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For better or for worse: Spousal concordance in health behavior change

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ABSTRACT

Objective. This study examines the degree to which a married individual's health habits and use of preventive medical care are influenced by his or her spouse's behaviors.

Study design. Using longitudinal data on individuals and their spouses, we examine changes over time in the health habits of each person as a function of changes in his or her spouse's health habits. Specifically, we analyze changes in smoking, drinking, exercising, cholesterol screening, and obtaining a flu shot.

Data Source. This study uses data from the Health and Retirement Study (HRS), a nationally representative sample of individuals born between 1931 and 1941 and their spouses. Beginning in 1992, 12,652 persons (age-eligible individuals as well as their spouses) from 7,702 households were surveyed about many aspects of their life, including health behaviors, use of preventive services, and disease diagnosis.

Sample. The analytic sample includes 6,072 individuals who are married at the time of the initial HRS survey and who remain married and in the sample at the time of the 1996 and 2000 waves.

Principal Findings. We consistently find that when one spouse improves his or her behavior, the other spouse is likely to do so as well. This is found across all the behaviors analyzed, and persists despite controlling for many other factors.

Conclusions. Simultaneous changes occur in a number of health behaviors. This conclusion has prescriptive implications for developing interventions, treatments, and policies to improve health habits and for evaluating the impact of such measures.

Keywords: spouse, smoking, alcohol, exercise, preventive services.

INTRODUCTION

Smoking, drinking, and obesity have all garnered much attention for their detrimental effects on health and other outcomes. Behaviors such as exercise and a healthy diet, in contrast, can have positive effects on health. Similarly, the use of preventive services, such as cholesterol screening and flu shots, can lead to additional years of life. A critical question is how to improve the health of the public by encouraging healthy decisions. This paper focuses on the role of the spouse in shaping individual's health habits and decisions to use preventive care. In particular, it focuses on associations in the behavioral changes of spouses.

Among married couples, there is evidence of initial matching and compatibility in many areas due to endogamy and homogamy in race, religion, socioeconomic status (Kalmijn 1998; Mare 1991), physical and mental health (Mathews, and Reus 2001; Nakosteen, Westerlund, and Zimmer 2005; Wilson 2002), substance use (Vanyukov et al. 1996), occupation (Hout 1982; Smits, Ultee, and Lammers 1999), and leisure preferences (Houts, Robins, and Huston 1996). Commonalities generated by assortative mating are well documented and discussed across several disciplines (Alpern, and Reyniers 2005; Becker 1981; Kalmijn 1998; Mare 1991; Van Leeuwen, and Maas 2005). Additionally, concordance has been documented for smoking (Sutton 1980; Venters, Jacobs Jr., and Luepker 1984), drinking (Leonard, and Das Eiden 1999), and diet and exercise (Macken, Yates, and Blancher 2000). The tendency for homogamy in the use of preventive services has not been studied, although both assortative mating and environmental factors are likely to yield a positive association.

Further inquiry has evaluated the transitions that occur in health behaviors after the initial matching, and spouse behavior is considered as an important risk factor for adopting, continuing, or relapsing to poor health behaviors. For instance, studies have estimated the effect of a husband's drinking on the wife's drinking during the transition to marriage and in the newlywed phase (Leonard, and Das Eiden 1999; Leonard, and Mudar 2004). In the case of smoking, both spousal support and spousal smoking status have been studied (Coppotelli, and Orleans 1985; Homish, and Leonard 2005; Mermelstein et al. 1986; Monden, De Graaf, and Kraaykamp 2003; Roski, Schmid, and Lando 1996). However, these studies often concentrate on earlier phases of marriage, such as the newlywed and childbearing phases (Leonard, and Das Eiden 1999; McBride et al. 1998). Studies typically evaluate one spouse's behavior simply as a risk factor for the other's without taking into account the joint process of change, although there are exceptions (Franks, Pienta, and Wray 2002; Shattuck, White, and Kristal 1992).

The influence of one spouse on the other's use of preventive services has received little attention, yet it is an important addition to the set of health behaviors. Preventive behaviors, like health habits, fit well into a Grossman health demand model (Grossman 1972). Individuals make investments and choices regarding their health across a variety of factors, including preventive services, in order to optimize their utility. Within this context, it is reasonable to propose that behavioral choices could be influenced by behavioral changes of the spouse. These spousal interactions have been theorized within a Grossman style framework (Jacobson 2000). However, the magnitude of any effect remains an empirical question.

This paper adds to the literature in multiple ways. First, we analyze and document the changes in behavior of both spouses. Although studies have analyzed spousal influence, they have typically evaluated the behavioral change of one spouse and taken the other spouse's behavior as fixed. Second, we focus on the dynamics of changes in health habits over time. Third, we focus on a set of older individuals. This age category provides fertile ground for studying the dynamics of behavior, because older individuals face a number of changes in their health and the structure of their life (e.g., retirement) that could precipitate changes in behavior. Lastly, we add the use of preventive services to the set of behavioral changes and analyze multiple health habits within a single study in order to provide more general conclusions.

Using data from the Health and Retirement Study, we examine behavioral changes of spouses over time across a number of health habits: smoking, drinking, exercise, and the use of clinical services (specifically cholesterol screening and flu shots). We find that when one spouse changes a poor health behavior, the other spouse is likely to change behavior as well. This is observed across all the behaviors that we analyze, and it persists even after controlling for other factors. This finding has important implications. Understanding changes in health behavior in the context of the family, especially within marriage and with knowledge of the behavior of the spouse, can add precision to our understanding of key health behaviors, translating into more effective interventions and policies and improving evaluations.

CONCEPTUAL FRAMEWORK

Cross-sectional concordance: There are many reasons why spouses could have similar health behaviors when they marry. Assortative mating directly on health

behaviors could occur. For example, a non-smoker may prefer to marry another non-smoker to avoid second-hand smoke. Individuals with a common preference for and attitude toward good health may attract one another. They may accordingly seek to use preventive medical care and to exercise. Additionally, there is well documented assortative mating by education level. Since education is a critical factor in such health decisions as smoking and use of preventive care, this educational homogamy could cause spurious matching in health behaviors.

Couples share common environments and experiences that could result in similar life-style choices. For one, married couples typically share the same home and neighborhood. As such, living in a moderate weather environment year round might facilitate outdoor exercise for both partners. They are also likely to have friends in common, which in turn will affect their choices regarding drinking, eating, smoking, and leisure pursuits. Spouses may have the same type of employment (white collar versus blue collar) and may share a family health insurance plan. They will have the same family income and household expenses. The similarities are many.

Changes over time: A change in a factor that influences health behavior and is common to both spouses (such as location) might also result in simultaneous change. For instance, an increase in tobacco taxes may result in both spouses stopping smoking. A local intervention warning of the dangers of being overweight may encourage both spouses to increase their exercise. The changes may be imposed externally, as in the case of a change in the state tax rate or being laid off. There might be a shock that changes knowledge, attitudes, and beliefs about health behaviors. For example, the death of a friend may affect one's views of vulnerability or may result in

one's gaining information about the prevention of disease. The environment might change due to a choice that the family makes, such as retiring, selling a house, or changing neighborhoods.

Cause and effect: Assessing cause and effect can be difficult when examining spouses' behaviors. Without controlling for significant environmental changes affecting both spouses, one could inappropriately infer that a change in behavior by one spouse provoked the change in the other spouse, as opposed to some external factor influencing both. Also, because spouses have selected each other on the basis of common characteristics, it would not be surprising for them to make similar life-style decisions in response to an external change. Thus, it is difficult to determine causality.

Nevertheless, one spouse may decide independently to make a change. Although spouses share common environments and experiences, they of course also have independent experiences. For example, a spouse might independently decide to stop smoking because of new smoking restrictions at work. A wife may get sick and respond by improving her health habits.

Even when one spouse changes independently, the other may respond as well. For example, a husband's attempts to quit smoking might result in changes in cues that his spouse experiences, such as ashtrays hidden rather than visible on the table and a newly implemented rule of no smoking in the home. Success by one spouse might lead the other to quit smoking, start exercising, or make arrangements for cholesterol screening, because the positive behavior is now being emulated. Given the various mechanisms by which the behaviors of spouses may be positively correlated, we are agnostic about the precise motivations for spousal concordance. However, we

recognize the need to document behavioral change carefully after controlling for initial similarity in behavior in conducting empirical analysis e.g., removing any effects on levels of change resulting from assortative mating. Furthermore, this underscores the importance of measuring changes in such factors as work life, health, insurance status, and other life events that may spuriously generate concordant change.

ANALYTICAL STRATEGY

We concentrate on behavioral change among individuals engaging in "less healthy" behaviors. Therefore, for each of the five behaviors we consider (smoking, drinking, exercise, cholesterol screening, and flu shots), the outcome that we examine is a move from the less healthy behavior to the healthy behavior. As indicated in the probability formula given below, our approach views the outcome of interest (Y_5) as a function of the spouse's behavioral change (SBC_5) as well as other demographic variables (X_3, SX_3), health status (HS_3, SHS_3), health changes (HC_5, SHC_5), and other life events (LE_5, SLE_5) for both the individual and his or her spouse. The S preceding the variable name in the formula refers to the spouse's characteristic; thus X refers to own demographic characteristics, while SX refers to those of the spouse. The subscripts 3 and 5 refer to data from HRS waves 3 and 5. The models are estimated using unadjusted and adjusted logistic regression of the probability that an individual begins the healthy behavior (moves away from the less healthy behavior) where:

$$\Pr ob(Y_5 = 1 \mid Y_3 = 0) = f(SBC_5, X_3, SX_3, HS_3, SHS_3, HC_5, SHC_5, LE_5, SLE_5) \qquad (1)$$

We estimate a series of regressions for each of the five dependent variables separately for husbands and wives. Moving from the unadjusted to the fully adjusted model, we incrementally add sets of variables measured at baseline (X_3, SX_3, HS_3,

SHS_3) and then adjust for health changes and other life changes (HC_5, SHC_5, LE_5, SLE_5). At each stage, we evaluate the effect of introducing further control measures on the key variable of interest (SBC, spouse behavioral change). For conciseness, we report only the odds ratios for the fully adjusted models.

METHODS

Data: The data for this study come from the Health and Retirement Study (HRS) conducted at the University of Michigan. The HRS is a nationally representative sample of individuals born between 1931 and 1941 and their spouses (regardless of age). Beginning in 1992, 12,652 individuals from 7,702 households were surveyed in face-to-face interviews. Mexican Americans, African Americans, and residents of Florida were oversampled. The survey contains extensive information on each individual's health behaviors, health, and functional status, including self-reports of objective disease diagnosis both by individuals and by their spouses. More information on the HRS has been published elsewhere (Juster, and Suzman 1995). Follow-up surveys of individuals were collected every two years beginning in 1994. In later waves, questions were added on the use of clinical services. Our study uses HRS data through 2000.

Sample: Since questions regarding the use of health services were only asked at the third and fifth waves (in 1996 and 2000, respectively), our analytic sample is restricted to individuals from the initial HRS cohort who remained in the study at the time of these later waves. Potential selection bias due to the non-random attrition is considered in our discussion below. We focus on individuals who were between the ages of 45 and 70 at the beginning of the study, and in continuous partnerships through wave 5. Of the 12,652 initial respondents, 9,900 (78%) were cohabitating with a spouse or partner who

responded to the survey, in a total of 4,950 households. Restricting the HRS respondents to those within the selected age range brings the sample to 9,362 respondents in a total of 4,950 households, with 540 households contributing one age-eligible respondent, and 4,410 households contributing two age-eligible respondents.

Of the initial sample surveyed in 1992, 7,043 individuals (75.2%) remain in the survey at waves 3 and 5. Others were lost to follow-up or had passed away. Spouse responses are available in 6,072 cases (86.2%), as some non age-eligible spouses were also lost to follow-up or had passed away. The final analytical sample includes 65% of the original matched respondents. Additional observations were lost due to missing data for specific questions.

Topic-specific samples: For each behavior, we analyze the sub-sample of individuals who were engaged in the unhealthy behavior at the third wave (treated as "baseline" for this study). Thus, the sample size varies depending upon the topic (smoking, drinking, etc). Respondents who smoke make up 18% of the full sample, leaving a topic-specific sample of 1,061 individuals (579 males and 482 females). The other samples by topic are as follows: drinkers 3,323 (54.7%), those who don't exercise 2,827 (46.6%), those who don't get flu shots 3,702 (61.0%), and those who don't get cholesterol screenings 1,672 (27.6%). Breakdowns of each sample by gender are also shown in the table: females are more likely not to exercise (50% versus 43%), males are more likely to be drinkers (61% versus 48%) and smokers (19.3% versus 16.7%), and rates of getting cholesterol screenings and flu shots are nearly identical by gender.

Measures

We examine five health-related behaviors separately. Each dependent variable is measured dichotomously as an improvement in behavior (versus none) at wave 5 compared to wave 3. We estimate regressions for the following: not smoking, not drinking, participating in exercise, receiving a flu shot, and receiving a cholesterol screening.

Dependent variables: Respondent's behavioral change

Smoking status is assessed at both waves 3 and 5 with the question, "Do you smoke cigarettes now?" Since the smoking sample is restricted to smokers at wave 3, the outcome variable is whether the respondent had stopped smoking at wave 5. Table 1 reports the overall rates of smoking cessation for males and females. Twenty-nine percent of males and 22% of females had stopped smoking at wave 5.

Drinking status at waves 3 and 5 is identified by the question, "Do you ever drink any alcoholic beverages, such as beer, wine, and liquor?" The outcome is whether the individual responds "no" to this question at wave 5, given that he or she reports drinking at wave 3. Sixteen percent of males and 21% of females stop drinking by wave 5.

Exercising is assessed by asking the following question at waves 3 and 5: "On average over the past 12 months have you participated in vigorous physical activity or exercise three times a week or more? By vigorous physical activity, we mean things like sports, heavy housework, or a job that involves physical labor." The outcome of interest is participation in vigorous activity at wave 5, given a report of no activity at wave 3. Thirty percent of males and 28% of females who reported doing no exercise at wave 3 started exercising at wave 5.

Questions about health service utilization begin at wave 3 and are repeated at wave 5. They are of the form "Since we talked to you last, have you had any of the following medical tests or procedures?" This question is followed by a list of preventive behaviors, including "a flu shot" and "a blood test for cholesterol." Our outcome is whether the respondent begins getting the service at wave 5, given that he or she did not have the service at wave 3. At wave 5, 56% of males and 55% of females begin cholesterol screening; 37% of males and 38% of females begin getting flu shots.

Explanatory variables: Spouse behavior change

For each of the five health habits, we also calculate variables describing the changes in the behavior of the spouse. For each outcome, we have a series of mutually exclusive explanatory variables describing the spouse's behavioral change. Four types of change are measured (except for the case of smoking, which also includes former smoking). The spouse can *start* the healthy behavior (or stop the unhealthy one), *continue* the healthy behavior (or continue not participating in the unhealthy behavior), *stop* the healthy behavior (or start the unhealthy behavior), or *never* participate in the healthy behavior (or always participate in the unhealthy behavior). Table 1 reports the frequencies of each of these by the topic-specific sample for both males and females.

Health status and changes

We include an indicator variable of self-reported poor health at wave 3 and a similar indicator for wave 5. Self-reports of new disease diagnoses by physicians are also included in the model. Several of these have been found to increase use of clinical services (Wu 2003) and to encourage healthier behavior, such as quitting smoking (Falba 2005). Diagnoses by physicians also have the advantage of being somewhat

more objective measures of health status. Specifically, we use an indicator for whether an individual had a new diagnosis in the two years prior to wave 3 of one or more of the following: cancer, heart disease, heart attack, stroke, diabetes, or lung disease. A wave 5 indicator of new- disease diagnosis is also included, to capture incidents likely to be more salient to behavioral change between wave 3 and wave 5. Since spouse health status or changes may affect an individual's health behavior, we also include these.

Other Life Events

Other life events may occur concomitantly with behavioral changes. Consequently we also control for death of a parent, cessation of employment, and gaining of health insurance between waves 3 and 5, both for individuals and spouses.

Demographic Control Variables

Variables potentially affecting an individual's change in health behavior are included in the model. Among these are demographic information on age, years of education, and race or ethnicity. Socioeconomic status is captured with a measure of total household income at wave 3. We also include measures of whether the individual works for pay, whether his or her parents are still alive, and whether he or she has health insurance. In all cases, reciprocal measures for the spouse are included.

RESULTS

Descriptive Statistics

Table 2 lists descriptive statistics for all the included control variables for the full sample of individuals by gender. This includes demographic characteristics, baseline employment, health insurance, disease history, and health status. Rates of significant health events and other life events are also shown.

Spousal Concordance in Behavioral Change

Table 3 reports odds ratios for all five outcomes as a function of the behavioral change of the spouse. The principal finding across all outcomes is that a move by the spouse from the unhealthy to the healthy behavior is consistently associated with a positive behavioral change by the other spouse compared to continuing the unhealthy behavior. A second consistent finding is the relatively stable odds ratios comparing the unadjusted to the fully adjusted models. A third notable finding is the similarity in the odds ratios for the spouse's positive change variables between males and females. In other words, the effect that a behavioral change by one spouse has on the other spouse does not seem to vary by gender.

Smoking: The odds ratios for spouses stopping smoking are 5.76 for males and 5.21 for females and are highly significant ($p<.001$). Having a spouse who has previously quit smoking is also associated with higher rates of quitting compared to cases where the spouse continues to smoke. The odds ratios for the fully adjusted models are even greater.

Drinking: Unlike the case with smoking, the benefit of a spouse's not drinking seems to be the same whether it is recent (the spouse stops drinking by wave 5) or continuous (the spouse continuously never drinks). Again, for both the unadjusted and the adjusted models and for males and females, the odds ratio for the spouse's stopping drinking is more than 5 and is highly significant ($p<.001$). If the samples are limited to individuals who are moderate to heavy drinkers (14 or more per week for men and 7 or more per week for women) results are similar (OR 8.45 for men $p<.0001$, and OR 3.5 for women $p<.10$) but are less precise due to the smaller sample size. In further

results, the spouse stopping drinking or reducing drinking was positively related to moderate and heavy drinkers reducing their weekly quantity of drinks, but again relatively few men or women in this age range meet this criteria (9% of men and 7% of women) making extended analysis difficult.

Not Exercising: The effect of one spouse's exercising behavior on the other's exercise activity is also positive, although this effect is markedly less than the effects found for smoking and drinking (adjusted odds ratios are 1.49 for males and 1.58 for females). Furthermore, continual exercise by one spouse is equally associated with a positive behavioral change as a new upsurge in exercise by the other spouse.

Cholesterol Screening: Having a spouse who starts screening is positively associated with the individual also starting to screen (the adjusted odds ratios are 1.83 for males and 1.86 for females), compared to having a spouse who never screens. The size of this effect is nearly identical to that for having a spouse who continually screens.

Flu Shot: The effect of having a spouse begin receiving a flu shot is quite large for both males and females (the adjusted odds ratios are 5.78 and 6.06, respectively), compared to having a spouse who never gets a flu shot. A spouse's continuing to get flu shots also strongly predicts that the other spouse will get vaccinated (with adjusted odds ratios of 3.51 and 4.19).

DISCUSSION

We find that spouses influence the dynamics of each other's health habits and use of preventive services. The magnitude of their estimated impact is quite striking in each case. For instance, in the case of flu shots, the adjusted odds ratio of 5.78 for men implies that husbands whose wives begin getting flu shots have a predicted

probability of starting to get a flu shot of 60%, as opposed to a predicted probability of only 21% for men whose wives continue not to get one. The range of estimates across behaviors is also noteworthy. Not surprisingly, effects are strongest for behaviors where there might be the most cue-associated behavior (smoking and drinking), and for patient-directed (flu shot) rather than clinician-directed (cholesterol screening) preventive behavior. For instance, attempting to quit smoking or drinking while one's spouse continues these behaviors might be much more difficult due to the constant exposure to the same behavior. Meanwhile, observing one's spouse not exercising may be a rather neutral factor. Conditional on undergoing routine medical care, cholesterol screening may be entirely governed by the medical provider and any spousal association may operate through concordance in seeking standard care (thus weakening the observed association).

These findings have important implications for the effectiveness of interventions, treatments, and policies, and for evaluating these actions. More successful methods of changing behavior might be developed using full knowledge of how the spouse affects decisions and behaviors. For example, interventions to increase exercising or reduce abusive drinking might provide explicit tips about how to get the spouse involved in exercise or how to get the spouse to help reduce drinking cues in the couple's lives. Additionally, knowledge of the spillover effects that one spouse's behavior has on the other's will make evaluations more precise. For instance, treatment for a smoker may indirectly affect his or her smoking spouse. If we ignore the spillover effects in evaluations, we may underestimate the true impact of the spouse's behavior. The "treated" individual may learn new coping methods that are shared; for example, he or

she may demand a smoke-free house or complain about the smell of tobacco. These could all have the benefit of helping the non-treated smoking spouse to quit. Typically this benefit is ignored in evaluations, but should be included to capture the full impact of the initial treatment. Ignoring the spillover effects will lead to underestimating the impact and may bias estimated benefits across interventions, because the magnitude of spillovers will likely vary by policy, treatment, and intervention. Thus, cost-effectiveness as well as evaluations of effectiveness could be honed by measuring the full impact of behavior, including the spillover effects on family members, especially spouses.

Strengths and Limitations

This paper tackles an important and intriguing area that has received relatively little attention. It adds to the extant literature in several ways. We have included in our analysis changes in behavior of both spouses; dynamics of change over time; a focus on older individuals; and a broad set of health behaviors, including use of preventive services. These topics allow us to provide more robust conclusions about the impact of one spouse's behavior on the other's over time in older individuals. But despite these and other strengths, there are limitations.

The data set used in this study is large and longitudinal, and it offers a rich variety of appropriate measures for both spouses. However, self-reported data on behavior is always less desirable than objective measures are. Furthermore, changes in behavior in the time between survey waves are not measured. Since use of preventive services is measured only at waves 3 and 5, there is a gap of almost four years between measurements. As regards timing, the data do not show which spouse initiated a change in behavior or if the changes the spouses made were truly simultaneous.

Therefore, we do not have the ability to measure whether there was reflection back to the other spouse when one spouse changed behavior (Manski 1993). It is also the case that we do not include in our sample couples that have divorced or separated during the time period. Thus, our results are not entirely representative. If couples that divorce are more likely to exhibit discordant behavior, then their exclusion is likely causing us to overstate the extent of concordance.

Not all the behaviors we considered can be strictly thought of as "good" or "bad." For instance, in the case of drinking alcohol, drinking moderately might be better than not drinking at all. The results of drinking behavior are informative in the overall context of the set of behaviors, although we do also document effects for moderate and heavy drinkers in isolation. Not getting a cholesterol screening may be advisable if one recently had a favorable result. But despite these limitations, the overwhelming finding of strong concordance in spousal behavior across domains is compelling.

CONCLUSION

Health habits and use of preventive services should be viewed in the context of a family in order better to understand such behavior. Family members, especially spouses, have important impacts on each other, and we have shown that this influence extends to health behaviors. Thus, attempts to change behavior may be enhanced, or thwarted, by the behavior of family members, especially spouses. An intervention, treatment, or policy that attempts to improve the health habits of one person in the family may have positive impacts on other members of the family. Greater attention to these intra-family impacts may increase the effectiveness of endeavors to increase

healthy habits and may aid in selecting programs that will have the greatest success.

Further exploration is warranted, and new research should seek to better quantify the extent to which one spouse's behavior impacts the other's. For instance, randomized clinical trials of smoking or drinking that use pharmacological interventions could assess levels of smoking and/or drinking and changes in these levels among spouses of individuals in the trial. If the treatment proved effective, the trial would essentially randomize the change in behavior of the "treated" spouse. Such experimental evidence would give further weight to the importance of intra-family spillover effects; however, the large sample sizes needed to detect these effects might make such an endeavor difficult. New efforts to isolate causality will move the field forward by providing a more accurate and comprehensive assessment of how behavior is changed.

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Table 1: Samples by Initial Behavior and Frequencies of Transitions
(from overall sample of 6072)

Panel A: Smoking Sample						
(All individuals smoking at wave3)	Males			Females		
	n=579 (19.3%) [b]			n=482 (16.7%)		
		Individual Stops			Individual Stops	
n=1061 (18.0%) [a]	All	Smoking by Wave 5		All	Smoking by Wave 5	
		yes	no		yes	no
	100.0%	29.0%	71.0%	100.0%	21.8%	78.2%
Frequencies of Spouse Behavior [c]						
Spouse Stops Smoking by Wave 5	9.8%	19.0%	6.8%	11.2%	26.7%	6.9%
Spouse Constant Former Smoker	22.8%	32.1%	19.0%	40.0%	30.5%	42.7%
Spouse Never Smokes	35.1%	28.6%	37.7%	12.4%	14.3%	11.9%
Spouse Continues Smoking (Or Starts)	32.3%	20.3%	36.5%	36.3%	28.6%	38.5%

Panel B: Drinking Sample						
(All individuals drinking at wave3)	Males			Females		
	n=1889 (60.7%)			n=1434 (48.4%)		
		Individual Stops			Individual Stops	
n=3323 (54.7%)	All	Drinking by Wave 5		All	Drinking by Wave 5	
		yes	no		yes	no
	100.0%	16.3%	83.7%	100.0%	20.7%	79.3%
Frequencies of Spouse Behavior						
Spouse Stops Drinking by Wave 5	12.1%	23.4%	9.9%	9.9%	23.2%	6.4%
Spouse Continually Never Drinks	26.4%	49.0%	21.9%	12.8%	21.5%	10.5%
Spouse Starts Drinking	6.6%	2.3%	7.4%	3.7%	3.7%	3.7%
Spouse Continues Drinking	55.0%	25.3%	60.7%	73.6%	51.5%	79.4%

Panel C: Not Exercising Sample						
(All individuals not exercising at wave3)	Males			Females		
	n=1346 (43.3%)			n=1481 (50.1%)		
		Individual Starts			Individual Starts	
n=2827 (46.6%)	All	Exercising by Wave 5		All	Exercising by Wave 5	
		yes	no		yes	no
	100.0%	30.1%	69.9%	100.0%	28.2%	71.8%
Frequencies of Spouse Behavior						
Spouse Starts Exercising by Wave 5	15.9%	18.5%	14.8%	14.4%	16.5%	13.6%
Spouse Continually Exercises	24.0%	30.4%	21.3%	32.5%	42.6%	28.5%
Spouse Stops Exercising	17.2%	13.6%	18.8%	16.7%	10.5%	19.2%
Spouse Never Exercises	42.9%	37.5%	45.2%	36.3%	30.4%	38.7%

[a] Denotes overall frequency of sub-sample (e.g. proportion engaging in unhealthy behavior). [b] Denotes proportion of males in the sample engaging in unhealthy behavior. [c] Represents distribution of spouses across change categories.

Table 1 (cont.): Samples by Initial Behavior and Frequencies of Transitions

Panel D: Not Screening Sample (Cholesterol)						
(All individuals not screening at wave3)	Males			Females		
	n=874 (28.1%) [b]			n=798 (27.0%)		
		Individual Starts			Individual Starts	
n=1672 (27.6%) [a]	All	Screening by Wave 5		All	Screening by Wave 5	
		yes	no		yes	no
	100.0%	55.9%	44.1%	100.0%	54.8%	45.2%
Frequencies of Spouse Behavior [c]						
Spouse Starts Screening by Wave 5	21.4%	23.7%	18.4%	22.3%	23.3%	21.1%
Spouse Continually Screens	45.1%	49.5%	39.5%	48.9%	52.2%	44.9%
Spouse Stops Screening	11.2%	9.0%	14.0%	8.5%	8.7%	8.3%
Spouse Never Screens	22.3%	17.8%	28.1%	20.3%	15.8%	25.8%

Panel E: Not Getting Flu Shot Sample						
(All individuals not getting flu shot at wave3)	Males			Females		
	n=1885 (60.6%)			n=1817 (61.4%)		
		Individual Starts Flu			Individual Starts Flu	
n=3702 (61.0%)	All	Shot by Wave 5		All	Shot by Wave 5	
		yes	no		yes	no
	100.0%	36.8%	63.2%	100.0%	38.4%	61.6%
Frequencies of Spouse Behavior						
Spouse Starts Getting Flu Shot by W5	27.4%	44.7%	17.3%	27.0%	42.3%	17.4%
Spouse Continually Gets Flu Shot	16.8%	21.8%	13.9%	19.7%	27.7%	14.8%
Spouse Stops Getting Flu Shot	3.0%	3.0%	3.0%	3.6%	1.9%	4.7%
Spouse Never Screens	52.8%	30.6%	65.8%	49.7%	28.2%	63.1%

[a] Denotes overall frequency of sub-sample (e.g. proportion engaging in unhealthy behavior). [b] Denotes proportion of males in the sample engaging in unhealthy behavior. [c] Represents distribution of spouses across change categories.

Table 2: Demographic, Health, and Life Event Variables Used as Controls

All samples combined	**Males (n=3112)**		**Females (n=2960)**	
	Individual	*Spouse*	*Individual*	*Spouse*
Age in years	60.7	56.8	57.8	61.1
(s.e.)	(4.7)	(5.7)	(4.5)	(5.4)
Education in years	12.4	12.3	12.3	12.3
(s.e.)	(3.4)	(2.9)	(2.9)	(3.4)
Black	10.8%	10.4%	10.4%	10.8%
Hispanic Origin	7.9%	8.2%	8.1%	7.8%
Working for Pay	64.6%	53.5%	51.5%	62.9%
Mother Alive	30.8%	39.3%	36.8%	30.1%
Father Alive	10.3%	16.8%	14.5%	9.8%
Any health insurance	92.6%	89.4%	89.5%	92.8%
Annual Household Income	$66,141	same	$64,885	same
(s.e.)	(81,240)		(81,874)	
Health Status at Baseline (Wave 3)				
Self-reported poor health	18.5%	16.8%	17.5%	18.8%
High Blood Pressure	38.7%	32.9%	34.0%	39.2%
Diabetes Ever	12.1%	8.5%	9.0%	12.2%
Cancer Ever	5.1%	7.5%	7.6%	5.2%
Heart Problems Ever	17.4%	9.3%	9.8%	17.7%
Stroke Ever	4.1%	2.4%	2.5%	4.3%
Lung Disease Ever	5.8%	5.3%	5.7%	6.1%
Health Changes Between Waves 3 and 5				
Health Worsened (self-report)	23.2%	20.8%	21.0%	23.7%
New High Blood Pressure	10.2%	9.9%	10.1%	10.4%
New Health Condition (Other)	20.0%	13.8%	14.1%	20.4%
Other Events Between Waves 3 and 5				
Stopped Working	18.5%	15.3%	15.4%	18.5%
Parent Died	13.2%	14.1%	14.1%	12.7%
Gained Health Insurance	5.0%	6.1%	6.2%	5.0%

Table 3: Estimates of Spouse Effects

Panel A: Smoking Sample	***Dependent variable: probability individual stops smoking***							
(All individuals smoking at wave3)	Males				Females			
	Unadjusted		*Adjusted*		*Unadjusted*		*Adjusted*	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
Explanatory variables: Spouse Behavior								
Spouse Stops Smoking by Wave 5	5.76***	3.03-10.94	7.53***	3.46-16.36	5.21***	2.68-10.10	8.52***	3.39-21.4
Spouse Constant Former Smoker	3.12***	1.87-5.18	3.77***	2.02-7.04	0.96	.56-1.66	1.10	.56-2.16
Spouse Never Smokes	1.39	.85-2.28	1.87*	1.06-3.32	1.61	.80-3.26	1.79	.73-4.38
Spouse Continues Smoking (Or Starts)	*ref*		*ref*		*ref*		*ref*	

Panel B: Drinking Sample	***Dependent variable: probability individual stops drinking***							
(All individuals drinking at wave3)	Males				Females			
	Unadjusted		*Adjusted*		*Unadjusted*		*Adjusted*	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
Spouse Behavior								
Spouse Stops Drinking by Wave 5	5.64***	3.93-8.11	5.43***	3.61-8.17	5.58***	3.85-8.08	5.10***	3.35-7.77
Spouse Continually Never Drinks	5.36***	3.97-7.23	5.11***	3.59-7.27	3.17***	2.24-4.50	3.08***	2.05-4.62
Spouse Starts Drinking	0.74	.33-1.63	0.80	.35-1.82	1.55	.78-3.07	1.16	.52-2.59
Spouse Continues Drinking	*ref*		*ref*		*ref*		*ref*	

Panel C: Not Exercising Sample	***Dependent variable: probability individual starts exercising***							
(All individuals not exercising at wave3)	Males				Females			
	Unadjusted		*Adjusted*		*Unadjusted*		*Adjusted*	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
Spouse Behavior								
Spouse Starts Exercising by Wave 5	1.51*	1.08-2.11	1.49*	1.01-2.17	1.54*	1.09-2.18	1.58*	1.07-2.35
Spouse Continually Exercises	1.72***	1.29-2.30	1.60**	1.14-2.25	1.90***	1.45-2.49	1.93***	1.41-2.64
Spouse Stops Exercising	0.87	.61-1.24	0.85	.57-1.28	0.70	.48-1.02	0.71	.46-1.08
Spouse Never Exercises	*ref*		*ref*		*ref*		*ref*	

Notes: OR: Odds ratio; CI: confidence interval; Adjusted models include controls for all variables lited in Table 2; +p<.10, *p<.05, **p<.01, ***p<.001

Table 3 (cont.): Estimates of Spouse Effects

Panel D: Not Screening Sample (Cholesterol)	***Dependent variable: probability individual starts screening***							
(All individuals not screening at wave3)	Males				Females			
	Unadjusted		*Adjusted*		*Unadjusted*		*Adjusted*	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
Explanatory variables: Spouse Behavior								
Spouse Starts Screening by Wave 5	2.03**	1.35-3.05	1.83*	1.12-3.00	1.81**	1.18-2.78	1.86*	1.11-3.13
Spouse Continually Screens	1.98***	1.40-2.80	1.94**	1.25-3.02	1.90**	1.31-2.75	2.39***	1.48-3.87
Spouse Stops Screening	1.01	.62-1.65	0.93	.52-1.68	1.71+	.96-3.02	1.39	.71-2.76
Spouse Never Screens	*ref*		*ref*		*ref*		*ref*	

Panel E: Not Getting Flu Shot Sample	***Dependent variable: probability individual starts getting flu shot***							
(All individuals not getting flu shot at wave3)	Males				Females			
	Unadjusted		*Adjusted*		*Unadjusted*		*Adjusted*	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
Spouse Behavior								
Spouse Starts Getting Flu Shot by W5	5.56***	4.40-7.01	5.78***	4.43-7.54	5.42***	4.26-6.89	6.05***	4.60-7.97
Spouse Continually Gets Flu Shot	3.36***	2.57-4.39	3.51***	2.56-4.80	4.19***	3.23-5.44	4.19***	3.08-5.71
Spouse Stops Getting Flu Shot	2.15**	1.23-3.77	1.84+	.97-3.52	0.88	.47-1.65	0.88	.45-1.70
Spouse Never Gets Flu Shot	*ref*		*ref*		*ref*		*ref*	

Notes: OR: Odds ratio; CI: confidence interval; Adjusted models include controls for all variables lited in Table 2; +p<.10, *p<.05, **p<.01, ***p<.001

Appendix: Odds Ratios for Fully Adjusted Models (Males)

Individual measures	Smoking	Drinking	Not Exercising	Not Screening	No Flu Shot
Age in years	1.050	1.038*	0.999	1.017	1.041**
	(0.12)	(0.065)	(0.95)	(0.45)	(0.019)
Education in years	0.957	1.001	0.984	1.065*	1.041*
	(0.33)	(0.97)	(0.54)	(0.055)	(0.093)
Black	7.214	1.606	1.137	1.943	0.462
	(0.14)	(0.59)	(0.88)	(0.53)	(0.27)
Hispanic Origin	0.665	1.078	1.107	1.606	1.427
	(0.68)	(0.87)	(0.82)	(0.42)	(0.34)
Household Income	1.000	1.000	1.000	1.000*	1.000
	(0.95)	(0.11)	(0.65)	(0.085)	(0.25)
Baseline Health Measures					
Self-reported poor health	0.817	0.957	0.611**	0.922	1.196
	(0.53)	(0.84)	(0.011)	(0.77)	(0.31)
High Blood Pressure	1.505	1.137	0.838	1.750***	1.217
	(0.12)	(0.42)	(0.24)	(0.009)	(0.13)
Diabetes Ever	0.952	1.459	0.483***	1.402	1.642***
	(0.90)	(0.10)	(0.0033)	(0.34)	(0.007)
Cancer Ever	0.702	0.657	0.878	0.831	1.223
	(0.55)	(0.27)	(0.66)	(0.68)	(0.47)
Heart Problems Ever	0.740	1.003	0.740	0.734	1.405**
	(0.37)	(0.99)	(0.12)	(0.36)	(0.047)
Stroke Ever	1.050	0.508	0.697	2.075	1.192
	(0.94)	(0.19)	(0.29)	(0.21)	(0.60)
Lung Disease Ever	1.279	1.441	0.567*	0.601	1.962**
	(0.49)	(0.21)	(0.062)	(0.28)	(0.019)
Other Baseline Characteristics					
Working for Pay	0.905	1.213	1.061	0.795	0.745*
	(0.75)	(0.31)	(0.74)	(0.31)	(0.052)
Mother Alive	0.903	1.051	0.895	0.850	0.989
	(0.71)	(0.79)	(0.52)	(0.40)	(0.94)
Father Alive	1.094	0.800	0.771	0.649	0.691*
	(0.82)	(0.42)	(0.30)	(0.12)	(0.088)
Any Health Insurance	0.423	3.115*	0.493	0.904	3.790***
	(0.16)	(0.072)	(0.19)	(0.83)	(0.009)
Health Changes between Waves 3 & 5					
Health Worsened (self-report)	0.900	1.603***	0.675**	1.399	1.179
	(0.70)	(0.0063)	(0.022)	(0.13)	(0.25)
New High Blood Pressure	1.907*	0.917	1.003	3.356***	1.778***
	(0.076)	(0.74)	(0.99)	(0.000)	(0.003)
New Health Condition (other)	2.250***	1.765***	0.774	3.509***	1.393**
	(0.003)	(0.001)	(0.15)	(0.000)	(0.026)
Other Life Events					
Stopped Working	0.974	0.757	1.290	1.173	1.132
	(0.93)	(0.18)	(0.19)	(0.48)	(0.44)
Parent Died	1.073	1.131	1.323	0.981	0.944
	(0.86)	(0.64)	(0.24)	(0.94)	(0.78)
Gained Health Insurance	0.262*	2.320	0.765	0.885	2.044
	(0.064)	(0.21)	(0.64)	(0.81)	(0.19)

***p<.01, **p<.05, *p<.1

Appendix: Odds Ratios for Fully Adjusted Models, cont. (Males)

Spouse measures	Smoking	Drinking	Not Exercising	Not Screening	No Flu Shot
Age in years	0.973	0.996	1.009	0.990	1.008
	(0.28)	(0.84)	(0.55)	(0.56)	(0.54)
Education in years	1.121**	1.006	0.962	1.001	1.050*
	(0.041)	(0.86)	(0.23)	(0.98)	(0.096)
Black	0.0617**	0.864	1.027	0.981	2.317
	(0.042)	(0.87)	(0.97)	(0.99)	(0.23)
Hispanic Origin	1.655	1.378	1.263	1.202	1.015
	(0.58)	(0.50)	(0.57)	(0.73)	(0.97)
Baseline Health Measures					
Self-reported poor health	0.864	1.093	0.756	1.117	1.029
	(0.65)	(0.69)	(0.18)	(0.65)	(0.88)
High Blood Pressure	0.733	1.138	0.832	0.733	1.071
	(0.26)	(0.45)	(0.24)	(0.12)	(0.62)
Diabetes Ever	2.057*	0.913	0.787	0.615	0.912
	(0.082)	(0.74)	(0.37)	(0.12)	(0.69)
Cancer Ever	1.414	1.104	1.106	0.839	0.735
	(0.38)	(0.69)	(0.69)	(0.58)	(0.18)
Heart Problems Ever	0.795	1.030	0.964	1.129	0.672*
	(0.60)	(0.91)	(0.89)	(0.69)	(0.078)
Stroke Ever	1.583	0.608	0.789	0.805	0.841
	(0.41)	(0.33)	(0.60)	(0.67)	(0.65)
Lung Disease Ever	1.130	1.287	1.683	0.700	0.834
	(0.81)	(0.45)	(0.14)	(0.39)	(0.51)
Other Baseline Characteristics					
Working for Pay	1.340	1.170	0.800	0.920	0.951
	(0.27)	(0.38)	(0.18)	(0.68)	(0.72)
Mother Alive	0.796	0.854	0.900	1.088	0.892
	(0.37)	(0.35)	(0.50)	(0.65)	(0.38)
Father Alive	0.836	0.769	0.920	1.033	1.042
	(0.57)	(0.24)	(0.69)	(0.89)	(0.81)
Any Health Insurance	0.946	0.781	1.454	2.279**	0.885
	(0.92)	(0.60)	(0.33)	(0.041)	(0.74)
Health Changes between Waves 3 & 5					
Health Worsened (self-report)	0.766	0.957	0.981	0.842	0.950
	(0.37)	(0.82)	(0.92)	(0.44)	(0.74)
New High Blood Pressure	0.378**	1.271	0.906	0.858	1.072
	(0.023)	(0.31)	(0.69)	(0.60)	(0.73)
New Health Condition (other)	1.003	1.070	0.906	0.789	1.054
	(0.99)	(0.75)	(0.63)	(0.33)	(0.77)
Other Life Events					
Stopped Working	1.075	0.738	1.389	0.745	0.904
	(0.83)	(0.20)	(0.10)	(0.26)	(0.58)
Parent Died	1.024	1.113	1.168	0.896	0.931
	(0.95)	(0.66)	(0.48)	(0.67)	(0.70)
Gained Health Insurance	0.897	0.849	1.335	1.567	0.825
	(0.87)	(0.75)	(0.51)	(0.32)	(0.63)
Constant	0.0413	0.00271***	1.199	0.116	0.00141***
	(0.14)	(0.000)	(0.89)	(0.16)	(0.000)

Appendix: Odds Ratios for Fully Adjusted Models (Females)

Individual measures	Smoking	Drinking	Not Exercising	Not Screening	No Flu Shot
Age in years	1.002	1.014	1.001	1.003	1.025
	(0.96)	(0.53)	(0.98)	(0.90)	(0.14)
Education in years	1.088	0.895***	1.030	1.030	1.008
	(0.29)	(0.008)	(0.36)	(0.50)	(0.79)
Black	1.922	1.911	0.156	1.340	0.701
	(0.17)	(0.53)	(0.11)	(0.72)	(0.56)
Hispanic Origin	1.185	1.359	0.415*	1.397	1.026
	(0.85)	(0.50)	(0.089)	(0.58)	(0.95)
Household Income	1.000	1.000	1.000	1.000	1.000
	(0.64)	(0.71)	(0.19)	(0.86)	(0.45)
Baseline Health Measures					
Self-reported poor health	1.605	1.101	0.713*	0.710	1.103
	(0.22)	(0.71)	(0.068)	(0.21)	(0.59)
High Blood Pressure	1.776*	0.920	0.807	2.064***	1.153
	(0.092)	(0.64)	(0.14)	(0.001)	(0.29)
Diabetes Ever	0.937	1.681	0.605**	5.768***	1.526*
	(0.91)	(0.14)	(0.048)	(0.001)	(0.070)
Cancer Ever	0.128**	1.008	1.113	0.878	1.320
	(0.013)	(0.98)	(0.66)	(0.76)	(0.23)
Heart Problems Ever	2.425*	1.417	0.889	0.910	1.484*
	(0.079)	(0.22)	(0.61)	(0.82)	(0.071)
Stroke Ever	1.357	0.641	0.777	3.051	1.368
	(0.74)	(0.55)	(0.55)	(0.12)	(0.45)
Lung Disease Ever	0.456	0.892	0.459**	2.221*	1.387
	(0.17)	(0.76)	(0.019)	(0.091)	(0.31)
Other Baseline Characteristics					
Working for Pay	0.620	0.852	1.052	1.282	0.939
	(0.18)	(0.39)	(0.75)	(0.21)	(0.65)
Mother Alive	1.576	0.891	0.750*	0.868	0.877
	(0.18)	(0.51)	(0.060)	(0.46)	(0.33)
Father Alive	1.889	1.419	0.869	1.523	1.634***
	(0.15)	(0.12)	(0.48)	(0.10)	(0.005)
Any Health Insurance	1.492	2.821	0.853	2.856***	3.915***
	(0.55)	(0.11)	(0.68)	(0.007)	(0.000)
Health Changes between Waves 3 & 5					
Health Worsened (self-report)	1.649	1.744***	1.100	1.108	1.378**
	(0.16)	(0.005)	(0.55)	(0.66)	(0.036)
New High Blood Pressure	2.115*	0.691	0.737	4.473***	1.366
	(0.079)	(0.20)	(0.18)	(0.000)	(0.10)
New Health Condition (other)	3.109***	1.550**	0.947	1.606*	1.505**
	(0.002)	(0.046)	(0.77)	(0.080)	(0.018)
Other Life Events					
Stopped Working	1.248	1.297	1.221	1.273	1.042
	(0.62)	(0.25)	(0.32)	(0.37)	(0.82)
Parent Died	0.572	1.090	1.216	0.752	0.903
	(0.24)	(0.72)	(0.34)	(0.28)	(0.58)
Gained Health Insurance	0.515	2.481	0.641	2.099*	2.990***
	(0.47)	(0.20)	(0.31)	(0.094)	(0.008)

***p<.01, **p<.05, *p<.1

Appendix: Odds Ratios for Fully Adjusted Models, cont. (Females)

Spouse measures	Smoking	Drinking	Not Exercising	Not Screening	No Flu Shot
Age in years	0.988	0.977	1.006	0.988	0.996
	(0.76)	(0.23)	(0.70)	(0.54)	(0.80)
Education in years	1.027	0.968	1.055**	0.945*	1.014
	(0.68)	(0.34)	(0.045)	(0.092)	(0.55)
Black	-	0.894	10.18**	0.720	1.266
		(0.91)	(0.042)	(0.68)	(0.70)
Hispanic Origin	5.084*	1.083	3.144**	1.504	1.242
	(0.053)	(0.87)	(0.020)	(0.50)	(0.57)
Baseline Health Measures					
Self-reported poor health	0.605	0.913	1.376*	1.113	0.702**
	(0.22)	(0.71)	(0.096)	(0.67)	(0.044)
High Blood Pressure	1.056	0.897	1.132	0.670**	1.027
	(0.87)	(0.52)	(0.38)	(0.043)	(0.83)
Diabetes Ever	1.213	1.284	0.844	0.520**	0.882
	(0.66)	(0.29)	(0.40)	(0.017)	(0.48)
Cancer Ever	0.623	0.400**	0.997	0.720	1.135
	(0.59)	(0.031)	(0.99)	(0.39)	(0.63)
Heart Problems Ever	0.993	1.133	1.098	1.089	0.844
	(0.99)	(0.56)	(0.59)	(0.73)	(0.30)
Stroke Ever	0.912	0.868	0.890	0.244***	1.324
	(0.88)	(0.75)	(0.74)	(0.002)	(0.36)
Lung Disease Ever	0.866	1.218	1.101	0.756	0.643
	(0.82)	(0.56)	(0.73)	(0.43)	(0.13)
Other Baseline Characteristics					
Working for Pay	0.357***	1.090	0.737*	0.621**	1.106
	(0.009)	(0.66)	(0.074)	(0.039)	(0.51)
Mother Alive	1.404	1.229	0.991	1.510*	1.219
	(0.35)	(0.28)	(0.96)	(0.060)	(0.18)
Father Alive	1.020	0.760	1.019	1.183	0.726
	(0.97)	(0.33)	(0.94)	(0.56)	(0.13)
Any Health Insurance	2.028	0.410	1.668	1.660	0.319**
	(0.53)	(0.20)	(0.38)	(0.36)	(0.010)
Health Changes between Waves 3 & 5					
Health Worsened (self-report)	1.059	1.103	0.772	1.284	1.144
	(0.87)	(0.61)	(0.12)	(0.23)	(0.35)
New High Blood Pressure	1.462	0.779	1.067	0.930	0.786
	(0.38)	(0.35)	(0.77)	(0.81)	(0.23)
New Health Condition (other)	1.008	0.875	1.004	1.045	0.803
	(0.98)	(0.51)	(0.98)	(0.84)	(0.14)
Other Life Events					
Stopped Working	2.043*	0.926	1.492**	1.010	0.988
	(0.078)	(0.73)	(0.030)	(0.97)	(0.94)
Parent Died	0.434	0.883	1.122	0.639	0.810
	(0.11)	(0.65)	(0.61)	(0.13)	(0.30)
Gained Health Insurance	1.759	0.580	1.649	2.394	0.594
	(0.67)	(0.48)	(0.42)	(0.15)	(0.27)
Constant	0.0236	1.438	0.0764*	0.334	0.0416***
	(0.19)	(0.81)	(0.053)	(0.49)	(0.006)