



Published in final edited form as:

*Am J Med.* 2020 June ; 133(6): 741–749. doi:10.1016/j.amjmed.2019.12.025.

## Financial Incentives for Smoking Cessation in Hospitalized Patients: A Randomized Clinical Trial

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### Abstract

**Background**—Financial incentives for smoking cessation and use of evidence-based therapy may increase quitting rates and reduce health and economic disparities.

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Competing Interests

N/A

Data access: All authors had access to the data and a role in writing the manuscript.

**Trial registration:** [ClinicalTrials.gov](https://clinicaltrials.gov) Identifier: [NCT02506829](https://clinicaltrials.gov/ct2/show/study/NCT02506829)

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**Disclosures:** None

#### DECLARATIONS

Ethics approval and Consent to Participate

The protocol was approved by the Institutional Review Board of the Manhattan Campus of the VA NY Harbor Healthcare System, Protocol #01494. The principal investigators and research staff were responsible for obtaining informed consent from all study participants. Protocol amendments or amendments to informed consent forms were sent to the Institutional Review Board for approval.

Access to data with participants' protected health information was limited to the investigators, research staff, and the Institutional Review Board. The full protocol may be requested by contacting the principal investigators.

Consent for publication

N/A

Availability of data and material

The datasets generated and/or analyzed during the current study and the analytic code are available from the corresponding author on reasonable request.

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**Methods**—We randomized a low-income population of 182 hospitalized patients (mean age 58 years, 45% with high school education or less) to enhanced usual care, which included hospital-directed cessation care and Quitline referral, or enhanced usual care plus financial incentives. All patients received enhanced usual care, while participants randomized to the financial incentives group were also eligible to receive up to \$550 for participation in Quitline counseling (\$50), participation in a community-based cessation program (\$50), use of pharmacotherapy (\$50), and biochemically-confirmed smoking cessation at 2 months (\$150) and 6 months (\$250). Primary outcome was biochemically-confirmed smoking cessation at 6 months after hospital discharge.

**Results**—Total mean payment was \$84 (SD=\$133) in the incentive group. The 6-month rate of biochemically-confirmed smoking cessation was 19.6% in the incentive group and 8.9% in the enhanced usual care group (odds ratio, 2.56; 95% CI, 0.84 to 7.83, P=0.10). Participants in the incentive group had higher rates of nicotine replacement therapy use (57.3% versus 31.3%, P=0.002).

Financial incentives did not improve subjective social status but did increase financial stress.

**Conclusions**—Rates of bioconfirmed smoking cessation were higher among hospitalized patients randomized to financial incentives compared to usual care alone, but the difference was not significant. Considering the frequency of low payouts and the importance of assistance for successful quitting, future studies should explore the effectiveness of financial incentives sufficiently large to overcome barriers to evidence-based therapy.

### Keywords

FIESTA; Smoking Cessation; Manhattan VA Hospital; Financial Incentives; Veterans

## BACKGROUND

Smoking is the leading preventable cause of death and disease in the United States,<sup>1,2</sup> and hospitalized patients who continue to smoke after discharge face higher risks of adverse health events compared to patients who quit.<sup>3–5</sup> Prior studies of smoking cessation interventions have demonstrated that intensive counseling in the inpatient setting followed by supportive contact after discharge is effective, and evidence is also growing for pharmacotherapy-based approaches.<sup>6–8</sup> Nonetheless, most smokers continue to smoke after discharge,<sup>6,9</sup> and smokers often encounter substantial socioeconomic barriers that undermine the perceived feasibility of successful cessation.<sup>10</sup> Moreover, smoking worsens health disparities and is associated with economic disparities.<sup>11–14</sup> In light of these challenges, financial incentives designed to increase use of evidence-based therapy and promote abstinence—particularly when leveraging concepts from behavioral economics<sup>15–20</sup>—may improve health while simultaneously ameliorating economic challenges more prevalent among smokers.<sup>21–24</sup> The Financial IncEntives for Smoking TreAtment (FIESTA) trial aimed to test the effectiveness of financial incentives for increasing evidence-based therapy and smoking cessation among hospitalized patients.

## METHODS/DESIGN

### Overall Design

We performed a randomized, controlled trial to compare the effects of two strategies—financial incentives plus enhanced usual care versus enhanced usual care alone—on smoking cessation and use of evidenced-based smoking cessation therapy among hospitalized patients. The protocol was approved by the institutional review board and a description of study procedures is available.<sup>25</sup> The trial was funded by the Robert Wood Johnson Foundation (Grant 74140) and NIH (K24 DA038345).

### Study Population

We enrolled hospitalized participants from the Veterans Affairs (VA) New York Harbor Healthcare System's Manhattan campus from July 15, 2015 until March 27, 2018. Hospitalized patients were eligible for enrollment if they were at least 18 years old, smoked tobacco during the 30 days prior to hospitalization, had an active U.S. phone number, resided in the New York City area or had the ability to return to the Manhattan VA for at least one year, were contemplating smoking cessation as assessed by readiness to quit,<sup>26</sup> and were able to provide consent in English. We excluded patients who had an anticipated discharge to an institution (i.e., a nursing home or long-term care facility) at which the patient would be subject to restrictions on smoking.

### Randomization

Participants were randomized to financial incentives plus enhanced usual care or enhanced usual care alone with an allocation ratio of 1:1. We employed a computer-generated block randomization design, and research staff implemented the allocation sequence using numbered, sealed opaque envelopes.

### Interventions

All participants received enhanced usual care, which included hospital-directed tobacco-use screening, counseling, education, and pharmacotherapy, all at the discretion of nursing and physician staff, and referral to a state Quitline (this component represented the enhancement). In addition to enhanced usual care, smokers randomized to financial incentives were also eligible to receive up to \$550 for participating in counseling (both community-based counseling and state Quitline counseling), using smoking cessation pharmacotherapy, and achieving biochemically-confirmed smoking cessation at 2 months (expired carbon monoxide [CO] or salivary cotinine) and 6 months (salivary cotinine only) (Table 1).

The incentive intervention used goal-directed incentives (incentives weighted toward use of evidence-based therapies) and outcome-based incentives (incentives for successful achievement of an outcome, like successfully quitting).<sup>27</sup> The first follow-up time point was early, at 2 weeks, because we found in a previous trial that smokers who abstain from tobacco during a hospitalization often relapse within the first 2 weeks of hospital discharge.<sup>8</sup>

All participants were compensated in U.S. dollars (USD) using ClinCards, a secure prepaid debit card system. To ensure that participants comprehended the targets for which they were being incentivized, we used the teach-back method, in which study participants are asked to repeat task-specific directions to staff in order to confirm understanding.<sup>28</sup>

## Measures and Outcomes

Participants completed a baseline interview at the time of enrollment and follow-up interviews at 2 weeks, 2 months, 6 months, and 12 months. Baseline measures included sociodemographic characteristics; smoking history (i.e., smoking habits and home environment using items adapted from the California Tobacco Survey,<sup>29</sup> nicotine dependence,<sup>30</sup> and smoking cessation services received); exercise and nutrition habits; financial stress<sup>31</sup>; subjective social status<sup>32</sup>; quality of life based on the Veterans RAND 12-item Health Survey<sup>33</sup> and the EuroQol-5D<sup>34,35</sup>; alcohol and substance use<sup>36–38</sup>; and healthcare utilization in the prior 6 months. The follow-up surveys also measured self-reported smoking cessation, quit attempts, use of nicotine replacement therapy (NRT)/pharmacotherapy, Quitline counseling participation, and use of e-cigarettes. Each participant received \$20 after completing a follow-up survey and \$50 after providing saliva samples.

## Outcomes

The primary outcome was tobacco abstinence at 6 months after hospital discharge, defined as self-reported abstinence from cigarettes for at least 7 days before the 6-month follow-up interview and biochemical confirmation using salivary cotinine, a nicotine metabolite. Bioconfirmation was performed with Accutest® NicAlert™ strip kits; a cotinine concentration < 10 ng per milliliter was considered to indicate smoking cessation.<sup>39,40</sup> Use of e-cigarettes was not considered use of cigarettes in determination of the primary outcome. Participants also underwent measurement of expired air carbon monoxide (with Covita piCO + Smokerlyzer). At the 2-month follow-up interview, a carbon monoxide level ≥ 6 ppm among participants still using NRT was also considered to indicate smoking cessation. All bioconfirmation was performed in-person, usually at the hospital. We also assessed use of evidence-based tobacco therapy, including the Quitline and pharmacotherapy, and verified NRT and community-based counseling with receipts, letters from counselors, used products, and EHR records.

## Statistical Analysis

All analyses were performed using an intent-to-treat approach. We summarized participants' characteristics by group and compared use of evidence-based smoking cessation therapy using 2-sample t tests and Chi-squared tests. The primary analysis compared the difference in biochemically-confirmed smoking cessation rates between the incentive group and the enhanced usual care group at 6-month follow-up. As pre-specified in our protocol, this analysis was performed with multiple imputation.<sup>41</sup> Multiple imputation by chained equations (MICE) was used with logistic regression models for smoking cessation status. We imputed 50 datasets to account for the proportion of missing outcome data.<sup>42,43</sup> We then estimated the intervention effect using a logistic regression model with adjustment for a diagnosis of substance abuse because of the baseline between-group difference in prevalence.

For the power calculation, we estimated a sample of 182 hospitalized smokers would provide at least 80% power to detect a 20% absolute between-group difference in cessation rates, with 10% loss-to-follow-up rate at 6 months and  $\alpha=0.05$ . A 2-sided P value of less than 0.05 was considered statistically significant. All analyses were performed using Stata (version 14, College Station, Texas).

## RESULTS

### Study Population

Overall, 182 hospitalized patients were enrolled (Figure 1). The proportion of patients who completed 6-month follow-up was 72% in the financial incentive group and 78% in the enhanced usual care group.

### Participant Characteristics

The mean age of patients was 58 years, 95% of the patients were male, 27% were Hispanic, 41% were non-Hispanic black, and 45% had a high school education or less (Table 2). Participants reported smoking an average of 11 cigarettes per day (SD=8). The proportion of participants who were employed was 16% and 47% of participants reported being not at all satisfied with their financial status. In assessments of subjective social status, the mean score was 5.0 when socioeconomic status was compared to the general U.S. population and 6.1 when socioeconomic status was compared to participants' communities (on a 1 to 10 scale, with 10 representing the highest status). Smoking-related comorbidities or mental health comorbidities included coronary heart disease in 18% of participants, chronic obstructive pulmonary disease in 25% of participants, alcohol abuse in 45%, and other current substance abuse in 51%. Median length of stay during the hospitalization was 6.5 days (interquartile range, 4 to 19 days).

### Smoking Cessation

The 6-month rate of smoking cessation, based on biochemical confirmation, was 19.6% in the financial incentive group and 8.9% in the enhanced usual care group (odds ratio, 2.56; 95% confidence interval [CI], 0.84 to 7.83,  $P=0.10$ ) (Table 3). The rate of self-reported smoking cessation was 54.7% in the financial incentive group and 37.1% in the enhanced usual care group ( $P=0.042$ ). Saliva samples were not submitted for biochemical confirmation by 21.3% of patients who self-reported smoking cessation, and this difference was not significant between groups ( $P=0.732$ ). We found no evidence for an interaction between the intervention effect and measures of financial stress or socioeconomic status.

### Incentive Payments and Socioeconomic Measures

Participants in the financial incentive group received a total mean payment of \$84 (SD=\$133). This included \$36 in incentive payments for goal-directed activities (e.g., speaking with a Quitline coach, completing a community-based smoking cessation program, and using cessation pharmacotherapy) and \$48 for outcome-based activities (i.e., smoking cessation with biological confirmation). The proportion of patients in the financial incentive group receiving no incentives was 49%. Three patients received at least \$500 in incentives

(3.3%), 6 patients received at least \$400 (6.7%), and 15 patients received at least \$200 (16.7%).

There were no significant differences in participants' reports of subjective social status at 6-month follow-up (scores relative to US population [P=0.75] and to the local community [P=0.50] were 4.8 and 5.8 in the financial incentive group versus 4.9 and 5.5 in the enhanced usual care group, respectively). Financial stress increased in the incentive group at 6-month follow-up compared to the enhanced usual care group (mean financial stress score of 3.17 versus 2.84, P=0.019), and this difference was attributable to higher financial stress reported by participants in the incentive group who did not achieve smoking cessation (mean financial stress score of 3.23, P=0.009 compared to enhanced usual care). Participants who did successfully quit smoking and earned the 6-month smoking cessation incentive did not report higher financial stress (mean financial stress score of 2.84, P=0.995 compared to enhanced usual care).

### Use of Evidence-based Smoking Cessation Therapy

At 2-week follow-up, smoking cessation therapy rates were verified by study staff using New York State Quitline reports, medication prescription records, medication receipts, or other documentation provided by patients (Table 4). Participants in the incentive group were more likely to use NRT by 2 weeks (P=0.002) and no patients reported using varenicline at 2 weeks. By 6 months, 3 patients in the financial incentive group and 1 patient in the enhanced usual care reported using varenicline. There was no significant difference in Quitline use (44% vs 42%) or participation in community-based smoking cessation programs (4% vs. 0%) at 2-week follow-up between the incentive and enhanced usual care groups, respectively. The proportion of patients reporting use of e-cigarettes at 6-month follow-up was 11.11% in the financial incentive and 7.14% in the enhanced usual care group.

## DISCUSSION

We found that rates of bioconfirmed smoking cessation were higher among hospitalized patients randomized to financial incentives compared to hospitalized patients receiving enhanced usual care alone, but the difference was not significant. Financial incentives did increase self-reported smoking cessation and the rate of early NRT use in this patient population. Rates of other activities linked to incentives, including Quitline participation, were not significantly increased by financial incentives. To the best of our knowledge, this is the first clinical trial to evaluate the effectiveness of financial incentives for smoking cessation in a hospitalized patient population.

We designed FIESTA to improve health through increased smoking cessation and to improve economic well-being through substantial cash payments for healthy goal achievement. For these reasons, we purposely targeted a relatively low-income population, with the expectation that the marginal benefits of incentives would be larger. While patients could earn up to \$550 in incentive payments over a 6-month period (likely representing a significant proportion of annual income for some of the participants), the mean payment in the financial incentive arm was a modest \$84, and fewer than 1 in 10 patients earned at least \$400. In light of this finding and the overall low rates of evidence-based smoking cessation

therapy, it may have been beneficial to provide larger incentives for use of Quitline counseling and effective pharmacotherapy—particularly varenicline. Smokers often have preferences against using counseling or pharmacotherapy, and may cite concerns about side effects or overestimate their likelihood of successfully quitting without assistance.<sup>44–48</sup> Financial incentives that are sufficiently large—in combination with behavioral economic strategies—may help more smokers overcome these barriers to evidence-based therapy.

Among patients earning higher incentives, financial stress at 6 months was unchanged compared to patients receiving enhanced usual care, but financial stress worsened among patients earning lower incentives or no incentives. This finding suggests that randomization to a financial incentive arm may have altered perceptions of financial stress adversely when patients had an opportunity to earn large incentives but were unsuccessful. Alternatively, the finding may have been due to chance, and analogous evaluations in other financial incentive studies will be informative. If this finding is reproduced, strategies to mitigate it should be developed.

A major unanswered question in the financial incentive literature is whether to use goal-directed incentives (incentives for use of evidence-based therapies, which are widely underutilized) or outcome-based incentives (incentives for successful achievement of an outcome, like successfully quitting) for health improvement.<sup>27,48</sup> Most smoking cessation studies applying incentives have primarily targeted the outcome of smoking cessation. However, if incentives can be used to steer patients toward evidence-based therapies that also increase intrinsic motivation (e.g., motivational interviewing or successful use of pharmacotherapy),<sup>49,50</sup> concerns that incentives engage extrinsic motivation at the expense of intrinsic motivation may be attenuated. The optimal design is unknown.

One major concern about financial incentives for smoking cessation is their long-term efficacy, with critics noting that financial incentives (extrinsic motivation) may crowd out intrinsic motivation<sup>51,52</sup> and undermine durable smoking cessation. Others have noted, however, that levels of intrinsic motivation for activities we incentivize may already be low, leaving little motivation at risk for crowd out.<sup>53</sup> The possibility that successfully quitting smoking itself may increase self-efficacy and intrinsic motivation further complicates the intrinsic-extrinsic motivation dynamic in the context of tobacco use.<sup>49,50</sup> Our perspective is that the addiction component of smoking makes this particular habit amenable to incentives, whereas other activities, such as healthy eating or exercise, typically require more sustained, ongoing engagement and may be less amenable to incentives. Empirically, at least two randomized trials support durability of financial incentives for smoking cessation. In a study of 878 employees, Volpp et al followed smokers for 15 to 18 months and found that rates of smoking cessation at this point—up to 9 months after financial incentives were stopped—were higher in the incentive arm than the control arm.<sup>21</sup> In a second study conducted outside of the workplace and involving 805 low-income smokers, continuous abstinence at 18 months—12 months after incentives ended—occurred at a higher rate in the incentive group than the control group.<sup>54</sup>

FIESTA has limitations. Based on the observed findings, the study had less power than we anticipated to detect a significant effect of incentives on bioconfirmed smoking cessation.

FIESTA also enrolled from a VA hospital and more than 90% of our patients were male; it is unclear whether the study findings generalize to women. Patients in the VA also experience relatively high rates of post-traumatic stress disorder, depression, and other mood disorders that are associated with nicotine addiction and may decrease the likelihood of successful cessation.

FIESTA demonstrated that financial incentives for smoking cessation may be a promising adjunct to usual care among hospitalized patients with lower levels of income. Differences in bioconfirmed smoking cessation rates between the financial incentive and enhanced usual care groups were large but did not meet statistical significance. Future studies of financial incentives that similarly target a low-income population and potentially increase the incentive size for evidence-based smoking cessation therapy may improve the health and economic status of patients.

## Acknowledgements

We thank our research staff for their many contributions to the study: Katherine French, Sasha Gonzalez, Amy Chen, Alissa R. Link, Sadozai Zoe Malik, Saahil Jumkhwala, Briesny Tejada, and Andrew White. Not least of all, we thank our patients who generously participated in the study.

### Funding

This study is funded by the Robert Wood Johnson Foundation (Grant 74140) (Drs. Ladapo and Sherman) and NIH K24 DA038345 (Dr. Sherman). The funding sources were not involved in the design of the study or collection, analysis, or interpretation of data or in writing the manuscript.

**Funding:** Robert Wood Johnson Foundation (Grant 74140) and NIH K24 DA038345

**Primary Funding Source-**Robert Wood Johnson Foundation (Grant 74140) and NIH (K24 DA038345).

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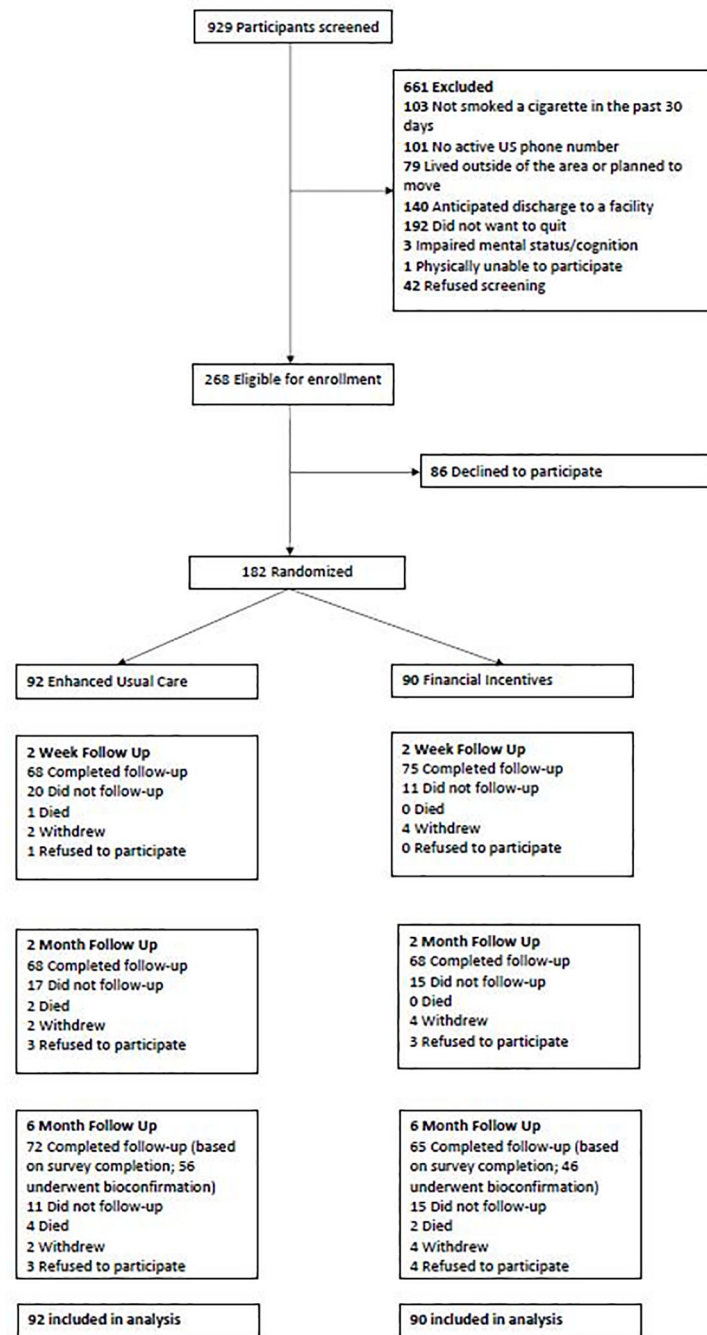
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### Clinical Significance

- Among hospitalized smokers, financial incentives totaling up to \$550 (actual mean payment \$84) increased 6-month biochemically-confirmed smoking cessation to 19.6% versus 8.9% among controls, but the difference was not significant.
- Financial stress increased in the incentive group except among high incentive earners
- To increase cessation rates and ameliorate economic burdens among hospitalized smokers, incentives need to be larger, more attainable, and more directed toward incentivizing evidence-based therapy.



**Figure.**  
Screening, Enrollment, and Follow-up of Study Participants

**Table 1.**

## Schedule of Incentives for Participants Randomized to Financial Incentive Group

<b>Activity</b>	<b>Time After Hospital Discharge</b>	<b>Incentive</b>
Speaking with a coach from the New York Smoker's Quitline	2 weeks	\$50
Completion of community-based smoking cessation program	2 weeks	\$50
Use of pharmacotherapy for smoking cessation	2 weeks	\$50
Smoking cessation (bioconfirmed)*	2 months	\$150
Smoking cessation (bioconfirmed)*	6 months	\$250

\* We considered participants to be abstinent at 2 months and 6 months if they self-reported abstinence from cigarettes for at least 7 days before the interview and had biochemical confirmation using salivary cotinine

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**Table 2**

## Characteristics of Study Participants

Characteristic	Enhanced Usual Care Group (N=92)	Financial Incentive Group (N=90)	P Value
Mean age (yr)	56.8	59.2	0.165
Male sex (%)	94.6	94.4	0.971
Race/ethnicity (%) <sup>*</sup>			
White, non-Hispanic	22.8	17.8	
Black, non-Hispanic	40.2	42.2	
Hispanic	28.3	25.6	
Other or unknown	8.7	14.4	0.564
Education (%) <sup>†</sup>			
High school or lower	42.9	47.8	
Some college	50.6	42.2	
College graduate	6.6	10.0	0.460
Employed outside home (%)	15.2	16.7	0.789
Married (%)	17.4	14.4	0.587
Financial satisfaction (%) <sup>†</sup>			
Not at all satisfied	46.2	48.3	
More or less satisfied	33.0	38.2	
Satisfied	20.9	13.5	0.402
Mean financial stress <sup>‡</sup>	2.9	2.9	1.0
MacArthur Scale of Subjective Social Status <sup>‡§</sup>			
Score relative to US population	5.2	4.8	0.252
Score relative to community	6.3	6.0	0.544
Housing			
Low-income housing	34.8	43.3	
Non-low-income housing	50.0	41.1	
Homeless	4.4	5.6	
Other or unknown	10.9	10.0	0.613
Smoking habits			
Mean cigarettes per day	11.8	11.1	0.540
Electronic cigarette use (%) <sup>¶</sup>	14.1	14.4	0.952
Illicit drug use (including marijuana) (%) <sup>//</sup>	55.4	57.8	0.750
Prescription drug use recreationally (%) <sup>//</sup>	22.8	22.2	0.922
Self-reported health habits <sup>**</sup>			
Mean days per week of exercise	4.1	4.1	0.830
Healthy diet (%)	70.9	73.8	0.687
Comorbidities (%)			
Hypertension	54.4	52.2	0.774
Diabetes	25.0	26.7	0.797
Dyslipidemia	23.9	31.1	0.277
Peripheral arterial disease	4.4	3.3	0.722
Cerebrovascular disease	4.4	5.6	0.707

Characteristic	Enhanced Usual Care Group (N=92)	Financial Incentive Group (N=90)	P Value
Coronary heart disease	16.3	18.9	0.647
Congestive heart failure	6.5	6.7	0.969
Chronic obstructive pulmonary disease	25.0	25.6	0.931
Cancer	12.0	11.1	0.858
Depression	39.1	36.7	0.732
Alcohol abuse/dependence	40.2	50.0	0.185
Substance abuse/dependence	43.5	58.9	0.038
Surgical history (%)			
Coronary angioplasty	1.1	3.3	0.301
Coronary artery bypass grafting	2.2	4.4	0.391
Peripheral vascular angioplasty/bypass	3.3	0.0	0.084
Inpatient smoking cessation pharmacotherapy (%)			
Nicotine replacement therapy	55.4	53.3	0.776
Varenicline	0.0	0.0	-
Bupropion	1.1	1.1	0.988
Smoking cessation pharmacotherapy prescribed at discharge(%)			
Any pharmacotherapy	45.7	46.7	0.891
Nicotine replacement therapy	43.5	45.6	0.778
Varenicline	0.0	0.0	-
Bupropion	4.4	1.1	0.182

\* Race and ethnicity were self-reported

<sup>†</sup> One participant in the usual care group did not report education, 1 participant in each group did not report financial satisfaction, 2 participants in each group did not report social status relative to US, and 4 participants in the usual care group and 2 participants in the incentives group did not report social status relative to their community

<sup>‡</sup> The Financial Stress Questionnaire has a range of 1 to 5, with higher scores indicating more financial stress.

<sup>§</sup> The MacArthur Scale of Subjective Social Status has a range of 1 to 10, with higher scores indicating higher self-reported social status

<sup>¶</sup> Any use in past 1 month

<sup>//</sup> Any use in past 12 months

\*\* Self-reported exercise was available from 81 participants in the usual care group and 79 participants in the incentive group. Self-reported consumption of a healthy diet was available from 79 participants in the usual care group and 80 participants in the incentive group. These questions were added to the study after 21 patients were already enrolled.

Note: Standard deviations for continuous measures in enhanced usual care and financial incentive group are, respectively: age 13.1 and 10.2, financial stress 1.0 and 1.1, cigarettes per day 8.0 and 8.0, days per week of exercise 2.8 and 2.9



**Table 3.**

## Smoking Cessation After Hospital Discharge

Smoking Cessation*	Enhanced Usual Care Group (N=92)		Financial Incentive Group (N=90)		P Value
	n/N	Percent	n/N	Percent	
Smoking cessation at 2 weeks (%)					
Self-reported	27/67	40.3	35/75	46.7	0.445
Smoking cessation at 2 months (%)					
Self-reported	24/65	36.9	40/68	58.8	0.012
Bioconfirmed	12/48	25.0	14/40	35.0	0.306
No saliva sample submitted <sup>†</sup>	7/24	29.2	16/40	40.0	0.382
Positive saliva sample submitted <sup>‡</sup>	5/24	20.8	10/40	25.0	0.703
Smoking cessation at 6 months (%) <sup>‡</sup>					
Self-reported	26/70	37.1	35/64	54.7	0.042
Bioconfirmed	5/56	8.9	9/46	19.6	0.103
No saliva sample submitted <sup>†</sup>	5/26	19.2	8/35	22.9	0.732
Positive saliva sample submitted <sup>‡</sup>	16/26	61.5	18/35	51.4	0.432

\*The denominator for self-reported smoking cessation indicates the number of participants who completed follow-up at each time point. The denominator for bioconfirmation indicates the number of participants who submitted a saliva sample or provided expired CO

<sup>†</sup>Among participants with self-reported smoking cessation

<sup>‡</sup>P value for bioconfirmed smoking cessation at 6 months based on logistic regression model with multiple imputation for missing smoking cessation values

Note: At 6 months, 72 patients in the enhanced usual care group and 65 patients in the financial incentive group participated in the phone survey. Of these patients, 2 patients in the enhanced usual care group and 1 patient in the financial incentive group did not respond to questions about current smoking. After the 6 month phone survey, 56 patients in the enhanced usual care group and 46 patients in the financial incentive group subsequently presented for bioconfirmation.

**Table 4.**

## Use of Evidence-based Smoking Cessation Therapy After Hospital Discharge

Evidence-based therapy*	Enhanced Usual Care Group (N=92)		Financial Incentive Group (N=90)		P Value
	n/N	Percent	n/N	Percent	
Quitline participation (%)					
At 2 week follow-up (verified)	39/92	42.4	40/90	44.4	0.780
At 6 month follow-up	41/69	59.4	46/63	73.0	0.100
Smoking cessation community-based program (%)					
At 2 week follow-up	0/67	0.0	3/75	4.0	0.098
At 6 month follow-up	2/69	2.9	5/64	7.8	0.205
Nicotine replacement therapy (%)					
At 2 week follow-up (self-reported)	24/67	35.8	45/75	60.0	0.004
At 2 week follow-up (verified)	21/67	31.3	43/75	57.3	0.002
At 6 month follow-up	38/69	55.1	44/64	68.8	0.105
Varenicline therapy (%)					
At 2 week follow-up	0/67	0.0	0/75	0.0	-
At 6 month follow-up	1/69	1.5	3/64	4.7	0.275
Bupropion therapy (%)					
At 2 week follow-up	0/67	0.0	0/75	0.0	-
At 6 month follow-up	1/69	1.5	1/64	1.6	0.957

\* The denominator indicates the number of participants who completed follow-up at each time point. One participant in the enhanced usual care group completed 6 month follow-up but did not respond to questions about smoking cessation therapy and was not included in the denominator