

Tracking Report

 \dashv RESULTS FROM THE COMMUNITY TRACKING STUDY ullet NO. 20 ullet AUGUST 2008

Striking Jump in Consumers Seeking Health Care Information

Ha T. Tu and Genna R. Cohen

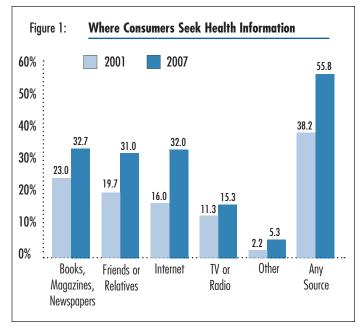
In 2007, 56 percent of American adults — more than 122 million people—sought information about a personal health concern, up from 38 percent in 2001, according to a new national study by the Center for Studying Health System Change (HSC). Use of all information sources rose substantially, with the Internet leading the way: Internet information seeking doubled to 32 percent during the six-year period. Consumers across all categories of age, education, income, race/ethnicity and health status increased their information seeking significantly, but education level remained the key factor in explaining how likely people are to seek health information. Although elderly Americans — 65 and older — sharply increased their information seeking, they still trail younger Americans by a substantial margin, especially in using Internet information sources. Consumers who actively researched health concerns widely reported positive impacts: More than half said the information changed their overall approach to maintaining their health, and four in five said that the information helped them to better understand how to treat an illness or condition.

HEALTHY GROWTH IN INFORMATION SEEKING

In 2007, approximately 56 percent of all American adults—more than 122 million people—reported seeking information about a personal health concern during the previous 12 months, up significantly from 38 percent—72 million people—in 2001, according to findings from HSC's nationally representative 2007 Household Health Tracking Survey (see Data Source and Figure 1). The survey asked adults whether, during the past 12 months, they had looked for or obtained information about a personal health concern from a variety of sources other than their doctor, including books, magazines or newspapers; television or radio; friends or relatives; and the Internet.

DOUBLING OF ONLINE HEALTH SEEKERS

Consumers increased their use of all information sources over the six-year period, but the Internet stood out as the most rapidly growing source of health information. Thirty-two percent of



All 2001-2007 differences are statistically significant at p < .05.

Note: Categories are not mutually exclusive; respondents could select multiple categories.

Sources: HSC 2001 Community Tracking Study Household Survey and HSC 2007 Health

Tracking Household Survey

consumers—70 million adults—conducted online health searches in 2007, compared with 16 percent in 2001. This doubling of online seekers was facilitated by substantial growth in overall Web access and exponential growth in residential broadband (high-speed) Internet access during this time. Additionally, the number of health-related Web sites available to consumers has expanded dramatically over the past several years.

Consumers' use of the Internet for health information is now on par with their use of the more traditional, longstanding sources of books, magazines and newspapers (33%) and friends or relatives (31%), which also increased significantly since 2001. These information sources are neither mutually exclusive nor independent of one another. For example, consumers who obtain health information from the Internet may not only become information sources to people in their own social networks, but also may influence those people to seek additional health information directly from the Internet. And, health information first disseminated in one medium (e.g., a print journal) can quickly become accessible to many more consumers through other channels, including both health-specific and general news Web sites. These interactions among information sources may help explain consumers' increasing tendency to use multiple information sources (35% in 2007 vs. 21% in 2001).

EDUCATION LEVEL REMAINS KEY

The sizeable increase in information seeking between 2001 and 2007 was not limited to any particular segment of American consumers. Indeed, every single category of age, education, income, race/ethnicity and health status saw substantial growth in levels of information seeking overall, from the Internet, and from multiple sources (see Supplementary Table 1).

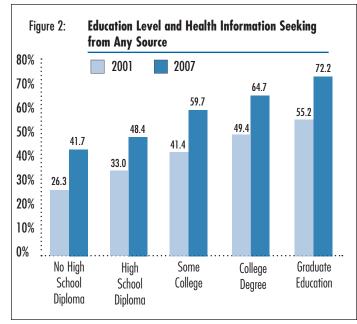
In 2001, a consumer's education level stood out as the personal characteristic most strongly associated with the tendency to seek health information. Six years later, it remains true that information seeking rises sharply as the level of education increases (see Figure 2).³ In 2007, 72 percent of people with a graduate education sought health information, compared with 42 percent of those without a high school diploma, and the gap was even wider for Internet use (52% vs. 10%).

Although education appears to exert the strongest influence on information-seeking behavior, other characteristics also come into play. As expected, people with chronic conditions are more likely to seek health information. In addition, once other

Data Source

This Tracking Report presents findings from the 2000-01 Community Tracking Study Household Survey and the 2007 Health Tracking Household Survey. Both surveys include nationally representative samples of the civilian, noninstitutionalized population. Sample size was about 60,000 people for the 2000-01 survey and about 18,000 people for the 2007 survey. Response rates were 59 percent in 2000-01 and 43 percent in 2007. In both surveys, population weights adjust for differences in nonresponse based on age, sex, race or ethnicity, and education. Although both surveys are nationally representative, the sample for the 2000-01 survey was largely clustered in 60 representative communities, while the 2007 survey was based on a stratified random sample of the nation. These differences in sample design are accounted for in the standard errors of estimates and in statistical tests of change between survey years. Questionnaire design, survey administration, and the question wording of all measures in this study were similar across both surveys.

Adult respondents in both surveys were asked: "During the past 12 months, did you look for or get information about a personal health concern?" and then were presented a list of information sources to which they could respond yes or no; respondents also could name other sources not on the list. Information seeking "about a personal health concern" is treated in this analysis as synonymous with information seeking for the respondents themselves. In the 2007 survey, adult respondents also were asked: "During the past 12 months, did you look for or get information about a health concern for another adult, such as a friend or family member?" and then asked to identify the sources they used, as described above. In both 2000-01 and 2007, only the family informant was asked about information seeking for a selected child in the family: "During the past 12 months, did you (or your husband/wife/partner if married) look for or get information about a health concern for (child's name)?" and then asked to identify the sources they used, as described above.



All 2001-2007 differences are statistically significant at p < .05.

Note: Categories are not mutually exclusive; respondents could select multiple categories.

Sources: HSC 2001 Community Tracking Study Household Survey and HSC 2007 Health

Tracking Household Survey

personal characteristics are accounted for, women are more likely than men, younger consumers are more likely than older consumers, whites and African Americans are more likely than Hispanics, and people with the highest incomes are more likely than those with the lowest incomes to seek health information. These differences, unlike education, are mostly modest to moderate in magnitude.

Some of the groups least inclined to seek information in 2001 have experienced the sharpest increases in information seeking since then. For example, between 2001 and 2007, elderly consumers and those with less education both increased their Internet health information seeking by about 2.5 times. As a result, gaps between the elderly and the young and people with low and high education levels narrowed somewhat by 2007. However, because baseline levels of information seeking were so low for elderly and less-educated consumers, the magnitude of the age and education gaps remains formidable. Seniors, for example, are still only half as likely as consumers aged 18 to 49 to turn to the Internet for information about a personal health concern (18% vs. 36%).

IMPACT OF INFORMATION SEEKING

More than half of all adults who sought health information later spoke with their doctor or other health care professional about that information (see Supplementary Table 2). Two consumer characteristics had a pronounced effect on the likelihood of sharing health information with care providers: the level of a patient's education and the number of chronic conditions—the

same factors most strongly associated with seeking information in the first place.⁴ Compared with healthy people, chronically ill people are more likely to have reason to research condition-specific information to discuss with their doctors; they also have more opportunities for such discussions, as they visit doctors and other medical professionals more frequently than people without chronic conditions.⁵

Among consumers who sought health information for themselves, half reported that the information changed their overall approach to maintaining their own health. This effect was relatively uniform across demographic subgroups, with one notable exception: African American and Hispanic consumers were substantially more likely than white consumers to report this impact on health behavior, after controlling for other personal characteristics.

The most striking finding on the impact of health information is that four of five information seekers found information that helped them to better understand how to treat an illness or condition. This positive impact on consumers' health knowledge was consistently high across demographic subgroups. African American and Hispanic information seekers were again more likely than their white counterparts to report that the information had a beneficial impact on their knowledge about treating an illness or condition. One possible explanation is that minority consumers are more likely than whites not to have a usual doctor or other care provider. Consumers without a regular care provider to supply them with health information may find information obtained from other sources has more impact on their health knowledge or behaviors.

Unlike the initial inclination to seek health information, which varied widely by consumer education levels, the impacts of the information were much more even. It appears that once consumers are engaged enough to actively seek health information, even those with less education are likely to find useful information sources.

INFORMATION SEEKING FOR OTHERS

Consumers were active in searching for health information not just for themselves, but also for others. In 2007, 42 percent of adults sought information on behalf of other adults; 27 percent did so using the Internet.⁷ In addition, 29 percent of children had health information sought on their behalf by their parents in 2007—a moderate but significant increase from 22 percent in 2001.

In patterns similar to those seen in consumers' information seeking for themselves, education was a key driver in information seeking on behalf of others. For example, consumers with a graduate education were nearly four times as likely to seek Internet health information on behalf of other adults as those without a high school diploma. Children of younger, more educated, and higher-income parents were more likely to have information sought on their behalf.

Not surprisingly, people inclined to search for health information for themselves also were more active in seeking information on behalf of others. Among people who sought health information for other adults, about four in five also sought information about their own health concerns in the past year. Women were more prone than men to seek information on behalf of other adults, likely reflecting the greater frequency with which women act as caregivers and care coordinators for the rest of the family, including spouses and elderly parents.⁸

IMPLICATIONS

In recent years, consumers have faced a growing financial burden from rising health care expenses. Costs of medical services and insurance premiums have outpaced income growth, resulting in rising rates of uninsurance. Moreover, many insured consumers face increased cost-sharing requirements. Consumers' increased financial responsibility for health care likely plays an important role in their motivation to seek more health information, particularly about treatment options and costs.

Besides financial pressures, consumers increasingly face more problems obtaining timely appointments with their doctors9 and limited time to discuss each of their health concerns once they do see doctors during office visits.¹⁰ Some consumers—especially informed consumers—also may be aware that their physicians are unlikely to have sufficient time and resources to keep up with an overwhelming volume of new medical literature.11 These consumers, even if they face few cost or access pressures, may be motivated to research health concerns on their own. In addition, consumers are now more likely than in the past to be confronted with information from such sources as public health campaigns, employer-led health and wellness promotion efforts, and directto-consumer pharmaceutical and medical device advertising. All these factors likely have played significant roles in increasing consumer motivation to obtain health information from sources other than their doctors. And, as noted earlier, consumers' access to health information has greatly increased with the spread of broadband Internet use and the increase in health-related Web sites.

Despite the dramatic growth in Internet information seeking in recent years, there are still at least 50 million Americans who sought health information for themselves or others, but did not conduct any health searches online. These consumers may find themselves increasingly left behind as many new, valuable sources of health information—such as hospital and physician quality reports—are released solely through online channels. While these offline information seekers may still be exposed to Internet-only material via media coverage or friends and family, the information they receive would not be as complete or up-to-date after being filtered through intermediate information sources.

Among consumers who obtain health information, it is encouraging that so many consumers across all age, education, income and racial/ethnic groups report positive effects from that information—effects such as increased understanding of conditions and treatments and a changed approach toward maintaining their own health. One caveat, however, is that these subjective, self-reported assessments may not represent actual improvements in consumer health behaviors or knowledge. Moreover, some consumers may not be taking a sufficiently critical approach to the information they come across or may have difficulty processing information correctly. Previous research has found that many consumers lack basic health literacy and numeracy skills.¹³ While most information seekers feel empowered by the health information they find,¹⁴ some may be misled by less valid or credible sources. This is a concern especially for consumers who use information to self-diagnose and self-treat health problems without consulting a doctor or other health professional.

There are important roles for policy makers to play in supporting consumers' health information seeking efforts. On health information initiatives that they sponsor directly, policy makers can work to ensure that the information presented is accurate, timely, relevant and useful to consumers across a broad spectrum of health literacy and numeracy levels. For example, some current price and quality transparency programs sponsored by federal and state government agencies report data not applicable to many consumers and present health data in ways likely to be meaningful only to more sophisticated consumers.

Policy makers also can provide resources to help consumers sift through the proliferating number of third-party health information sources to identify material that is both accurate and appropriate to their needs. Some of these efforts are already underway. For example, the Office of Disease Prevention and Health Promotion in the U.S. Department of Health and Human Services recently added Health Communication as one of the focus areas in Healthy People 2010 and has produced several guides to assist people seeking health information, including lists of recommended resources.¹⁵

Notes

- 1. Horrigan, John B., and Aaron Smith, *Home Broadband Adoption 2007*, Data Memo, Pew Internet & American Life Project, Washington, D.C. (June 2007).
- 2. Noonan, David, "More Information, Please," Newsweek (Oct. 29, 2007).
- 3. Controlling for personal characteristics is important because (a) many demographic factors are correlated with one another, and (b) the need to obtain health information varies by demographic characteristic (e.g., between the healthy and sick). The remainder of the Tracking Report discusses regression-adjusted results (shown in Supplementary Tables 1 and 2) derived from a multivariate model. For descriptive (unadjusted) results, see Supplementary Tables 3 and 4.
- 4. Other research also found adults with chronic conditions more likely to talk to a health professional about health information they found. See Fox, Susannah, *E-patients with a Disability or Chronic Disease*, Pew Internet & American Life Project, Washington, D.C. (October 2007).

- Adults with multiple chronic conditions average 9.0 visits per year to doctors or other medical professionals, compared to 5.1 visits for adults with one chronic condition, and 2.7 visits for adults with no chronic condition.
- 6. Data available from authors.
- 7. In total, 65 percent of adults sought information either for themselves or other adults in 2007; 40 percent did so using the Internet.
- 8. Salganicoff, Alina, Usha R. Ranji and Roberta Wyn, Women and Health Care: A National Profile. Key Findings from the Kaiser Women's Health Survey, The Kaiser Family Foundation (July 2005).
- Cunningham, Peter J., and Laurie E. Felland, Falling Behind: Americans' Access to Medical Care Deteriorates, 2003-2007, Tracking Report No. 19, Center for Studying Health System Change, Washington, D.C. (June 2008).
- 10. Tai-Seale, Ming, Thomas G. McGuire, and Weimin Zhang "Physician and Time Allocation in Primary Care Office Visits," *Health Services Research*, Vol. 42, No. 5 (October 2007); Yawn, Barbara, et al., "Time Use During Acute and Chronic Illness Visits to a Family Physician," *Family Practice*, Vol. 20, No. 4 (August 2003).
- 11. Davis, Dave, et al. "Assessing and Scaling the Knowledge Pyramid: The Good-Guideline Guide," *Canadian Medical Association Journal*, Vol. 174, No. 3 (Jan. 31, 2006).
- 12. Data available from authors.
- 13. Davis, Terry C., et al., "Literacy and Misunderstanding Prescription Drug Labels," *Annals of Internal Medicine*, No. 145, Vol. 12 (Dec. 19, 2006); Peters, Ellen, et al., "Numeracy Skill and the Communication, Comprehension, and Use of Risk-Benefit Information," *Health Affairs*, Vol. 26, No. 3 (May/June 2007).
- 14. Fox, Susannah, *Health Information Online*, Pew Internet & American Life Project, Washington, D.C. (May 2005).
- 15. U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion, Report on Objective 11-4: Estimating the Proportion of Health Related Websites Disclosing Information That Can Be Used to Assess Their Quality, Washington, D.C. (May 30, 2006).



Tracking Reports are published by the Center for Studying Health System Change.

President: Paul B. Ginsburg

Contact HSC at:

600 Maryland Avenue, SW, Suite 550 Washington, DC 20024-2512 Tel: (202) 484-5261 Fax: (202) 484-9258 www.hschange.org

STRIKING JUMP IN CONSUMERS SEEKING HEALTH CARE INFORMATION SUPPLEMENTARY TABLES

	2001 and 2007 (Regression-Adjusted) ¹						
	All Adults Sought Information From Sought Information From Sought Inform					mation From	
		Any Source		Multiple Sources		the Internet	
	2001	2007	2001	2007	2001	2007	
All Adults	38.8%	55.1%*	21.7%	34.6%*	16.3%	31.7%*	
Chonic Conditions							
None (R)	33.5	49.6*	18.2	29.8*	13.8	28.3*	
One	43.3#	59.6*#	24.2#	38.8*#	19.3#	34.7*#	
Two or More	49.1#	66.0*#	29.3#	43.7*#	13.9#	27.7*#	
Sex							
Female (R)	42.9	60.0*	25.2	39.3*	18.6	35.4*	
Male	34.4#	49.9*#	17.9#	29.5*#	13.9#	27.7*#	
Age Group							
18-34 (R)	43.0	57.9*	24.0	35.6*	20.0	36.3*	
35-49	41.2#	56.4*	23.9	36.8*	19.6	36.1*	
50-64	36.1#	54.5*#	20.4#	35.1*	13.6#	29.2*#	
65 and Older	31.1#	48.4*#	16.0#	28.3*#	7.0#	17.6*#	
Education							
No High School Diploma	26.3#	41.7*#	12.7#	21.6*#	4.5#	10.3*#	
High School Diploma	33.0#	48.4*#	16.7#	28.8*#	10.2#	24.1*#	
Some College	41.4#	59.7*#	23.8#	38.3*#	18.5#	36.1*#	
College Degree	49.4#	64.7*#	29.8#	43.6*#	24.7#	44.2*#	
Graduate Education (R)	55.2	72.2*	35.0	51.3*	29.0	52.3*	
Family Income							
Below 200% of Poverty	37.3#	52.9*#	19.9#	34.3*	12.7#	28.6*#	
200-399%	38.0#	55.2*	21.6#	33.6*	15.7#	30.7*#	
400-599%	40.3	56.2*	22.5	35.7*	17.2#	33.9*	
600% or More (R)	40.3	57.0*	23.0	35.3*	18.7	33.6*	
Race/Ethnicity							
White (R)	38.8	55.6*	21.7	34.8*	17.3	33.2*	
African American	37.9	55.5*	19.9#	35.9*	12.3#	26.7*#	
Hispanic	39.5	49.4*#	22.8	30.5*#	13.5#	26.1*#	
Other	39.2	62.2*#	24.2#	38.9*	16.1	31.6*	

¹ Estimates are adjusted means derived from a multivariate model that controls for differences in personal characteristics, including age, sex, race/ethnicity, education, income, chronic conditions, health status and health insurance type. For unadjusted means, see Supplementary Table 3.

Sources: HSC 2001 Community Tracking Study Household Survey and HSC 2007 Health Tracking Household Survey

^{*} Significantly different from 2001 at p<.05.
Significantly different from the reference group (R) at p<.05.

STRIKING JUMP IN CONSUMERS SEEKING HEALTH CARE INFORMATION **SUPPLEMENTARY TABLES**

Supplementary Table 2:	Impact of Information Seeking, 2007 (Regression-Adjusted) ¹ Adults Who Sought Health Information						
	Talked to Doctor or Other Health Professional	Found That Information Changed Overall Approach to Maintaining Health	Found That Information Helped Them Understand How to Treat an Illness or Condition				
	2007	2007	2007				
All Adults	52.4%	50.8%	79.9%				
Chonic Conditions							
None (R)	45.4	49.8	78.1				
One	54.8#	52.1	80.8				
Two or More	63.4#	51.3	82.5#				
Sex							
Female (R)	54.6	52.2	80.4				
Male	49.4#	48.9#	79.4				
Age Group							
18-34 (R)	50.0	53.8	79.0				
35-49	56.4#	51.2	81.0				
50-64	54.2	50.3	80.9				
65 and Older	44.7	45.4#	77.6				
Education							
No High School Diploma	47.2#	43.6#	73.8#				
High School Diploma	48.0#	49.3#	79.0				
Some College	53.4#	53.2	81.6				
College Degree	54.8#	50.4	80.4				
Graduate Education (R)	59.8	54.6	82.2				
Family Income							
Below 200% of Poverty	51.2	53.3	82.4#				
200-399%	50.9#	51.1	79.5				
400-599%	52.0	48.7	79.7				
600% or More (R)	54.6	49.7	78.4				
Race/Ethnicity							
White (R)	52.8	47.0	77.6				
African American	52.1	63.3#	85.4#				
Hispanic	49.6	58.7#	86.8#				
Other	52.2	55.1#	81.9				

¹ Estimates are adjusted means derived from a multivariate model that controls for differences in personal characteristics, including age, sex, race/ethnicity, education, income, chronic conditions, health status and health insurance type. For unadjusted means, see Supplementary Table 4.

Significantly different from the reference group (R) at p<.05.

Source: HSC 2007 Health Tracking Household Survey

STRIKING JUMP IN CONSUMERS SEEKING HEALTH CARE INFORMATION **SUPPLEMENTARY TABLES**

Supplementary Table 3:	Adult Consumers' Information Seeking About Personal Health Concerns, 2001 and 2007 (Descriptive, Unadjusted) ¹						
	All Adults						
		Sought Information From Any Source		Sought Information From Multiple Sources		Sought Information From the Internet	
	2001	2007	2001	2007	2001	2007	
All Adults	38.2%	55.8%*	21.2%	35.2%*	16.0%	32.0%*	
Chonic Conditions							
None (R)	33.9	49.4*	18.3	29.5*	15.1	29.7*	
One	43.2#	61.6*#	24.3#	40.8*#	19.0#	36.4*#	
Two or More	45.6#	66.1*#	26.3#	44.1*#	15.4	33.2*#	
Sex							
Female (R)	42.5	61.0*	24.7	40.4*	18.1	35.5*	
Male	33.3#	50.2*#	17.2#	29.7*#	13.7#	28.2*#	
Age Group							
18-34 (R)	38.2	52.1*	20.6	30.9*	17.1	31.1*	
35-49	40.4#	57.0*#	23.4#	37.6*#	20.6#	38.3*#	
50-64	39.0	60.4*#	22.4#	40.3*#	16.2	35.9*#	
65 and Older	32.9#	53.0*	16.4#	30.8*	5.4#	15.4*#	
Education							
No High School Diploma	26.4#	40.6*#	12.6#	21.6*#	3.2#	7.9*#	
High School Diploma	32.7#	49.0*#	16.4#	29.4*#	9.8#	23.3*#	
Some College	41.5#	60.8*#	24.0#	39.2*#	20.1#	38.2*#	
College Degree	48.2#	64.8*#	28.9#	43.4*#	27.6#	47.6*#	
Graduate Education (R)	53.7	72.1*	33.9	50.6*	31.7	54.5*	
Family Income							
Below 200% of Poverty	33.9#	48.7*#	17.3#	30.4*#	8.5#	19.9*#	
200-399%	36.7#	55.1*#	20.5#	33.4*#	15.1#	30.3*#	
400-599%	41.4#	58.9*	23.4#	38.3*	20.1#	40.0*	
600% or More (R)	43.4	61.5*	25.5	39.9*	24.0	40.6*	
Race/Ethnicity							
White (R)	38.8	57.6*	21.6	36.5*	17.7	35.6*	
African American	36.2#	56.2*	18.5#	36.8*	10.4#	25.6*#	
Hispanic	34.6#	42.8*#	19.0#	25.3*#	9.6#	18.2*#	
Other	41.7	64.0*#	26.2#	41.0*	19.0	34.5*	

 $^{^{1}}$ All estimates are descriptive (unadjusted) means. For adjusted means derived from a multivariate model that controls for differences in personal characteristics, including age, sex, race/ethnicity, education, income, chronic conditions, health status and health insurance type, see Supplementary Table 1.

* Significantly different from 2001 at p<.05.
Significantly different from the reference group (R) at p<.05.
Sources: HSC 2001 Community Tracking Study Household Survey and HSC 2007 Health Tracking Household Survey

STRIKING JUMP IN CONSUMERS SEEKING HEALTH CARE INFORMATION **SUPPLEMENTARY TABLES**

Supplementary Table 4:	Impact of Information Seeking, 2007 (Descriptive, Unadjusted) ¹ Adults Who Sought Health Information						
	Talked to Doctor or Other Health Professional	Found That Information Changed Overall Approach to Maintaining Health	Found That Information Helped Them Understand How to Treat An Illness or Condition				
	2007	2007	2007				
All Adults	52.4%	50.8%	79.9%				
Chonic Conditions							
None (R)	44.2	50.7	78.5				
One	55.8#	52.2	81.0				
Two or More	64.9#	49.3	81.6#				
Sex							
Female (R)	54.9	52.3	80.7				
Male	49.0#	48.8#	79.0				
Age Group							
18-34 (R)	42.5	54.6	78.8				
35-49	54.9#	51.7	81.0				
50-64	58.3#	50.0#	80.8				
65 and Older	54.3#	43.3#	78.5				
Education							
No High School Diploma	43.0#	48.0	76.1				
High School Diploma	47.5#	50.2	79.2				
Some College	53.9#	53.3	81.6				
College Degree	55.9#	48.5	79.6				
Graduate Education (R)	62.0	51.5	81.3				
Family Income							
Below 200% of Poverty	46.8#	53.6	81.3				
200-399%	50.6#	50.8	79.4				
400-599%	54.0	48.2	80.1				
600% or More (R)	57.2	50.0	79.2				
Race/Ethnicity							
White (R)	54.1	46.9	78.2				
African American	51.1	63.8#	85.1#				
Hispanic	41.7#	58.4#	84.4#				
Other	52.7	56.1#	82.3				

¹ All estimates are descriptive (unadjusted) means. For adjusted means derived from a multivariate model that controls for differences in personal characteristics, including age, sex, race/ethnicity, education, income, chronic conditions, health status and health insurance type, see Supplementary Table 2.

[#] Significantly different from the reference group (R) at p<.05. Source: HSC 2007 Health Tracking Household Survey