PILOTING AN INCENTIVE-BASED SMOKING CESSATION PROGRAM

Realworks, St. Elizabeth Healthcare, DynamiCare Health

Employer Case Study

St. Elizabeth Healthcare is a major healthcare system in Northern Kentucky, where 34% of residents use tobacco products. Traditionally, St. Elizabeth has offered the Freshstart program (from the American Cancer Society) for employees who smoke. However, the program had no way to verify whether participants quit or to measure success rates. Facilitators at St. Elizabeth estimate that 4% of their Freshstart participants have quit over the years.

Seeking to find a better solution to address smoking in the workforce, St. Elizabeth partnered with Realworks, a provider-led innovation group in Greater Cincinnati, and DynamiCare Health, a digital health company with an incentives-based smoking cessation program.

Realworks.   St. Elizabeth HEALTHCARE   DynamiCare HEALTH

Division of Responsibilities

Realworks

- Vendor Selection
- Pilot Design
- Contracting
- Pilot Evaluation

St Elizabeth's Healthcare

- Pilot Marketing
- Pilot Recruitment
- Referral to DynamiCare

DynamiCare

- Intervention Delivery
- Data Gathering

Why we picked DynamiCare Health

Tasked by St. Elizabeth with identifying and implementing an effective smoking cessation solution, Realworks began by investigating existing, evidence-based programs beyond the standard NRT and coaching that St. Elizabeth was already using.

We identified strong academic research on the effectiveness of an incentives-based methodology called contingency management (CM).

We decided to turn to technology companies that could bridge the gap between the research on CM and clinical practice because technology:
- is well-positioned to operationalize CM research and overcome historical barriers to implementation
- would allow treatment centers to deliver CM efficiently

Among incentive-based programs, DynamiCare was selected for its:

1. User-friendly platform that streamlines the frequent & immediate delivery of incentives.
2. Holistic approach to smoking cessation that incorporates cognitive behavioral therapy, nicotine replacement therapy, contingency management, and smoking education into one program.
3. Automated, biometric verification of smoking status.

Behavioral Incentives Are Most Effective

Six-Month Quit Rates Randomized Control Trial
(Halpern 2018)

Smoke Free TXT	Free Nicotine Patches/ Chantix	Free eCigarettes	Behavioral Incentives
0.7%	2.9%	4.8%	12.7%
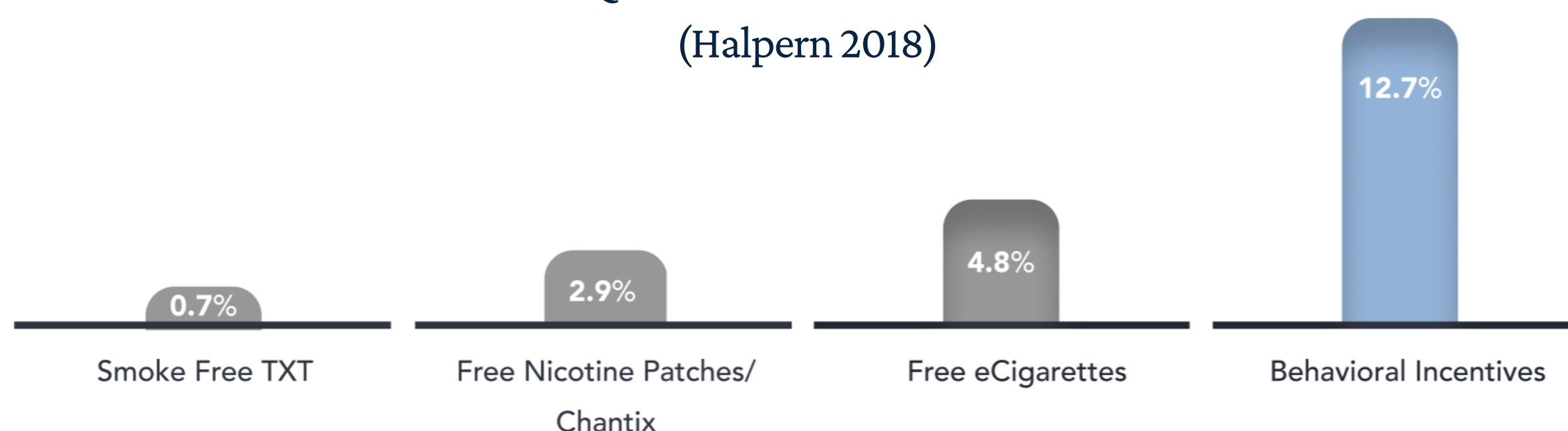
The Intervention

We designed our intervention in partnership with the head facilitator of St. Elizabeth's Freshstart program, Jeanie Foley RN, who led the integration of the pilot program into existing operations.

Recruitment

St. Elizabeth Healthcare employs over 8,000 associates. Participants were recruited through a program flyer emailed to 900 employees on a wellness listserv in November 2019. Over the following two months, 43 employees responded to the email demonstrating interest in participating in the pilot program. Jeanie Foley managed outreach and registered 35 employees to participate in the pilot.
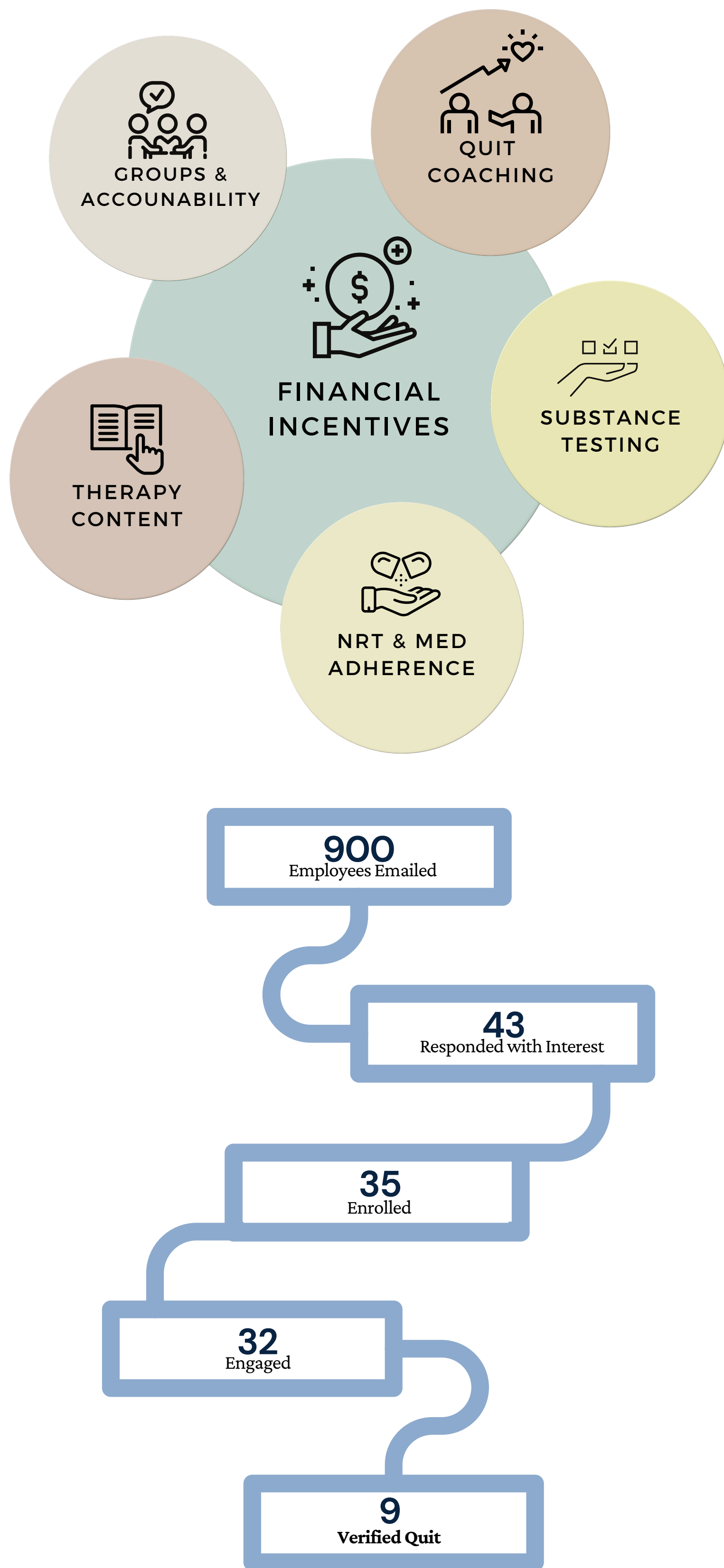
Intake

Jeanie handed off all recruited employees to DynamiCare Health's quit coaches so they could provide consent for participation and be formally enrolled in the pilot. The quit coaches explained the digital care program, how to download and use the mobile-based application and smokerlyzer, then directly shipped restricted debit cards and either saliva tests or Smokerlyzers depending on participants' preferred form of nicotine consumption.

Treatment Plan

Of the 35 employees and friends/family of employees who registered to participate, 32 initiated their participation in the program on a rolling basis between December 2019 and January 2020. Employees were able to participate in the pilot for 3-4 months, being eligible to earn up to $100 each month.

Results

Of the 32 participants who engaged, 9 quit smoking (28%). Employees in DynamiCare Health's digital care program quit (verified) at a much higher rate than the estimated percentage of those who quit (unverified) in St. Elizabeth's existing Fresh Start Program (4%). Overall, the participants performed as follows:

GROUPS & ACCOUNABILITY

QUIT COACHING

FINANCIAL INCENTIVES

THERAPY CONTENT

SUBSTANCE TESTING

NRT & MED ADHERENCE

900 Employees Emailed

43 Responded with Interest

35 Enrolled

32 Engaged

9 Verified Quit

	Participants	Rewards Earned (Avg)	CBT Modules Completed (Avg)	Nicotine Testing: Succesful (Avg)
Quit	9 (28%)	$303.00	41%	79%
No Quit	23 (72%)	$95.00	31%	33%
Total	32 (100%)	$149.00	33%	45%

Participant and Provider Response

> "One day, I was driving to Cleveland, and it's a boring drive. And I smoked the whole day and I knew I was going to fail. And when I got back, I still took it [smokerlyzer test] and it was 30 [ppm CO – a high reading]. And so, I was like, "Okay."
> But I wanted to be accountable and saw it the next day. I didn't smoke anything because I wasn't in the car and I wasn't bored and it was down to 9."
>
> – DynamiCare Program Participant

> With our in-person program, most people didn't complete it, and if they did, the only measure of success we had was whether they set a quit date. We had no idea how many people actually quit. With DynamiCare, we were not only able to boost the quit rate tremendously but also get solid data on quit rates to measure the effectiveness of the program."
>
> – Jeanie Foley RN, Project Manager at St. Elizabeth

Conclusions

In our pilot of DynamiCare Health's smoking cessation program at St. Elizabeth, we found that the incentives-based digital care program has vast potential for high-impact in real-world settings. Motivational incentives have been found to be an effective mode of therapy for decades but have not been implemented due to operational difficulties.

DynamiCare's automated testing and reward delivery process allows members to remain accountable to their treatment and eases operational struggles. From a fiscal perspective, mobile-based motivational incentives can greatly reduce costs not only on the overall healthcare system but also on employer-based health insurance plans, clearing a path towards widespread implementation.

Motivational incentives have been found to cost less per successful quit than other approaches, and much less than the estimated annual cost to an employer per smoking employee of $5,816. St. Elizabeth Healthcare has already engaged further with DynamiCare on a new grant-supported smoking cessation project.

__Realworks__ is a non-profit, provider-led fund focused on innovation in addiction treatment.
The fund invests in and manages pilots of new technologies that have the potential for immediate impact as well as scale at a national level – using the Cincinnati/Northern Kentucky region as a "lab" for figuring out what works.
For more information, visit www.realworks2020.org.