

# Financial Strain and Smoking Cessation Among Racially/Ethnically Diverse Smokers

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An estimated 30.6% of US adults living in poverty smoke cigarettes, as compared with 20.4% of those living above the poverty level.<sup>1</sup> Current economic conditions in the United States will likely lead to increased financial strain for many smokers, particularly those of low socioeconomic status (SES). The ongoing global financial crisis and economic recession are expected to force millions of Americans into poverty as a result of increased unemployment rates and reduced availability of government assistance.<sup>2</sup>

Furthermore, the increases in the US federal excise tax on tobacco implemented in April 2009, in combination with existing state tobacco excise taxes, have resulted in a significant rise in the cost of cigarettes. Although increases in cigarette pack prices have historically contributed to reductions in smoking prevalence rates, research suggests that increased taxation has had a declining influence on smoking in recent years.<sup>3</sup> Moreover, there is evidence that increases in cigarette prices are associated with the purchase of cigarettes with higher tar and nicotine yields.<sup>4</sup>

There is emerging evidence that financial strain may have an undesirable impact on tobacco use. Specifically, financial strain is associated with current smoking as well as greater daily cigarette consumption and smoking relapse.<sup>5,6</sup> Furthermore, smokers and individuals living in smoking households report greater financial strain than nonsmokers and those living in nonsmoking households.<sup>7,8</sup> The expense of smoking has been shown to “crowd out” other expenditures, including those associated with basic necessities.<sup>9,10</sup> Plausibly, this situation may lead to further increases in both financial strain and cigarette smoking. Thus, the current economic climate has made it increasingly important to characterize the association between financial strain and smoking, particularly within low-SES populations.

Although a link between financial strain and smoking prevalence has been established, little

**Objectives.** We evaluated the influence of financial strain on smoking cessation among Latino, African American, and Caucasian smokers of predominantly low socioeconomic status.

**Methods.** Smokers enrolled in a smoking cessation study (N=424) were followed from 1 week prequit through 26 weeks postquit. We conducted a logistic regression analysis to evaluate the association between baseline financial strain and smoking abstinence at 26 weeks postquit after control for age, gender, race/ethnicity, educational level, annual household income, marital status, number of cigarettes smoked per day, and time to first cigarette of the day.

**Results.** Greater financial strain at baseline was significantly associated with reduced odds of abstinence at 26 weeks postquit among those who completed the study (odds ratio [OR]=0.77; 95% confidence interval [CI]=0.62, 0.94; *P*=.01). There was a significant association as well in analyses that included those who completed the study in addition to those lost to follow-up who were categorized as smokers (OR=0.78; 95% CI=0.64, 0.96; *P*=.02).

**Conclusions.** Greater financial strain predicted lower cessation rates among racially/ethnically diverse smokers. Our findings highlight the impact of economic concerns on smoking cessation and the need to address financial strain in smoking cessation interventions. (*Am J Public Health.* 2010;100:702–706. doi: 10.2105/AJPH.2009.172676)

is known about the impact of financial strain on smoking cessation. Low-SES smokers are as likely as smokers of higher SES to attempt smoking cessation, but they are less likely to quit successfully.<sup>11</sup> The economic recession and increased taxation on cigarettes may place a disproportionate financial burden on low-SES smokers, who may have difficulty quitting as a result of high levels of nicotine dependence,<sup>12</sup> reduced access to smoking cessation resources,<sup>13</sup> and a variety of other factors.

Recent findings from a large-scale national study in Australia indicated that smokers facing greater financial strain were less likely to quit smoking over a 1-year period, and financially strained ex-smokers were more likely to relapse over 1 year.<sup>14</sup> In another study, ex-smokers were more likely to relapse after an involuntary job loss (possibly indicating greater financial strain).<sup>5</sup> However, little is known about the impact of financial strain on a specific quit attempt among smokers receiving smoking cessation treatment. Studies have indicated that

financial strain decreases after smoking cessation and that quitters experience less financial strain than those who have not quit.<sup>15,16</sup> Thus, quitting may attenuate smoking-related financial strain among low-SES smokers.

In this study, we sought to characterize the influence of financial strain on smoking cessation among smokers of primarily low SES and diverse racial/ethnic backgrounds. We hypothesized that smokers who reported greater financial strain prior to the initiation of smoking cessation treatment would have lower cessation rates. To the best of our knowledge, this is the first study to examine the impact of financial strain on smoking cessation during a specific quit attempt in a racially/ethnically diverse sample of smokers.

## METHODS

Our data were collected as part of a longitudinal cohort study (Project CARE), conducted between 2005 and 2007, that included

**TABLE 1—Participant Characteristics, by Sample: Project CARE, Houston, TX, 2005–2007**

| Characteristic                           | Completer Sample <sup>a</sup> (n = 320) |       | Intent-to-Treat Sample <sup>b</sup> (n = 372) |       |
|--|---|-------|---|-------|
|  | % or Mean (SD)                          | Range | % or Mean (SD)                                | Range |
| Age, y                                   | 42.1 (10.6)                             | 21–70 | 41.6 (10.9)                                   | 21–73 |
| Gender                                   |   |       |   |       |
| Female                                   | 53.8                                    |       | 52.7  |       |
| Male                                     | 46.2                                    |       | 47.3  |       |
| Race/ethnicity                           |   |       |   |       |
| African American                         | 35.9                                    |       | 35.5  |       |
| Latino                                   | 30.0                                    |       | 31.7  |       |
| Caucasian                                | 34.1                                    |       | 32.8  |       |
| Marital status                           |   |       |   |       |
| Married or living with significant other | 35.6                                    |       | 34.1  |       |
| Single, separated, divorced, or widowed  | 64.4                                    |       | 65.9  |       |
| Education                                |   |       |   |       |
| < High school                            | 13.4                                    |       | 14.0  |       |
| High school                              | 27.5                                    |       | 27.4  |       |
| Some college                             | 31.3                                    |       | 31.2  |       |
| Vocational/college degree                | 27.8                                    |       | 27.4  |       |
| Annual household income, \$              |   |       |   |       |
| < 10 000                                 | 28.7                                    |       | 29.6  |       |
| 10 000–29 999                            | 24.7                                    |       | 23.9  |       |
| 30 000–49 999                            | 24.1                                    |       | 23.9  |       |
| ≥ 50 000                                 | 22.5                                    |       | 22.6  |       |
| No. of cigarettes smoked per day         | 21.2 (10.0)                             | 5–80  | 21.2 (10.4)                                   | 5–80  |
| Time to first cigarette of the day, min  |   |       |   |       |
| ≤ 5                                      | 48.4                                    |       | 47.6  |       |
| 6–30                                     | 29.1                                    |       | 28.2  |       |
| 31–60                                    | 10.6                                    |       | 12.4  |       |
| > 60                                     | 11.9                                    |       | 11.8  |       |
| Financial strain score                   | 15.5 (4.7)                              | 8–24  | 15.5 (4.8)                                    | 8–24  |

<sup>a</sup>Included participants who provided complete smoking status data at the baseline and 26-week visits, as well as those who were known to have relapsed at any visit prior to 26 weeks postquit.

<sup>b</sup>Included all participants in the completer sample in addition to participants who did not provide data at the 26-week postquit follow-up visit (i.e., participants with missing data).

individuals recruited from the Houston, Texas, metropolitan area. The study was designed to examine the influence of social determinants, including race/ethnicity, on the process of smoking cessation. All participants received a smoking cessation treatment that included nicotine patch therapy, self-help materials, and counseling. Participants were followed from 1 week before their quit date through 26 weeks postquit.

### Participants

Individuals were eligible to participate if they were aged 21 years or older, had smoked

5 or more cigarettes per day during the previous year, were motivated to quit within 30 days, had a home address and a functioning home telephone number, and were able to understand English at a 6th-grade literacy level. Individuals were excluded from the study if they reported regular use of tobacco products other than cigarettes, used bupropion or nicotine replacement products other than the nicotine patches supplied by the study, had another household member enrolled in the study, had participated in a smoking cessation program during the previous 90 days, or reported that the nicotine patch supplied was medically

contraindicated. Information on participant recruitment has been presented elsewhere.<sup>17</sup>

Participants were included in completer and intent-to-treat subsets of the sample according to the following criteria. The completer sample included participants who provided complete smoking status data at the baseline and 26-week visits, as well as those who were known to have relapsed at any visit prior to 26 weeks postquit. The intent-to-treat sample included all individuals in the completer sample in addition to participants who did not provide data at the 26-week postquit follow-up visit (i.e., participants with missing data). In accordance with traditional intent-to-treat procedures used in smoking cessation studies, individuals with missing smoking status data were categorized as relapsed (see other recent studies for examples of this approach<sup>18–20</sup>).

### Measures

A baseline self-report questionnaire was used to gather data on demographic (i.e., age, race/ethnicity, gender, and marital status) and socioeconomic (i.e., annual household income and education) characteristics. With regard to race/ethnicity, participants were asked to indicate whether they were of Hispanic/Latino origin and to choose the designation that best described their race from the following categories: Anglo American/Euro American/White, African American/Black, Asian American, native of Hawaii or other Pacific Islander, Native American or Alaska Native, mixed race, or other. They also had the option of not responding to this question. Another baseline self-report questionnaire gathered information on tobacco use characteristics, including years of smoking, number of cigarettes smoked per day, and time to first cigarette of the day.

A financial strain questionnaire (adapted from an economic strain measure<sup>21</sup>) assessed participants' difficulty at baseline with respect to affording food, clothing, housing, major items (e.g., car), furniture, leisure activities, and bills. Participants' financial status at the end of the month was also assessed. Items were rated on a scale from 1 to 3 (e.g., no difficulty, some difficulty, great difficulty). Total scores could range from 8 to 24, with higher scores indicating greater financial strain.

Abstinence, assessed at 26 weeks postquit, was defined as a self-report of abstinence from

smoking without any lapses during the 26 weeks following the quit date, accompanied by either an expired carbon monoxide level below 10 parts per million or a salivary cotinine level below 20 ng/ml at 26 weeks postquit. Participants who self-reported a lapse or had carbon monoxide or cotinine levels inconsistent with abstinence were considered relapsed.

### Data Analyses

PASW Statistics software version 17 (SPSS Inc, Chicago, IL) was used to conduct logistic regression analyses evaluating the association between baseline financial strain and abstinence at 26 weeks postquit. Age, gender, race/ethnicity, educational level, annual household income, marital status, cigarettes smoked per day, and time to first cigarette of the day were included as covariates in the model. Given the conceptual and empirical links between the covariates and smoking cessation outcomes, interactions between each covariate and financial strain were tested separately with all other covariates controlled. Analyses were conducted with the completer and intent-to-treat subsets of the sample.

### RESULTS

A total of 424 individuals were enrolled in the study; as a result of missing covariates or failure to complete the study, only 320 (75.5%) of these individuals were included in the completer analyses (Table 1). Missing data were primarily due to failure to report income ( $n=49$ ) or failure to provide smoking-related follow-up data at 26 weeks postquit ( $n=62$ ). A total of 4.7% ( $n=15$ ) of the participants who completed the study maintained abstinence for the 26 weeks following the quit date.

The logistic regression analysis indicated that baseline financial strain significantly predicted lower rates of abstinence at 26 weeks postquit after control for age, gender, race/ethnicity, education, annual household income, marital status, cigarettes per day, and time to first cigarette of the day ( $P=.01$ ; Table 2). The odds of abstinence decreased significantly with each 1-point increase in financial strain score (odds ratio [OR]=0.77; 95% confidence interval [CI]=0.62, 0.94; interaction terms were not included in the model). None of the covariates were statistically significant predictors of smoking abstinence in the model.

**TABLE 2—Results of Logistic Regression Analyses of the Relationship Between Financial Strain and Smoking Abstinence: Project CARE, Houston, TX, 2005–2007**

| Characteristic                                | Completer Sample <sup>a</sup> (n = 320) |     | Intent-to-Treat Sample <sup>b</sup> (n = 372) |     |
|---|---|-----|---|-----|
|   | OR (95% CI)                             | P   | OR (95% CI)                                   | P   |
| Age, y  | 1.02 (0.96, 1.08)                       | .60 | 1.02 (0.96, 1.07)                             | .59 |
| Gender  |   |     |   |     |
| Female  | 1.43 (0.41, 4.96)                       | .58 | 1.43 (0.43, 4.74)                             | .56 |
| Male (Ref)                                    | 1.00                                    |     | 1.00  |     |
| Race/ethnicity                                |   | .73 |   | .73 |
| African American                              | 1.83 (0.39, 8.55)                       | .45 | 1.84 (0.41, 8.30)                             | .43 |
| Latino  | 1.53 (0.30, 7.74)                       | .61 | 1.34 (0.28, 6.35)                             | .72 |
| Caucasian (Ref)                               | 1.00                                    |     | 1.00  |     |
| Marital status                                |   |     |   |     |
| Married or living with significant other      | 0.55 (0.14, 2.16)                       | .39 | 0.65 (0.17, 2.46)                             | .52 |
| Single, separated, divorced, or widowed (Ref) | 1.00                                    |     | 1.00  |     |
| Education                                     |   | .70 |   | .78 |
| <High school (Ref)                            | 1.00                                    |     | 1.00  |     |
| High school                                   | 0.43 (0.06, 2.80)                       | .37 | 0.50 (0.08, 3.06)                             | .45 |
| Some college                                  | 0.34 (0.05, 2.25)                       | .26 | 0.44 (0.07, 2.71)                             | .37 |
| Vocational/college degree                     | 0.40 (0.06, 2.54)                       | .33 | 0.41 (0.07, 2.54)                             | .34 |
| Annual household income, \$                   |   | .59 |   | .64 |
| <10 000 (Ref)                                 | 1.00                                    |     | 1.00  |     |
| 10 000–29 999                                 | 0.55 (0.04, 7.04)                       | .64 | 0.66 (0.05, 8.21)                             | .75 |
| 30 000–49 999                                 | 1.74 (0.23, 12.96)                      | .59 | 1.88 (0.25, 14.04)                            | .54 |
| ≥50 000                                       | 3.00 (0.32, 27.68)                      | .33 | 2.97 (0.32, 27.27)                            | .34 |
| No. of cigarettes smoked per day              | 1.04 (0.97, 1.11)                       | .23 | 1.04 (0.98, 1.10)                             | .25 |
| Time to first cigarette of the day, min       |   | .34 |   | .50 |
| ≤5 (Ref)                                      | 1.00                                    |     | 1.00  |     |
| 6–30  | 1.04 (0.21, 5.20)                       | .96 | 1.04 (0.22, 5.01)                             | .96 |
| 31–60   | 3.35 (0.55, 20.23)                      | .19 | 2.41 (0.43, 13.37)                            | .31 |
| >60   | 3.99 (0.58, 27.43)                      | .16 | 3.19 (0.51, 19.88)                            | .21 |
| Financial strain score                        | 0.77 (0.62, 0.94)                       | .01 | 0.78 (0.64, 0.96)                             | .02 |

Note. CI = confidence interval; OR = odds ratio.

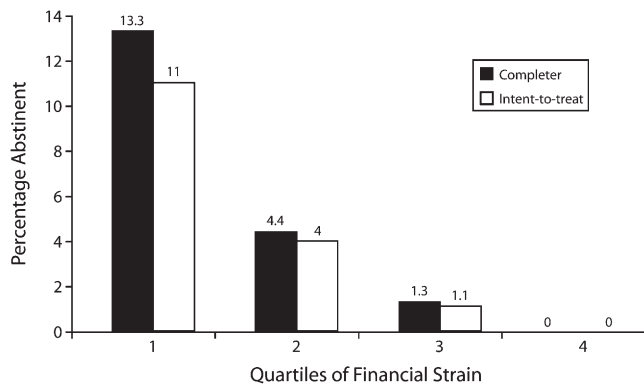
<sup>a</sup>Included participants who provided complete smoking status data at the baseline and 26-week visits, as well as those who were known to have relapsed at any visit prior to 26 weeks postquit.

<sup>b</sup>Included all participants in the completer sample in addition to participants who did not provide data at the 26-week postquit follow-up visit (i.e., participants with missing data).

Abstinence rates for each quartile of financial strain are presented in Figure 1. The interaction between marital status and financial strain was significant ( $P=.04$ ), such that greater financial strain was more strongly associated with lower abstinence rates among single individuals (OR=0.56; 95% CI=0.32, 0.96;  $P=.04$ ) than among those who were married or living with a partner (OR=0.68; 95% CI=0.44, 1.06;  $P=.09$ ). No other significant interactions were observed.

Intent-to-treat analyses yielded similar findings. As a result of missing data on covariates,

only 372 of the 424 participants (87.7%) were included in these analyses (Table 1). Four percent ( $n=15$ ) of the participants included in the intent-to-treat analyses maintained abstinence for the 26 weeks following the quit date. Overall, the findings of the intent-to-treat analyses were similar to those of the completer analyses (Table 2). Again, the interaction between marital status and financial strain was significant ( $P=.04$ ), with greater financial strain being more strongly associated with lower abstinence rates among single individuals (OR=0.63; 95% CI=0.41, 0.96;  $P=.03$ ) than



Note. Financial strain scores are divided into quartiles for illustrative purposes only. A continuous variable was used in all of the statistical analyses. The quartiles depicted are based on the following ranges of financial strain scores: 8–11, 12–15, 16–19, and 20–24.

**FIGURE 1—Percentage of participants who were abstinent at 26 weeks postquit for each financial strain score quartile: Project CARE, Houston, TX, 2005–2007.**

among those who were married or living with a partner (OR=0.72; 95% CI=0.49, 1.06;  $P=.09$ ). No other significant interactions were observed.

## DISCUSSION

In this study evaluating the relationship between financial strain and smoking cessation during a specific quit attempt among individuals of predominantly low SES and diverse racial/ethnic backgrounds, greater financial strain predicted lower abstinence rates at 26 weeks postquit, even after control for the effects of education and income. Our findings are consistent with research indicating that financial stress is associated with both greater difficulty quitting smoking and smoking relapse in the general population.<sup>14</sup>

In addition, marital status moderated the relationship between financial strain and smoking cessation, such that financial strain was more strongly associated with abstinence among single individuals than among those who were married or living with a significant other. Given the large body of research indicating that being married predicts successful smoking cessation,<sup>22–24</sup> the social support that coincides with marriage or living with a significant other may protect against the negative impact of financial strain during a smoking cessation attempt.

It is also notable that participants who were married or living with a significant other had

lower financial strain scores than single participants (means of 14.08 and 16.14, respectively), possibly owing to greater household incomes among those who were married or living with a significant other (median of \$30 000–\$49 999 versus \$10 000–\$29 999). Despite the differences in levels of income and financial strain by marital status, the interaction suggests that comparable levels of financial strain were more likely to be associated with abstinence status among single individuals than among those who were married or living with a significant other.

The current study involved several strengths as well as limitations. As mentioned, this was the first study, to our knowledge, to examine the influence of financial strain on smoking cessation during a specific quit attempt. Other strengths include the prospective design and the inclusion of equal proportions of Latino, African American, and Caucasian participants.

Limitations include the possibility that the most financially strained smokers were excluded from the study because they did not have a home address or functioning telephone number. Also of note is that participants were of predominantly low SES, and thus our findings may not generalize to smokers of higher SES. Conversely, the present results may underestimate the impact of financial strain on smoking cessation given that annual household income was low for most participants (i.e., restriction of range).

Furthermore, our results may not be applicable to smokers of racial/ethnic groups that were not included in our study (e.g., Asians/Pacific Islanders, American Indians). Also, only 15 participants were able to maintain abstinence for 6 months; however, there is evidence of similarly low abstinence rates within other samples of low-SES smokers.<sup>25</sup>

Finally, it is important to acknowledge the possibility of associations between financial strain and other variables not included in our study, such as depression,<sup>26</sup> that may influence smoking cessation outcomes. Overall, our findings underscore the potentially important impact of financial strain on smoking cessation outcomes and may provide a treatment target through which to facilitate behavior change and attenuate health disparities in low-SES populations.

Our results highlight the need to address financial strain in smoking cessation treatment interventions, especially interventions that target smokers of low SES. More research is needed to determine the most effective ways to attenuate the negative effects of financial strain on smoking cessation outcomes. For example, a stress management component within smoking cessation treatment programs may help individuals better cope with chronic financial strain. Perhaps the inclusion of problem-solving and financial management strategies may help individuals improve their financial situation.

Treatment programs might also ask financially strained smokers to review the financial cost of smoking and the impact of this cost on their lives and to consider the financial benefits of quitting for themselves and their families. There is evidence that financial incentives increase smoking cessation rates,<sup>27</sup> and this type of intervention strategy might be particularly effective among financially strained smokers. Finally, financially strained smokers attempting smoking cessation may benefit from social support provided by spouses, family, and friends, as well as by other individuals participating in smoking cessation treatment. Although additional study is necessary, it is plausible that resolving financial stressors when possible, raising awareness of the financial costs of smoking and the financial benefits of quitting, and identifying sources of social support may have a positive impact on smoking cessation treatment outcomes. ■



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### Contributors

D.E. Kendzor contributed to the conceptualization of the study and the data analyses and was the primary author. M.S. Businelle, Y. Castro, L.M. Cofta-Woerpel, J.I. Vidrine, and D.W. Wetter contributed to study conceptualization and article preparation. T.J. Costello contributed to data preparation and analysis. L.R. Reitzel contributed to article preparation. Y. Li contributed to data analysis and article preparation. C.A. Mazas contributed to study conceptualization and data collection. P.M. Cinciripini and A.J. Greisinger contributed to study conceptualization.

### Acknowledgments

This research was supported by the National Institute on Drug Abuse (grant R01-DA014818), the National Cancer Institute (grants R25T-CA57730 and K07-CA121037), and the Centers for Disease Control and Prevention (grants K01-DP001120 and K01-DP000086).

### Human Participant Protection

This study was approved by the institutional review board of the University of Texas M. D. Anderson Cancer Center. Written informed consent was obtained from all participants.

### References

- Centers for Disease Control and Prevention. Cigarette smoking among adults—United States, 2006. *MMWR Morb Mortal Wkly Rep*. 2007;56(44):1157–1161.
- Parrott S. Recession could cause large increases in poverty and push millions into deep poverty: stimulus package should include policies to ameliorate harsh effects of downturn. Available at: <http://www.cbpp.org/files/11-24-08pov.pdf>. Accessed December 28, 2009.
- Franks P, Jerant AF, Leigh P, et al. Cigarette prices, smoking, and the poor: implications of recent trends. *Am J Public Health*. 2007;97(10):1873–1877.
- Farrelly MC, Loomis BR, Mann NH. Do increases in cigarette prices lead to increases in sales of cigarettes with high tar and nicotine yields? *Nicotine Tob Res*. 2007;9(10):1015–1020.
- Falba T, Teng H, Sindelar JL, Gallo WT. The effect of involuntary job loss on smoking intensity and relapse. *Addiction*. 2005;100(9):1330–1339.
- Nelson MC, Lust K, Story M, Ehlinger E. Credit card debt, stress and key health risk behaviors among college students. *Am J Health Promot*. 2008;22(6):400–407.
- Pyle SA, Haddock CK, Poston WSC, Bray RM, Williams J. Tobacco use and perceived financial strain among junior enlisted in the U.S. military in 2002. *Prev Med*. 2007;45(6):460–463.
- Siahpush M, Borland R, Scollo M. Smoking and financial stress. *Tob Control*. 2003;12(1):60–66.
- Busch SH, Jofre-Bonet M, Falba TA, Sindelar JL. Burning a hole in the budget: tobacco spending and its crowd-out of other goods. *Appl Health Econ Health Policy*. 2004;3(4):263–272.
- Wang H, Sindelar JL, Busch SH. The impact of tobacco expenditure on household consumption patterns in rural China. *Soc Sci Med*. 2006;62(6):1414–1426.
- Kotz D, West R. Explaining the social gradient in smoking cessation: it's not in the trying, but in the succeeding. *Tob Control*. 2009;18(1):43–46.
- Siahpush M, McNeill A, Borland R, Fong GT. Socioeconomic variations in nicotine dependence, self-efficacy, and intention to quit across four countries: findings from the International Tobacco Control (ITC) Four Country Survey. *Tob Control*. 2006;15(suppl 3):iii71–iii75.
- Honjo K, Tsutsumi A, Kawachi I, Kawakami N. What accounts for the relationship between social class and smoking cessation? Results of a path analysis. *Soc Sci Med*. 2006;62(2):317–328.
- Siahpush M, Carlin JB. Financial stress, smoking cessation and relapse: results from a prospective study of an Australian national sample. *Addiction*. 2006;101(1):121–127.
- Siahpush M, Spittal M, Singh GK. Association of smoking cessation with financial stress and material well-being: results from a prospective study of a population-based national survey. *Am J Public Health*. 2007;97(12):2281–2287.
- Siahpush M, Spittal M, Singh GK. Smoking cessation and financial stress. *J Public Health*. 2007;29(4):338–342.
- Kendzor DE, Costello TJ, Li Y, et al. Race/ethnicity and multiple cancer risk factors among individuals seeking smoking cessation treatment. *Cancer Epidemiol Biomarkers Prev*. 2008;17(11):2937–2945.
- Kinnunen T, Leeman RF, Korhonen T, et al. Exercise as an adjunct to nicotine gum in treating tobacco dependence among women. *Nicotine Tob Res*. 2008;10(4):689–703.
- McCarthy DE, Piasecki TM, Lawrence DL, et al. A randomized controlled trial of bupropion SR and individual smoking cessation counseling. *Nicotine Tob Res*. 2008;10(4):717–729.
- O'Malley SS, Cooney JL, Krishnan-Sarin S, et al. A controlled trial of naltrexone augmentation of nicotine replacement therapy for smoking cessation. *Arch Intern Med*. 2006;166(6):667–674.
- Pearlin LI, Menaghan EG, Lieberman MA, Mullan JT. The stress process. *J Health Soc Behav*. 1981;22(4):337–356.
- Broms U, Silventoinen K, Lahelma E, Koskenvuo M, Kaprio J. Smoking cessation by socioeconomic status and marital status: the contribution of smoking behavior and family background. *Nicotine Tob Res*. 2004;6(3):447–455.
- Chandola T, Head J, Bartley M. Socio-demographic predictors of quitting smoking: how important are household factors? *Addiction*. 2004;99(6):770–777.
- van Loon AJM, Tjshuis M, Surtees PG, Ormel J. Determinants of smoking status: cross-sectional data on smoking initiation and cessation. *Eur J Public Health*. 2005;15(3):256–261.
- Okuyemi KS, James AS, Mayo MS, et al. Pathways to health: a cluster randomized trial of nicotine gum and motivational interviewing for smoking cessation in low-income housing. *Health Educ Behav*. 2007;34(1):43–54.
- Zimmerman FJ, Katon W. Socioeconomic status, depression disparities, and financial strain: what lies behind the income-depression relationship? *Health Econ*. 2005;14(12):1197–1215.
- Volpp KG, Troxel AB, Pauly MV, et al. A randomized, controlled trial of financial incentives for smoking cessation. *N Engl J Med*. 2009;360(7):699–709.