Health care insurance and advance directive completion: A population based study

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Abstract

Background: The relationship between advance directive (AD) completion and health insurance status is rarely studied.

Method: AD completion information was collected through the 2008 Nevada Behavior Risk Factor Surveillance System (BRFSS), a statewide cross-sectional telephone survey. Nevada non-institutionalized population over 18 were randomly selected as a population sample. Respondents were divided to "health care plan group" (HCPG) and "no health care plan group" (NHCPG). Demographic and behavior risk factors were also collected. Weighted multiple logistic regressions were utilized to assess the relationships between ADs, healthcare coverage and other factors.

Results: Of 4,461 respondents completing the survey, HCPG were six times more likely to have completed an AD than the NHCPG (unadjusted odds ratio: 6.08, 95% CI: 4.34-8.51). After controlling for demographic factors, the HCPG were still more than twice as likely to have completed an AD as NHCPG (AOR = 2.67, 95% CI:1.80-3.97). Only slight differences emerged for AD completion between HPCG and NHCPG when health status (AOR = 2.74, 95% CI, 1.81-4.14) and health behaviors (AOR = 2.63, 95% CI: 1.73-3.98) were added to the model.

Conclusion: Health insurance, after age and college education, is the third strongest predictor of AD completion.

Introduction

National estimates on completion rates of Advance Directives (ADs) by adult Americans either using a health care proxy (durable power of attorney for health care) or living will document have ranged from 15% to 25% in 1995 (US-GAO, 1995) to an average of 29% in 2006 (TPRC, 2006). In 2003, Minnesota had a 27% AD completion rate among its adult residents (Silberman, 2004). Also in the same year, 47% of North Carolina American Association of Retired Persons (AARP) members (50+ years) had a health care proxy, and 51% had a living will (Straw and Cummins, 2003). AARP's national poll of its members approximates 51% of older adults (60+ years) have completed a health care proxy and 47% have written a living will (AARP, 2008). The main factors which influence the completion of ADs are age (Straw and Cummins, 2003), educational interventions (Luptak and Boult, 1994), ethnicity (Waters, 2001), socio-economic status (Mezey, et al., 2000), understanding of the documents (Campbell, et al., 2007), established primary care physician (Morrison and Meier, 2004), family and spiritual support (Duke, et al., 2007) among others.

As of late, having health insurance also appears to be a significant factor in advance care planning (Mezey, et al., 2000). Health Maintenance Organizations (HMOs) such as Kaiser Permanente have demonstrated that clinician engagement (Beck and others, 2002; Gordon and Shade, 1999), physician interventions, patient education and reminders (Wissow and others, 2004) have increased AD completion among their members. In 2005, out of 1,448 AARP members surveyed in Massachusetts, 93% had health insurance, 59% had a health care proxy and 48% had a living will (Dinger, 2005). In a national study conducted by Teno and others (2007), out of 1,587 who died in a nursing home, hospice or at home, 70.8% had an AD. The mean age of the sample was 79 years and 93.2% had some insurance coverage either through Medicare, Medicaid, Medicare and private, or private. In 2008, AD completion rates among employees of Univera Healthcare rose significantly as a result of their advance care planning employee campaigns. Their survey showed an increase of 43% for completed health care proxies, and 26% for completed living wills compared to 30% and 18% respectively in 2002 (Bomba and Puretz, 2008).

Ideally, prior to the completion of the AD documents, individuals should have a conversation with their health care provider, families and friends about their values, beliefs, and, if appropriate, what is on their "bucket list." Advance care planning is a process which focuses on respecting individual autonomy and choices, and should take place ahead of time (i.e. before a health crisis). These discussions may also include exploration of different health care scenarios and treatment options, clarification of the documents, designation of a health care proxy, preference for palliative care, organ donation, and others. In one study, stress was observed to be highest among bereaved family members when the decedent patients did not complete their advance directives (Tilden et.al, 2001). The significance of ADs has been underscored especially during the high profile end of life cases of Quinlan, Cruzan, and Schiavo. In fact, after the Cruzan case in 1990, the U.S. Congress passed the Patient Self Determination Act which requires facilities receiving Medicare and Medicaid funding to inform patients about advance directives. Some experts, however, warn that the concept of advance directives may be "fundamentally flawed" (Perkins, 2007) because they cannot presuppose more control over their future care. They argue that prior instructions may become irrelevant because of the unpredictability of medical care. Though well-intentioned, living wills are quite limited because of the lack of specificity --- there are so many contingencies in a health care crisis which cannot be captured in a directive such as withholding or withdrawing treatment (O'Reilly, 2009). There are also the cultural objections (e.g. when talking about death and dying is taboo) and perceptions that advance directives are ways to ration or limit care. Nevertheless, critics and proponents agree that in spite of AD shortcomings, conversations between physician and patients concerning advance care planning are valuable. Furthermore, providers are encouraged to build relationships, recognize emotions and values and build consensus regarding end of life decisions (O'Reilly, 2009).

To help clarify the relationship between health insurance coverage and advance directive completion rates, the Nevada Center for Ethics & Health Policy (NCEHP) at the University of Nevada, Reno included a statewide survey regarding ADs within the Behavioral Risk Factors Surveillance System (BRFSS). The following research questions were to be addressed:

1. What percent of Nevadans have completed ADs?
2. Are AD completion and health insurance status related?
3. When demographic, health, and health behavior variables are controlled for, does the relationship still exist?

METHODS

Survey Design

This study was designed as part of the 2008 Nevada Behavioral Risk Factor Surveillance System (BRFSS), a project coordinated by US Centers for Disease Control and Prevention (CDC). The BRFSS is a series of state-based cross-sectional telephone surveys of non-institutionalized US adults over 18 years of age. The survey is conducted by state health departments and coordinated by the US Centers for Disease Control and Prevention (2004). The survey uses a multistage cluster design based on random digit dialing to select a representative sample of respondents. We added state-specific questions on advance directive questions to Nevada BRFSS project in 2008. The response rate for Nevada BRFSS 2008 was 53.37% (CDC 2008). The Protocol of this study was approved by University of Nevada, Reno Social Behavioral Institutional Review Board, Protocol# SA05/06-163.

Study Design

The main outcome variables of interest in this report were the advance directives and health care access among Nevadans. The questions asked in the survey were: 1) Advance healthcare directives are legal documents that specify your healthcare wishes if you are unable to speak for yourself (such as a

living will or durable power of attorney for health care). Have you completed one? 2) Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare?

The potential influential variables we included in this study were marital status, race/ethnicity, age, gender, education, employment status, family income, general health status, life satisfaction, body weight, smoking status, alcohol drinking, diabetes status, asthma status, disability status, physical activity and the presence of children. Our study population included 4,461 adults who responded to the 2008 BRFSS, which was then weighted to represent of all 2.7 million total population living in Nevada. Details of the weighting process for complex survey design are reported elsewhere (CDC, 2004).

Data Analysis

The respondents' demographic characteristics were analyzed and described through weighted survey frequency analyses. Weighted multiple logistic regressions were utilized to assess the relationships between advance directives, healthcare coverage and other variables. The SAS procedures of SURVEYFREQ and SURVEYLOGISTIC were applied to account for the complex survey design and weighted sampling probabilities of the data (SAS, 2007). All statistical tests were 2-tailed.

RESULTS

Respondent characteristics are presented in Tables 1. 4,461 respondents completed all the questions regarding Advanced Directives and Health Care Coverage. Table 1 presents the weighted percentage of the respondent characteristic distributions calculated and weighted based on the complex survey design and weighted sampling probabilities.

Table 1. Respondent Characteristics

Characteristics	Number of Respondents	Percentages	Weighted Percentages*	Confidence Interval (95%)*
Total	4461	100.0		
Sex				
Male	1777	39.8	49.9	47.5-52.3
Female	2684	60.2	50.1	47.7-52.5
Age				
18 to 24	177	4.0	11.6	9.7-13.5
25 to 34	486	10.9	18.8	16.6-21.0
35 to 44	675	15.1	19.8	17.8-21.7
45 to 54	910	20.4	18.2	16.5-20.0
55 to 64	947	21.2	15.7	14.3-17.2
65+	1266	28.4	15.9	14.6-17.2
Race				
White-Non-Hispanic	3367	75.5	62.8	60.3-65.3
Black-Non-Hispanic	95	2.1	3.3	2.5-4.2
Hispanic	534	12.0	22.8	20.3-25.2
Multiracial	213	4.8	5.3	4.2-6.4
Other	220	4.9	5.8	4.7-6.9
Marital Status				
Married	2420	54.2	59.2	56.8-61.5
Divorced/Separated	902	20.2	13.7	12.3-15.0
Widowed	516	11.6	5.7	4.9-6.5
Other	616	13.8	21.5	19.2-23.7
Income				
Less than 15,000	329	7.4	6.2	4.7-7.8
15,000 - 24.999	588	13.2	12.8	11.1-14.5
25,000 - 34.999	436	9.8	10.4	8.9-12.0
35,000 - 49,999	611	13.7	13.7	12.1-15.3
More than 50,000	1965	44.0	44.9	42.6-47.3
Education				
Less Than H.S.	370	8.3	12.7	10.7-14.7
H.S. or G.E.D.	1234	27.7	28.1	25.9-30.3
Some Post-H.S.	1462	32.8	30.0	27.8-32.2
College Graduate	1387	31.1	29.0	27.0-31.1
Health Care Insurance				
Yes	3803	85.5	79.1	76.9-81.4
No	644	14.5	20.9	18.6-23.1

Note: * Weighted percentage and confidence intervals are weighted to account for the

complex survey design and weighted sampling probabilities

AD Completion Rates among Nevadans

Thirty-one percent (31.28, 95% CI: 29.2-33.2) of the sample had completed an advance directive. Nevadans over the age of 55 and those with a college education had greater percentages of completing an advance directive. Weighted percentages by demographic and health care plan status are presented in Table 2 (at end of paper). The strongest predictor for having completed an Advance directive was being over the age of 55. The second strongest predictor was having a completed college degree. The third strongest predictor was having a health care plan.

AD Completion Rates and Health Care Plan

Ninety-four percent of adults with completed advance directives and 72% adults without a completed advance directives also had a health care plan. Four weighted logistic regression models were tested to determine the influence of health care plan on advance directive completion rates. Model summaries are presented in Table 3. The unadjusted odds ratio for advance directive and health care plan status alone was 6.08 (95% CI, 4.34-8.51). When demographic variables (sex, age, race, income, educational level, employment status, and marital status) were added to the model Nevadans with a health care plan were still more than twice as likely to have completed an advance directive as those without a health care plan (AOR = 2.67, 95% CI: 1.80-3.97). Health characteristics were added to create a third model (general health, body weight, diabetes status, asthma status, and disability status) and Nevadans with a health care plan were still more than twice as likely to have completed an advance directive (AOR = 2.74, 95% CI, 1.81-4.14). Health behaviors (alcohol consumption, smoking status, physical activity, life satisfaction and the presence of children) were added for the final model and Nevadans with a health care plan were still over twice as likely to have a completed advance directive as Nevadans without a health care plan (AOR = 2.63, 95% CI: 1.73-3.98). Individual Odds Ratio statistics for age and education variables are presented in Table 4.

Table 3. Model Summary for Advance Directive Completion Predicted by Health Plan

Models*	Description	Odds Ratios (95% CI)
Model 1	AD vs. Health Plan	6.08 (4.38-8.51)
Model 2	AD vs. Health Plan, included Demographics*	2.67 (1.80-3.97)
Model 3	Health Plan vs. Health Plan, included Demographics and Health Characteristics**	2.74 (1.81-4.14)
Model 4	Health Plan vs. Health Plan, included Demographics, Health Conditions, and Health Behaviors***	2.63 (1.73-3.98)

Note: * Demographics include sex, age, race, income, educational level, employment status, and marital status; ** Health characteristics include general health, body weight, diabetes status, asthma status, and disability status; *** Health behaviors include alcohol consumption, smoking status, physical activity, life satisfaction and the presence of children.

Table 4. Advance Directive Completion Predicted by Age and Education Groups

Characteristic Comparisons	Odds Ratios* (95% CI)
Age	
18-34 vs. 35-54	2.07 (1.42-3.01)
18-34 vs. 55+	4.90 (3.36-7.15)
35-54 vs. 55+	2.67 (1.85-3.03)
Education	
Less than College vs. College Graduate	1.50 (1.15-1.96)
Some College vs. College Graduate	2.11 (1.59-2.82)
Less than College vs. Some College	0.71 (0.54-0.93)

Note: * Odds ratios adjusted by health plan status and other demographics including sex, age, income, employment status, and marital status.

When demographics, health characteristics and health behaviors are controlled for adult Nevadans who have a health care plan are still more likely to have completed an advance directive than adult Nevadans without a health care plan.

DISCUSSION

The current study demonstrates that having health care insurance (either private or public: Medicaid and/or Medicare) among adult Nevadans is the third strongest predictor for AD completion, after age and a college education. Even considering numerous health and demographic variables, the adjusted odds ratio for completing an advance directive was 2.74 for Nevadans with health insurance vs. those without.

A little over seventy eight percent of Nevadans (ages 18-64) had health insurance in 2007/2008 (Commonwealth Fund, 2009). The Institute of Medicine (IOM, 2009) reported early in 2009 that adults without health insurance coverage were less likely to receive preventive services, and had poorer health outcomes for those undergoing cancer, cardiovascular disease, stroke, respiratory failure, chronic obstructive pulmonary disease, hip fracture, seizures and serious injury. Uninsured patients were also more likely to experience increased morbidity and premature death. Conversely, when adults acquire health insurance, many of these negative consequences are mitigated, and overall well-being is enhanced. Additionally, as our data indicate, having health care insurance is postively related to AD completion, which promotes patient autonomy and more appropriate patient care. ADs are critical to delivering appropriate care at the end of life. The vast majority of those completing an AD do not choose life-sustaining treatment (Cross, 1998; Emanuel, et al., 1991). Nevertheless, 28% of all Medicare costs are generated in the last year of life with about 50% of these costs accrued in the last two months of life (Lubitz and Prihoda, 1984; Lubitz and Riley, 1993).

On November 7, 2009 the US Congress passed *Affordable Health Care for America Act* which provides for the "dissemination of information related to end-of-life planning to individuals seeking enrollment in Exchange-participating health benefits plans offered through the Exchange" (Sec. 240(a)(1). The term "advance directive" can include a living will, a comfort care order, or a durable power of attorney for health care (US-GPO, 2009; US-GPO, 2010). It is clear that those with insurance are more likely to make their end of life preferences known through execution of an advance directive. Speculation may suggest that the presence of health insurance reassures the insured that treatment will not be limited for cost-savings. Further study is required to establish the actual behavioral motivation health care insurance plays in the completion of advance directives.

In 1977, the Nevada State Legislature approved a bill establishing the Living Will, also known as the Declaration to the Physician. This document enables individuals to indicate their treatment preferences at the end of life. In 1987, the Legislature passed a companion document --- the Durable Power of Attorney for Health Care which allows a person to designate a health care representative (a.k.a 'proxy' or 'attorney-in-fact') to make health care decisions on the patient's behalf if he or she is incapacitated. In 2007, the Nevada Center for Ethics and Health Policy worked with Assemblyman David Bobzien in the passing of AB 158 which created a free and voluntary Registry of Advance Directives for Health Care called the Living Will Lockbox housed at the Secretary of State Office (NVSOS, 2010). It is a secure, access-protected, electronic database to file directives including living wills, durable powers of attorney for health care, and do not resuscitate orders (DNR). During the year since its inception, the Lockbox has had 1,887 registrants with an average of 150 new registrants per month, and 15 health care providers (Miller, 2009). Several states have established some form of Advance Directive registries with much success such as Arizona, North Carolina, Idaho, Louisiana, Montana, Vermont, Washington and others. In partnership with the U.S. Living Will Registry, the Nevada Secretary of State established a secure web-based database which provides authorized health care providers and registrants online access to their directives 24/7, and wherever there is an internet connection. Some of the consumer comments (U.S. Living Will Registry) include: "One woman told me that she was so glad she had a safe place to put her AD, as she keeps moving it from file to file and can never remember where she put it." "This is the only way to have your wishes, in regards to your life, completed as you requested at times you cannot speak or write." "I did this so it takes the burden off my children. They do not have to worry about making any life altering decisions. I also do not want any prolonged life that would not have any quality." "My mother had a living will and it was wonderful to be able to follow her wishes as severe dementia claimed her mind." Over the years, much has been done to engage Nevadans with the importance of advance directives. With an expanding partnership among consumers, health insurers, care providers and state agencies, it is hoped that discussions on end of life care can be part of the mainstream conversations in our daily living.

References

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1. American Association of Retired Persons (AARP). 2008. AARP Bulletin Poll: Getting Ready to Go Executive Summary. AARP.org, Surveys and Statistics. Washington, D.C. 2008.

2. Beck A, Brown J, Boles M, Barrett P. 2002. Completion of Advance Directives by Older Health Maintenance Organization Members: The Role of Attitudes and Beliefs Regarding Life-Sustaining Treatment. *J Am Geriatr Soc*. 2002;50(2):300-306.

3. Bomba P and Puretz J. 2008. Management ConsultantEmployee Healthcare Decisions Survey (2008): Summary Report. Univera Healthcare. 2008.

4. Campbell MJ, Edwards MJ, Ward KS, Weatherby N. 2007. Developing a Parsimonious Model for Predicting Completion of Advance Directives. *Journal of Nursing Scholarship*. 2007;39(2):165-171.

5. Centers for Disease Control and Prevention (CDC). 2004. Behavioral Risk Factor Surveillance System (BRFSS). Operational and User's Guide, Version 3.0. CDC Centers for Disease Control and Prevention. Atlanta, GA. 2004.

6. Centers for Disease Control and Prevention (CDC). 2008. 2008 Behavioral Risk Factor Surveillance System, Summary Data Quality Report 2009 Apr 3. Pp 32-33. CDC Centers for Disease Control and Prevention. Atlanta, GA. 2004.

7. Dinger E. 2005. AARP Massachusetts End of Life Survey. [Internet]. Washington (DC): AARP.org, Surveys and Statistics. 2005.

8. Duke G, Thompson S, and Hastie M. 2007. Factors influencing completion of advance directives in hospitalized patients. *International Journal of Palliative Nursing*. 2007;13:39-43.

9. Emanuel LL, Barry MJ, Stoeckle JD, Ettelson LM, and Emanuel EJ. 1991 .Advance directives for medical care--a case for greater use. *New England Journal of Medicine*. 1991 Mar 28;324(13):889-895.

10. Gordon NP and Shade SB. 1999. Advance directives are more likely among seniors asked about end of life care preferences. *Archives of Internal Medicine* 1999 Apr 12;159:701-704.

11. Gross MD. 1998. What do patients express as their preferences in advance directives? *Archives of Internal Medicine.* 1998 158(4):363-365

12. Institute of Medicine (IOM). 2009. America's Uninsured Crisis: Consequences for Health and Health Care. Institute of Medicine. Washington, D.C. 2009.

13. Lubitz J and Prihoda R. 1984. The use and costs of Medicare services in the last 2 years of life. *Health Care Financing.* 1984 Spring;5(3):117-31.

14. Lubitz JD and Riley GF. 1993. Trends in Medicare payments in the last year of life. *N Engl J Med* 1993 Apr 15;328(15):1092–1096.

15. Luptak M and Boult C. 1994. A method of increasing elders' use of advance directives. *Gerontologist*. 1994;34(3):409-412.

16. Mezey MD, Leitman R, Mitty EL, Bottrell MM, and Ramsey GC. 2000. Why Hospital Patients Do and Do Not Execute an Advance Directive. *Nursing Outlook*. 2000;48(4):165-171.

17. Morrison, S.R. and Meier, D.E. 2004. High rates of advance care planning in New York City's elderly population. *Archives of Internal Medicine.* 2004 Dec 13/27;164:2421-2426.

18. Nevada Secretary of State (NVSOS). 2010. Living Will Lockbox. Cited on September 28, 2010. http://nvsos.gov/index.aspx?page=214.

19. SAS System. Version 13. Cary, NC: SAS Institute Inc. 2007.

20. Silberman SL. 2004. Minnesota Advance Directives Survey. Washington (DC): AARP.org, Surveys and Statistics. 2004.

21. Straw G and Cummins R. 2003. AARP North Carolina End of Life Care Survey [Internet]. Washington (DC): AARP.org, Surveys and Statistics. 2003.

22. Teno J, Gruneir A, Schwartz B, Nanda A, and Wetle T. 2007. Association between Advance Directives and Quality of End-of-Life Care: A National Study. *J Am Geriatr Soc*. 2007;55(2):189-194.

23. TPRC. 2006. Strong Public Support for Right to Die: More Americans Discussing – and Planning – End-of-Life Treatment [Internet]. Washington (DC): The Pew Research Center for the People & the Press. 2006.

24. Univera Healthcare (UH). 2008. End-of-Life Care Survey of Upstate New Yorkers: Advance Care Planning Values and Actions: Summary Repor*t* 2008 [Internet]. Univera Healthcare. 2008 – [Cited 2009 October 22]. Available from http://www.compassionandsupport.org/pdfs/research/End-of-life_survey-UN.pdf.

25. US-GAO. 1995. Patient Self-Determination Act: Providers Offer Information on Advance Directives but Effectiveness Uncertain [Internet]. Washington (DC): GAO US Government Accountability Office. Report to the Ranking Minority Member, Subcommittee on Health, Committee on Ways and Means, House of Representatives. 1995.

26. US-GPO. 2009. H.R.3962, Affordable Health Care for America Act [Internet]. Washington (DC). U.S. Government Printing Office. 2009.

27. US-GPO. 2010. H.R.3590, Affordable Health Care for America Act [Internet]. Washington (DC). U.S. Government Printing Office. 2010.

28. Wissow LS, Belote A, Kramer W, Comptom-Phillips A, Kritzler R, Weiner JP. 2004. Promoting Advance Directives Among Elderly Primary Care Patients. *J Gen Intern Med.* 2004;19(9):944-951.

29. Perkins, HS. (2007) 'Controlling Death: The False Promise of Advance Directives', *Annals of Internal Medicine* 147, pp.51-57.

30. O'Reilly KB. (2009) 'Defective directives? Struggling with end-of-life care' *American Medical News* http://www.ama-assn.org/amednews/2009/01/05/prsa0105.htm

31. Miller R. (2009) 'Nevada's Living Will Lockbox: the Registry of Advance Directives for Health Care' *Report to the 75th Session of the Nevada Legislature* http://nvasc.org/http://nvasc.org/wp-content/uploads/2008/10/nevada-living-will-lockbox.pdf (Cited on 15 November 2010)

32. U.S. Living Will Registry (n.d.) 'Testimonials from Registrants' http://www.uslivingwillregistry.com/testimonials_registrants.shtm (Cited on 15 November 2010)

33. Tilden, V.P., Tolle, S.W., Nelson, C.A., Fields, J. (2001). 'Family Decision-Making to Withdraw Life-Sustaining Treatments from Hospitalized Patients.' *Nursing Research* 50, pp. 105-115.

34. The Commonwealth Fund (2009) 'State Scorecard: Nevada' http://www.commonwealthfund.org/Maps-and-Data/State-Scorecard-2009/DataByState/State.aspx?state=NV (Cited on 30 October 2010)

Table 2. Advanced Directives Completion Rates by Insurance Status

	Completed Advanced Directives (%)*			No Advanced Directives (%)*		
	Uninsured	Insured	Total	Uninsured	Insured	Total
Total	5.91	94.09	31.28	27.63	72.37	68.80
Sex						
Male	5.82	94.18	30.30	29.76	70.24	69.71
Female	5.99	94.01	32.09	25.45	74.55	67.90
Age						
18-34	9.48	90.52	11.74	37.76	62.24	88.26
35-54	10.26	89.74	25.80	25.40	74.60	74.20
>55	2.84	97.16	55.88	13.36	86.64	44.12
Race						
White Non-Hispanic	5.07	94.93	38.11	15.90	84.10	61.89
Black Non-Hispanic	13.25	86.75	33.39	11.11	88.89	66.61
Hispanic	15.11	84.89	11.02	53.80	46.21	88.98
Other	2.95	97.05	30.86	21.93	78.07	69.14
Marital Status						
Married	4.68	95.32	33.69	22.11	77.89	66.31
Divorced	12.92	87.08	36.02	22.42	77.58	63.98
Widowed	1.65	98.35	63.17	14.69	85.31	36.83
Other	8.95	91.05	14.81	41.80	58.20	85.19
Income						
Less than 25,000	12.47	87.53	21.93	56.47	43.53	78.07
25,000-49,999	7.41	92.59	27.27	30.10	69.90	72.73
More than 50,000	3.92	96.08	35.49	8.48	91.52	64.51
Education						
Less than HS or HS or GED	8.19	91.81	21.26	38.90	61.10	78.74
Some Post HS	5.69	94.31	32.41	20.58	79.42	67.59
College Graduate	4.55	95.45	43.97	14.29	85.71	56.03
Employment						
Out of Work	4.15	95.85	41.15	35.38	64.62	58.85
Employed or Self-Employed	7.99	92.01	24.54	22.68	77.32	75.46
General Health						
Not at Risk	5.69	94.31	30.41	25.61	74.39	69.59
At Risk	6.80	93.20	34.52	36.71	63.29	65.48
Body Weight						
No Risk	4.91	95.09	30.80	25.25	74.75	69.20
At Risk	5.45	94.55	31.52	27.43	72.57	68.48
Diabetes						
No	6.44	93.56	29.58	28.46	71.55	70.42
Yes	2.62	97.38	47.66	15.73	84.27	52.34
Disability						
No	5.50	94.50	28.52	29.13	70.87	71.48
Yes	7.02	92.98	41.29	20.16	79.84	58.71
Asthma						
No	5.15	94.85	30.92	28.69	71.31	69.08
Yes	13.12	86.88	33.88	17.21	82.79	66.12
Life Satisfaction						
Satisfied	5.58	94.42	31.84	26.85	73.15	68.16
Dissatisfied	12.99	87.01	21.56	36.96	63.04	78.44
Heavy Drinking						
No	5.82	94.18	31.95	26.06	73.94	68.05
Yes	7.17	92.83	25.64	36.29	63.71	74.36
Smoking Status						
Current Smoker	12.17	87.83	21.61	36.15	63.85	78.39
Former Smoker	4.03	95.97	43.87	16.88	83.12	56.13
Never Smoked	5.28	94.72	29.15	27.83	72.17	70.85
Exercise						
Yes	5.17	94.83	32.97	26.13	73.87	67.03
No	8.33	91.67	26.47	31.24	68.76	73.53
Presence of Children						
No	4.86	95.14	39.48	23.54	76.46	60.52
Yes	8.64	91.36	20.20	31.78	68.22	79.80

Note: * Rates are weighted to account for the complex survey design and weighted sampling probabilities.