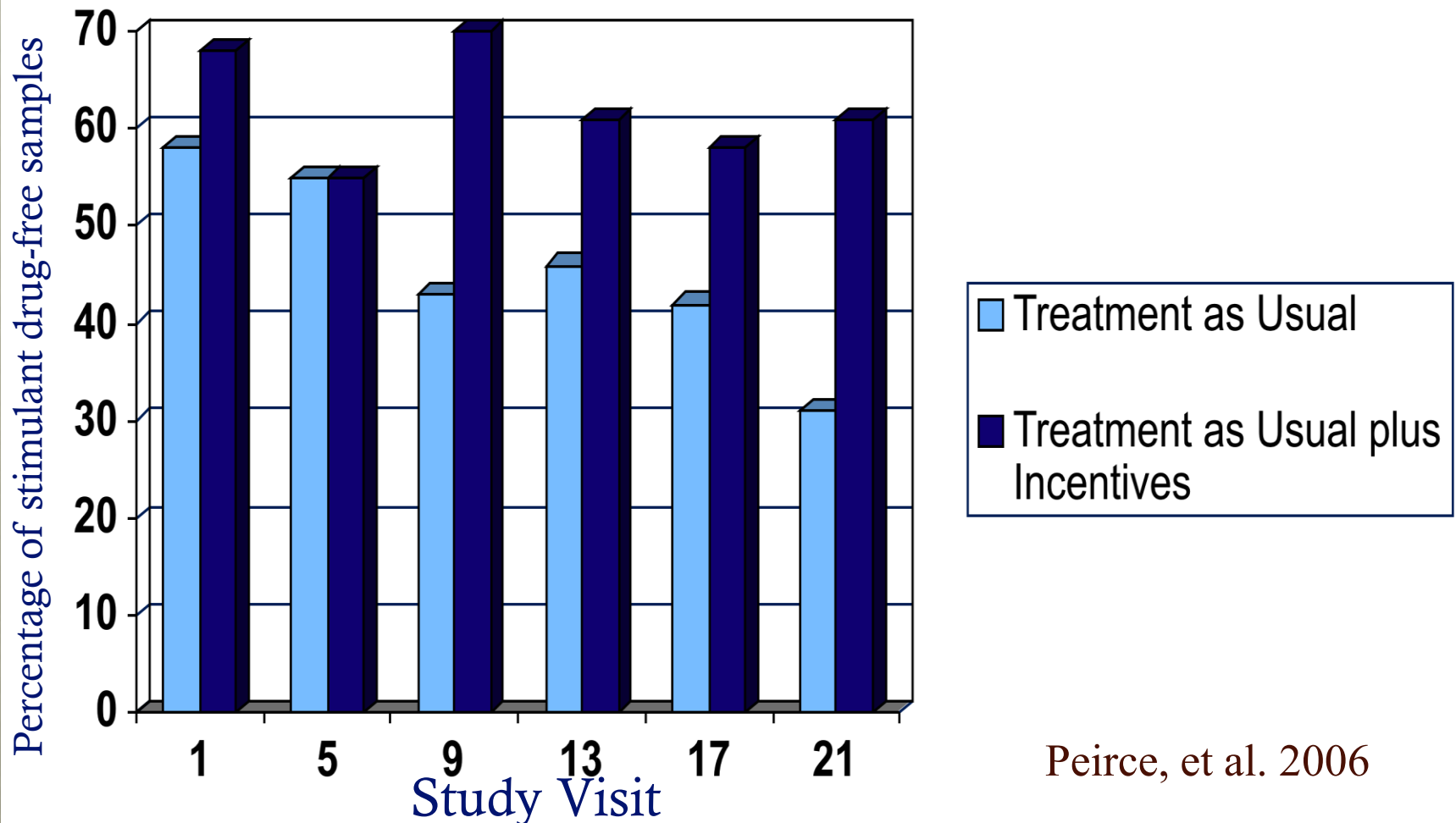
Incentives Improve Outcomes in Methamphetamine Users



Roll, et al. 2006

MOTIVATIONAL INCENTIVES FOR ENHANCED DRUG ABUSE RECOVERY

Incentives Reduce Stimulant Use in Methadone Maintenance Treatment



Peirce, et al. 2006

FOUNDING PRINCIPLES

The 7 principles that we will review are centered around three tenets:

- Target behaviors that are readily detected (frequently monitored)
- Provide reinforcement whenever the target behavior occurs
- Withhold reinforcement when the behavior does not occur

FOUNDING PRINCIPLES

1. The target behavior;
2. The target population;
3. The type of reinforcer or incentive;
4. The magnitude or amount of incentive;
5. The frequency of the incentive distribution;
6. The timing of the distribution of the reinforcement;
7. The duration of the reinforcement intervention.

IDENTIFYING THE TARGET BEHAVIOR

- Something problematic – in need of change
- Must be observable and measurable

CHOICE OF TARGET POPULATION

- While it might be ideal to provide reinforcements for all of the patients in a program, this may not be feasible or even necessary.
- This means that choices will need to be made as to which group or subpopulation to target with reinforcement-based interventions.

CHOICE OF REINFORCER

- Incentives that are perceived as desirable are likely to have greater impact.
 - Access to clinic privileges
 - Onsite prize distribution
 - Vouchers

INCENTIVE MAGNITUDE

- Magnitude determines the degree to which the intervention is effective
- Reinforcer must be competitive with the behavioral targeted for change
- Reinforcing short-term goals

FREQUENCY OF INCENTIVE DISTRIBUTION

- Schedule based on many variables

TIMING OF THE INCENTIVE

- Poor timing can undermine the most well planned intervention
- Immediacy is important
- Reinforcement needs to follow the exhibition of the target behavior as closely as possible

DURATION OF INTERVENTION

Ultimately, patients will need to internalize the recovery process and find or develop naturally-occurring reinforcers that will support their recovery-based and nonaddict identities (Biernacki, 1986; Kellogg, 1993; see also Lewis & Petry, 2005).

Low Cost Incentives

- *MIEDAR* studies focused on managing the cost and efficacy of incentives
- *Fishbowl Method* – patients select a slip of paper from a fish bowl
- Behavior is reinforced immediately
- Patient draws from the fish bowl immediately after a drug-free urine screen
- Patient exchanges prize slip for a selected prize from the cabinet

Low Cost Incentives

To help manage the cost, the slips are split as follows:

- 50% - Good Job (\$0)
- 41.8% – Small prize (\$1)
- 8% – Medium prize (\$20)
- 0.2% – Jumbo prize (\$100)

Low Cost Incentives

Patients are allowed to select an increasing number of draws each time they reach an identified goal.

- Patients may get one draw for the first drug-free urine sample, two draws for the second drug-free urine, and so on.
- Patients will lose the opportunity to draw a prize with a positive urine screen, but are encouraged and supported. When they test drug-free again, they can start with one draw.

CHALLENGES



- Cost of incentives
- On-site testing
- Counselor resistance

CHALLENGES



- Is it fair?
- Does this lead to gambling addiction?

CHALLENGES



- Isn't this just rewarding patients for what they should be doing anyway?

CHALLENGES



- How do I select the reinforcements?

CHALLENGES

Can Motivational Incentives be used with adolescents, or patients with co-occurring disorders?


WHAT DO YOU SAY?

- What are your thoughts about Motivational Incentives?
- What are your concerns?
- What are some things you would need to do to consider implementing Motivational Incentives?

**WHAT WOULD IT
LOOK LIKE?**

RESOURCES

- www.drugabuse.gov
- www.ATTCnetwork.org/PAMI
- www.samhsa.gov
- www.csat.samhsa.gov
- www.ATTCnetwork.org

The image features a background of a stone archway, possibly a tunnel entrance, with a grid pattern overlaid on it. A prominent black horizontal band runs across the center of the image, containing the word "QUESTIONS" in white, uppercase, sans-serif font. The archway is illuminated from above, creating a warm, golden glow. The grid lines are thin and light-colored, creating a technical or architectural feel.

QUESTIONS

The End

