



UW PACC

Psychiatry and Addictions Case Conference

UW Medicine | Psychiatry and Behavioral Sciences

DIGITIZED CONTINGENCY MANAGEMENT

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WECONNECT HEALTH



GENERAL DISCLOSURES

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GENERAL DISCLOSURES

UW PACC is also supported by Coordinated Care
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SPEAKER DISCLOSURES

- Will Wright has done work for WEconnect Health
- Samantha Theriault is an employee of WEconnect Health

PLANNER DISCLOSURES

The following series planners have no relevant conflicts of interest to disclose:

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OBJECTIVES

1. Review contingency management (CM)
2. Identify the primary barriers to adoption
3. Summarize how digitized CM bypasses these barriers
4. Review real-world digitized CM example
5. Discuss the future of contingency management



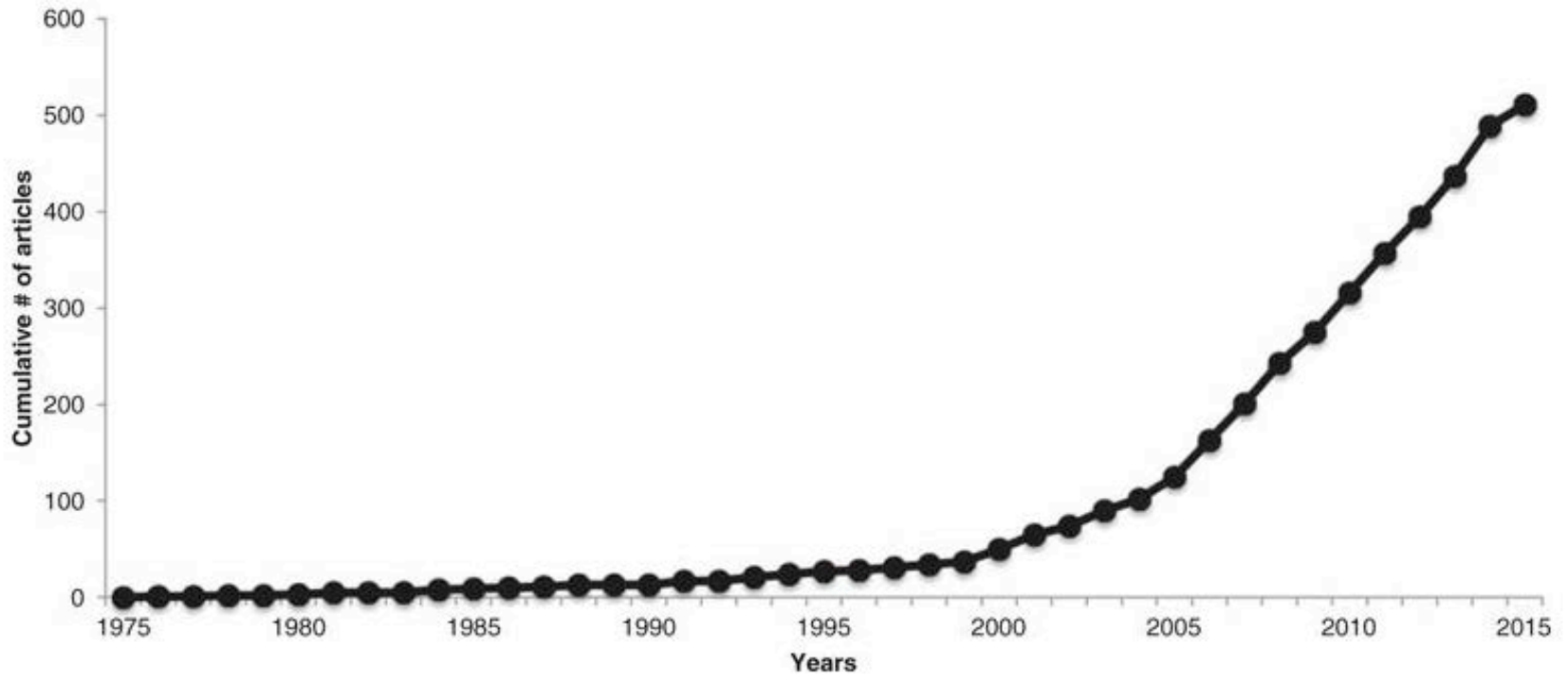
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BACKGROUND

- Contingency Management (CM) interventions reward evidence of behavior change
- High efficacy across a wide range of SUDs and demographics
- Success in the early 90s prompted the expansion of CM research



Growth in CM Literature from 1975-2015





OUTCOMES

- Meta-Analyses show average in-treatment effect sizes between 0.32 and 0.62
- Average post-treatment effects size is 0.26
- 86% of 176 controlled studies show significant treatment effects
- “Clinical uptake is not commiserate with evidence of efficacy” – Journal of Substance Abuse Treatment, 2016



MODERATORS

- Delay in incentive delivery
 - More delay reduces effects
- Incentive monetary value
 - Higher magnitude more efficacious
- Cash versus Vouchers
 - Both efficacious
- Incentive schedule
 - Mixed results
- Reward probability
 - No significant differences



BARRIERS TO ADOPTION/SUCCESS

- Clinician training
- Delay between behavior and reward
- Burden of obtaining behavior-change evidence
- Cost

DIGITAL CONTINGENCY MANAGEMENT

- Eliminates clinician-delivered requirement
- Eliminates reward delay
- Automates data collection and outcomes reporting
 - GPS-verified attendance
 - Toxicology results data collection
 - In-app surveys

DIGITAL CM EXAMPLE: WECONNECT

- Reinforced behaviors:
 - GPS-verified attendance to meetings/appointments
 - AA Meetings
 - SMART recovery
 - MAT appointments
 - PCP appointments
 - (other support-related meetings)
 - Taking surveys
 - Getting to recovery milestones (1, 2, 3, 6, 12 months)
- Delivery via ‘points’ convertible to gift cards



DIGITAL CM REWARDS SCHEDULE

- Rewards Schedule considerations
 - Program duration (3 months? 1 year? Ongoing?)
 - Total monetary value
 - Monetary balancing (front/back-heavy, uniform?)
 - Frequency of reward
 - Streak bonuses (loss aversion)
 - Probability of reward



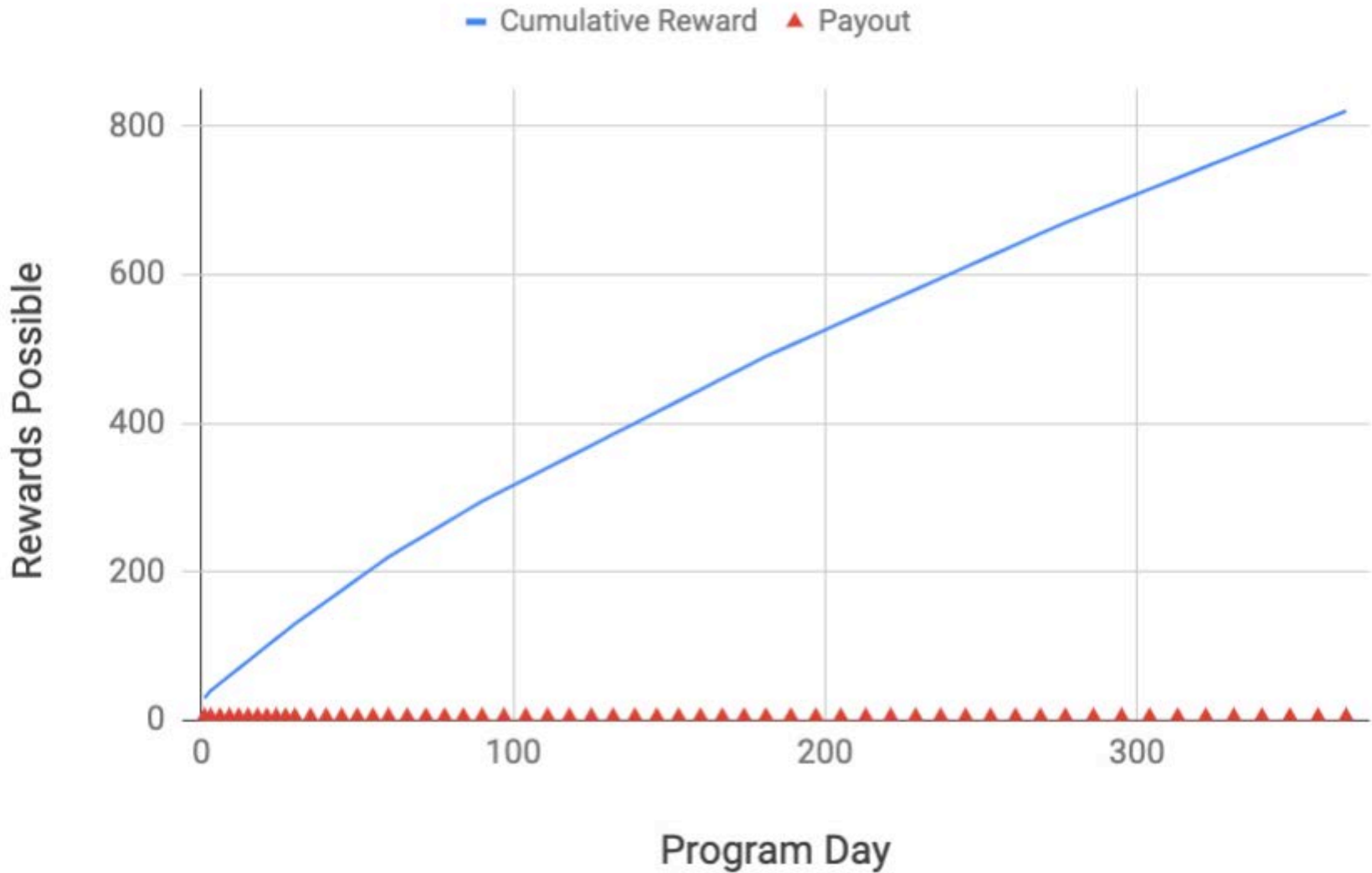
CREATING A TARGETED SOLUTION

Finish a story that begins with these words:

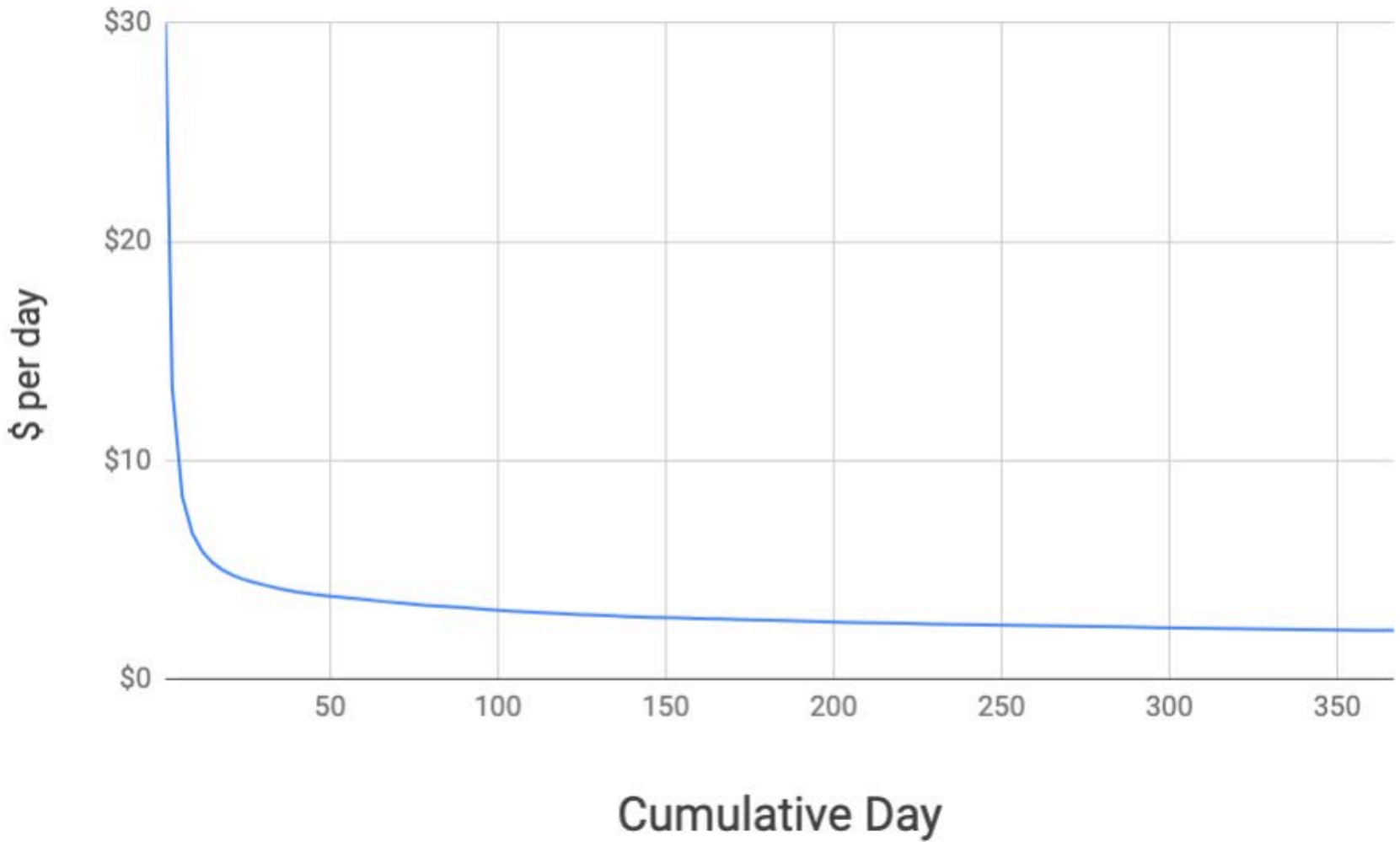
“After awakening, Bill began to think about his future. In general, he expected to _____.”

- Study asked heroin addicts and a control
- Results:
 - Heroin addicts told stories that averaged 9 days
 - Control group told stories that averaged 4.7 years
- Meta-analysis shows 2/3 of effect size due to immediacy of reward

Rewards Payout Schedule



Rewards per Day

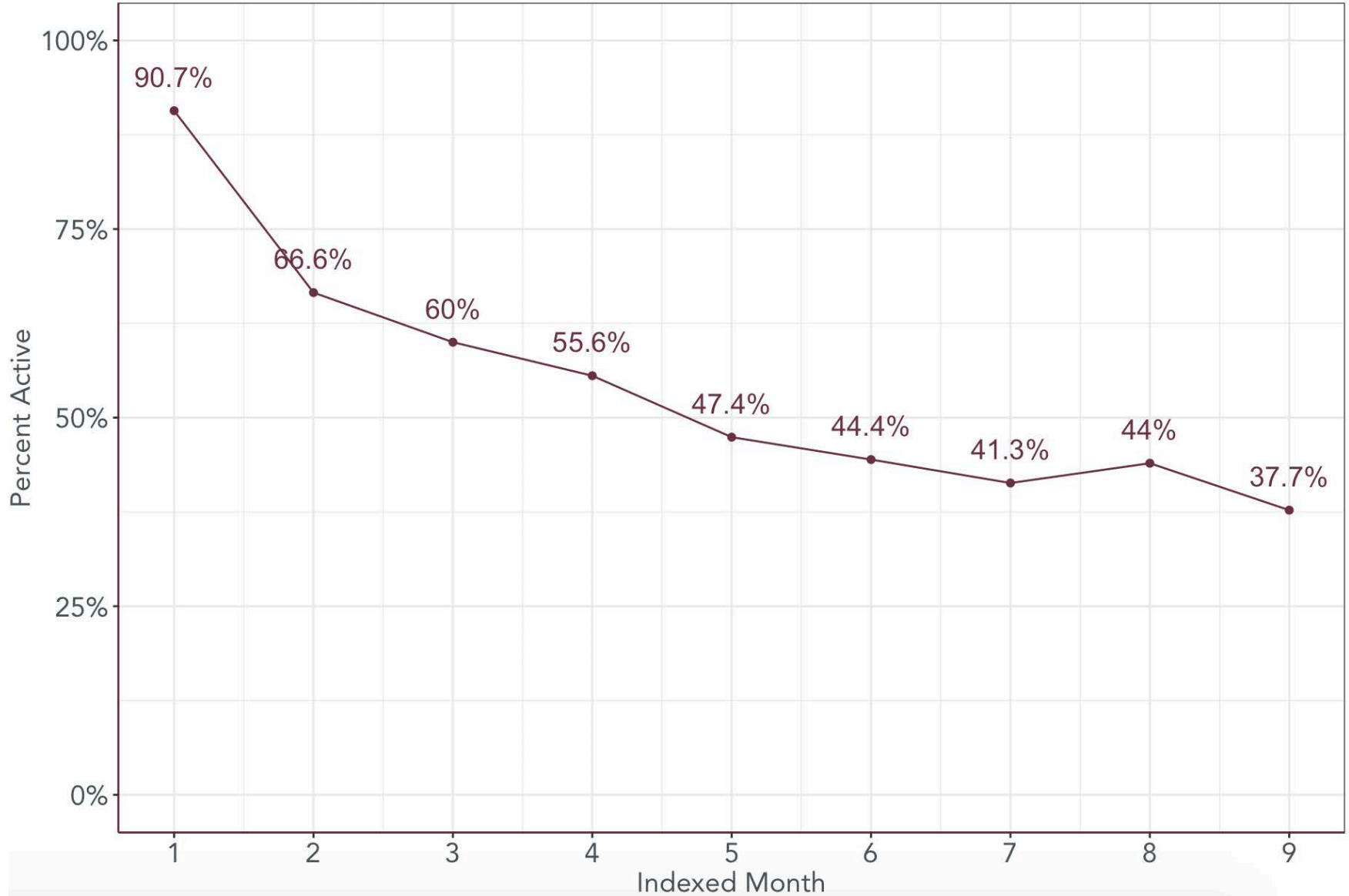


DEMO

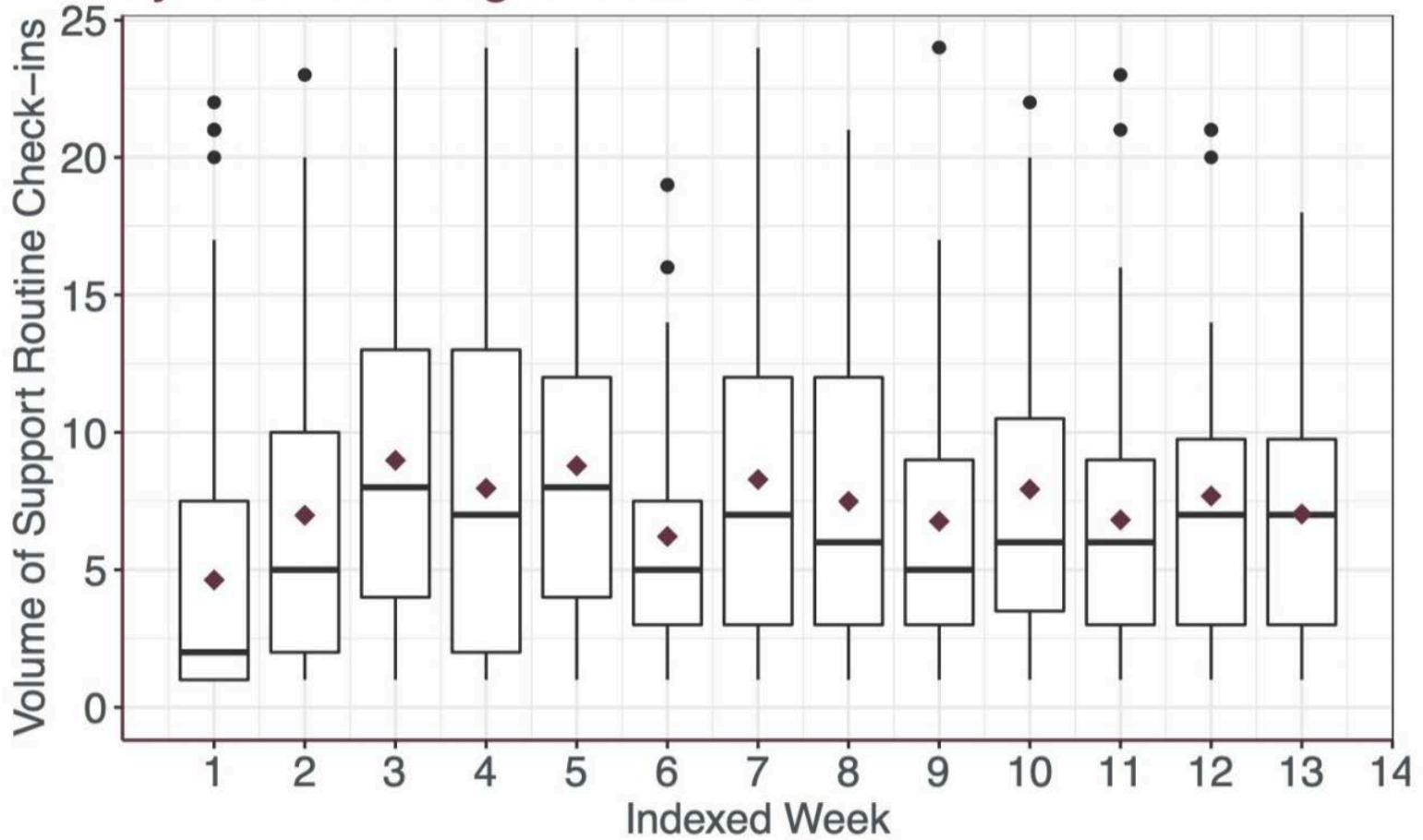
OUTCOMES

- 87% self-reported abstinence at 90 days
 - 30% response rate makes this difficult to compare to research studies
- 91% agree or strongly agree that the platform helps their recovery
- NPS of 68
- Mean of 4 support check-ins per week
- Mean of 8 self-care check-ins per week

Indexed Monthly Retention Rates



Support Routine Check-ins for Active Patients by Weeks Using WEconnect



DIGITAL CM CHALLENGES

- Cheating
 - No way of verifying patient left the parking lot
 - No reliable way of verifying drug screening results
- Lying
 - No way of verifying accurate self-reported abstinence
 - Non-clinical drug screening can be faked
- Retention
 - App shouldn't feel like a chore—should be fun!
- Finding target markets aligned on goals
 - Treatment centers not incentivized to reduce substance use
 - Health plans interested, but slow to adopt
- Costs



WHAT ABOUT COST?

- Current rewards range from ~\$5-\$20/day
- While still a positive ROI, inhibitive for price-sensitive providers
 - \$450-\$800 per patient for 3 months
 - \$1825-\$7300 per patient for 12 months
- Potential non-monetary gamified motivators



BENEFITS OF GAMIFICATION

- Study of 261 Health/Fitness apps:
 - 53% were gamified
 - 24% had digital rewards
 - Significant association between gamification and app popularity
- Analysis of 17 gamification studies:
 - 88% showed significant increase in positive effects
 - Higher engagement
 - Higher time in app
 - Other reinforced behaviors
 - “Positive Experiences from gamification were reported in all studies”

THE FUTURE OF DIGITAL CM SOLUTIONS

- Non-monetary/gamified/intrinsic rewards
 - Variable-probability rewards
 - Narrative
 - Other gamification elements
- Supporting traditional treatment and a standalone treatment
- Clinician-guided and self-serve options
- AI-guided recovery plans and risk assessments
- Digital peer recovery support specialists
- Inclusion of other recovery resources
- Hybridization with other behavior therapies
 - Community Reinforcement Approach
 - Cognitive Behavioral Therapy