

Surprising Decline in Consumers Seeking Health Information

By Ha T. Tu

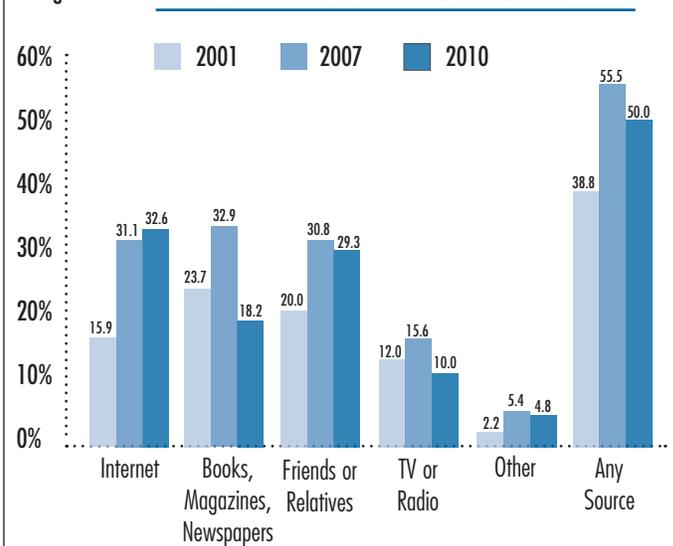
In 2010, 50 percent of American adults sought information about a personal health concern, down from 56 percent in 2007, according to a new national study from the Center for Studying Health System Change (HSC). The likelihood of people seeking information from the Internet and from friends and relatives changed little between 2007 and 2010, but their use of hardcopy books, magazines and newspapers dropped by nearly half to 18 percent. While the reduced tendency to seek health information applied to consumers across nearly all demographic categories, it was most pronounced for older Americans, people with chronic conditions and people with lower-education levels. Across all individual characteristics, education level remained the factor most strongly associated with consumers' inclination to seek health information. Consumers who actively researched health concerns widely reported positive impacts: About three in five said the information affected their overall approach to maintaining their health, and a similar proportion said the information helped them to better understand how to treat an illness or condition.

OVERALL HEALTH INFORMATION SEEKING DECLINES

In 2010, 50 percent of all American adults reported seeking information about a personal health concern during the previous 12 months, according to findings from HSC's nationally representative 2010 Health Tracking Household Survey (see Data Source). The proportion of consumers seeking health information fell from 56 percent in 2007 but still represents a sizeable increase over the past decade, up from 38 percent in 2001 (see 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.

Besides seeking information for their own health concerns, nearly two in five adults reported seeking health information on behalf of another person in the previous 12 months. However, because there was a great deal of overlap between those seeking information for themselves and for others, the total proportion of people seeking health information was 58 percent.

Figure 1: **Where Consumers Seek Health Information**



All differences across years are statistically significant at $p < .05$, except the 2007-2010 difference for the Other category.

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

Sources: HSC 2001 Community Tracking Study Household Survey; HSC 2007 and 2010 Health Tracking Household Survey

PRINT MEDIA USE FALLS SHARPLY

In 2007, there were three leading sources of health information—books, magazines and newspapers in print format; friends and relatives; and the Internet—each used by roughly one-third of adults to seek health information for themselves. By 2010, the use of friends/relatives and the Internet remained relatively steady, but the use of print media fell sharply—33 percent to 18 percent—accounting for much of the drop in overall information seeking.

This downward trend in use of print media for health information is partly explained by the declining circulation of print newspapers and magazines and the declining sales of hardcopy books.¹ In particular, print newspapers have experienced a downward spiral, as declining circulation and advertising revenues led many newspapers to increase their subscription and newsstand prices well above inflation,² leading to further circulation declines. The economic downturn likely played a role in making rising print media prices increasingly unaffordable for more consumers. Still, despite these media industry and broader economic trends, the magnitude of the decline in the use of print media as a source for health information over just three years is striking.

Nearly as surprising is the finding that use of the Internet for health information showed only a slight increase, from 31 percent in 2007 to 33 percent in 2010. During this period, residential broadband, or high-speed, Internet access continued to gain traction—growing from 47 percent to 66 percent of households³—yet Web-based health information seeking failed to keep pace.

EDUCATION LEVEL REMAINS KEY

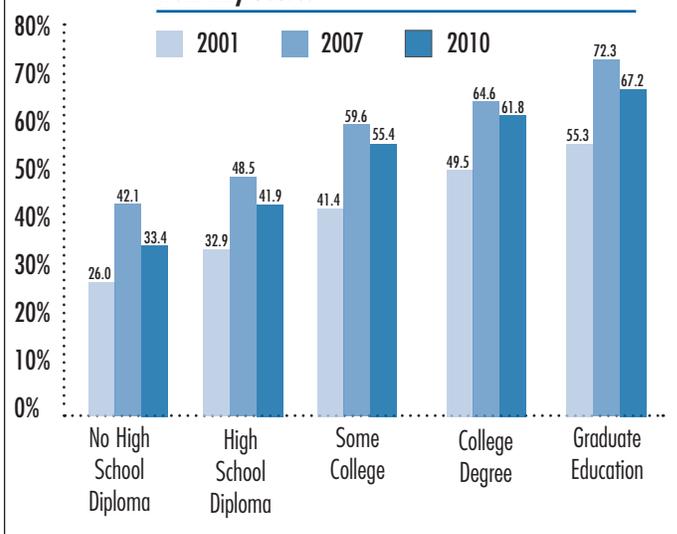
The decline in information seeking between 2007 and 2010 was not limited to any particular segment of American consumers. Indeed, across almost all demographic categories, including age, education, income, race/ethnicity and health status, health information seeking declined (see Supplementary Table 1). However, the reduced tendency to seek information was most pronounced among older Americans, people with chronic conditions and people with less education—some of the more vulnerable subgroups who might most benefit from health information.

Data Source

This Tracking Report presents findings from the HSC 2007 and 2010 Health Tracking Household Surveys and the 2001 Community Tracking Study Household Survey. All three telephone surveys used nationally representative samples of the civilian, noninstitutionalized population. For the first time, the 2010 survey included a cell phone sample because of declining percentages of households with landline phones. Sample sizes included about 60,000 people for the 2001 survey, about 18,000 people for the 2007 survey and about 17,000 people for the 2010 survey. Response rates for the surveys were 59 percent in 2001, 43 percent in 2007, and 46 and 29 percent, respectively, for the landline and cell phone samples in the 2010 survey. Population weights adjust for probability of selection and differences in nonresponse based on age, sex, race or ethnicity, and education. The weights also adjust for the increased probability of selection in cases of households using both landline and cell phones. Although all three surveys are nationally representative, the sample for the 2001 survey was largely clustered in 60 representative communities, while the 2007 and 2010 surveys were based on a random sample of the nation. Standard errors account for the complex sample design of the surveys. Questionnaire design and survey administration were similar across the three surveys.

Adult respondents in all three 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 2010 survey, adult respondents also were asked: “During the past 12 months, did you look for or get information about a health concern for someone else, such as a friend or family member?” and then asked to describe the sources they used, as described above. Because of significant question wording differences between the 2007 and 2010 surveys, tracking estimates are not available for information-seeking on behalf of others or for impact of information seeking for respondents themselves.

Figure 2: Education Level and Health Information Seeking from Any Source



Within each year, all differences across educational categories are statistically significant at $p < .05$. Sources: HSC 2001 Community Tracking Study Household Survey; HSC 2007 and 2010 Health Tracking Household Survey

Historically, a consumer’s education level has stood out as the factor most strongly associated with information seeking, and that remains true today. Information seeking rises sharply as the level of education increases. Once other personal characteristics are accounted for, people with a graduate education are twice as likely as those with no high school diploma to seek health information (67% vs. 33%)—a disparity that has grown since 2007 (see Figure 2).⁴ The gap between the most- and least-educated groups is even wider for Internet use (52% vs. 11%).

Although education appears to exert the strongest influence on information-seeking behavior, other characteristics also come into play. As expected, the more chronic health conditions people have, the more likely they are to seek health information. Also, women are more likely than men, younger consumers are more likely than older consumers, and whites are more likely than African Americans and Hispanics to seek health information. These differences, unlike education, are mostly modest to moderate in magnitude, after accounting for other personal characteristics. Differences in overall information seeking by income levels shrink dramatically—and in some cases, disappear altogether—once education and other personal characteristics are taken into account.

Elderly Americans—those aged 65 and older and the age group least inclined to seek health information despite experiencing the most health problems—experienced a substantial drop in overall information seeking (50% to 42%), largely the result of their use of print media being halved (35% to 18%). They did show significant growth in Internet use—though from a modest base (17% to 24%). This stands in contrast to younger age groups, who had already attained substantially higher rates

of Internet health information seeking earlier in the decade, but saw their Internet use plateau from 2007 to 2010. It is possible that since elderly people have historically been more dependent on print media for their health information, the decline in the availability of such information is prompting more elderly people to learn about Internet sources of information.

The socioeconomic profile of health information seekers differed markedly according to the types of information sources they used. The 22 percent of adults who sought health information from both Internet and non-Internet sources ranked as the group with the highest income and education levels.⁵ Not far behind that group in affluence and educational attainment were the 9 percent of adults who sought health information only from the Internet—the youngest group. Trailing substantially behind those groups on income and education levels were the 18 percent of adults who sought information from non-Internet sources only, and the 50 percent of adults who sought no information about personal health concerns.

IMPACT OF INFORMATION SEEKING

A majority of consumers who actively researched health concerns reported positive impacts from their information searches: 56 percent reported that the information affected their overall approach to maintaining their own health, and 60 percent said that the information affected their understanding about how to treat an illness or condition (see Supplementary Table 2). Among other types of impact the survey asked about (findings not shown):

- 38 percent said the information affected the way they coped with a chronic condition or managed pain;
- 43 percent said the information affected a decision about whether to see a doctor;
- 51 percent said the information affected whether they asked their doctor a question;
- 20 percent said the information affected a decision about seeking a second opinion from another doctor; and
- 50 percent said the information affected their approach to diet, exercise or stress management.

For most of these measures, the reported level of impact was relatively consistent across demographic subgroups.⁶ Across age groups, for example, the elderly are less likely to seek health information in the first place, but once they do, they appear at least as likely as younger consumers to find the information useful and empowering. However, education stands out as the one key exception to this pattern of relatively uniform impact across demographic characteristics. The self-reported positive impact of health information rises sharply as the level of education increases. This finding suggests that consumers with more education may be better equipped, first, to locate useful information

sources, and then to apply stronger health literacy skills to reap greater benefit from those information sources.

Consumers using the Internet for health information—either as their sole information source or in combination with other sources—were substantially more likely to report positive impacts than consumers using only non-Internet sources. However, after personal characteristics—in particular, education—were accounted for, the impact gap between the Internet and non-Internet groups narrowed considerably, becoming statistically insignificant in some cases.⁷ This finding reinforces the notion that consumers' education levels, which are likely to be linked closely to their health literacy skills, play an important role in determining how engaged or “activated” they are as patients,⁸ and how useful and actionable they find the health information that they obtain.

IMPLICATIONS

Since 2007, consumers have continued to face a growing burden from rising health care expenses. The economic downturn not only increased the ranks of the uninsured but also affected health care costs borne by insured consumers. This latter group saw premium contributions and cost-sharing requirements continue to outpace income growth, in both conventional insurance products and consumer-driven health plans.⁹ Given these increased financial pressures—which provide motivation for consumers to seek health information, especially about treatment options and costs—the decline in information seeking since 2007 is surprising.

Demand for health care declined between 2007 and 2010—with physician visits falling by 4 percent—a trend largely attributed to the economic downturn.¹⁰ Reduced demand for care, in turn, helped ease health system-related barriers to care, as significantly fewer people reported such problems as obtaining timely doctor appointments or getting through to a doctor's office by telephone. This decline in system-related barriers to care may have reduced some consumers' need or motivation for obtaining health information on their own. At the same time, one would expect to see other consumers—those cutting back on health care because of cost concerns—increasing their health information seeking, as a substitute for obtaining information from clinicians.

The decline in health information seeking may reflect, in part, consumers' reactions to their previous experiences with health information. Many people searching for health information have reported frustrating or negative experiences. For example, the National Cancer Institute's Health Information National Trends Survey found that nearly half of those who had sought cancer-related information expressed frustration with the information search itself, nearly three in five expressed concerns about the quality of the information and nearly two in five reported that the information they found was too hard to understand.¹¹ One possible—even likely—outcome for at least some of the consumers experiencing these frustrations is to stop seeking information.

The very abundance of information sources available about health—particularly on the Internet—may well be contributing to

information overload, anxiety and confusion by some consumers.¹² This phenomenon, which tends to be exacerbated when conflicting information is provided by different sources, may result in some consumers opting out of information seeking altogether.

Numerous public resources are available to help consumers navigate and assess the plethora of health information sources—especially those found online. One prominent example is MEDLINEplus, produced by the National Library of Medicine for the National Institutes of Health. It provides detailed guidelines on topics such as “Evaluating Health Information” and “Healthy Web Surfing,” aimed at helping the public evaluate the reliability and accuracy of online information sources. Such resources can be valuable consumer tools; however, the consumers best positioned to locate these resources and use them constructively likely are already informed, sophisticated consumers. As a result, the gap between the haves and have-nots among health information consumers is likely to continue growing.

In efforts to address this disparity, policy makers—including the Institute of Medicine and the Office of Disease Prevention and Health Promotion in the U.S. Department of Health and Human Services—have implemented initiatives both to improve health literacy in consumers and to make information accessible and actionable to consumers across a broader range of health literacy skills.

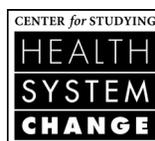
No matter how well these initiatives are implemented, however, it will remain a challenge to turn a substantial number of currently unengaged Americans into active, informed consumers of health information. Most of these Americans are likely to continue relying as best they can on their physicians, who have limited time available for patient education. This is an area where patient-centered medical homes have the potential to make key contributions, with other health professionals in the medical practice working with patients with chronic conditions to help them learn about and better manage their conditions. ■

NOTES

1. Perez-Pena, Richard, “U.S. Newspaper Circulation Falls 10%,” *The New York Times* (Oct. 26, 2009); Rosentiel, Tom, and Amy Mitchell, *The State of News Media 2011: An Annual Report on American Journalism*, Pew Research Center, Project for Excellence in Journalism (March 14, 2011); and Adams, Russell, “Magazine Circulation Falls Further,” *The Wall Street Journal* (Aug. 10, 2010).
2. HSC analysis of newspaper prices, 2007-10.
3. Smith, Aaron, *Home Broadband 2010*, Pew Research Center, Internet & American Life Project, Washington, D.C. (Aug. 11, 2010).
4. Because many of the factors in Supplementary Table 1 are correlated with each other, the estimates in the table and discussed in the text are based on regression-adjusted means. These are derived from multivariate regression analysis in which the dependent variables are based on the column variables in Supplementary Table 1 (three sepa-

rate regressions for each of the column variables), and the independent variables are based on the row variables. The regression coefficients are used to compute predicted probabilities for each of the row variables in Supplementary Table 1, which are interpreted as adjusted means and percentages that control for all other factors in the model.

5. Data available from author.
6. Data available from author.
7. Data available from author.
8. Hibbard, Judith H., and Peter J. Cunningham, *How Engaged Are Consumers in Their Health and Health Care, and Why Does It Matter?* Research Brief No. 8, Center for Studying Health System Change, Washington, D.C. (October 2008).
9. Kaiser Family Foundation/Health Research and Educational Trust, *Employer Health Benefits 2011 Annual Survey*, Washington, D.C. (September 2011).
10. Boukus, Ellyn R., and Peter J. Cunningham, *Mixed Signals: Trends in Americans’ Access to Medical Care, 2007-2010*, Tracking Report No. 25, Center for Studying Health System Change, Washington, D.C. (August 2011).
11. Arora, Neeraj K., et al., “Frustrated and Confused: The American Public Rates Its Cancer-Related Information-Seeking Experiences,” *Journal of General Internal Medicine*, Vol. 23, No. 3 (March 2008).
12. Bawden, David, and Lyn Robinson, “The Dark Side of Information: Overload, Anxiety, and Other Paradoxes and Pathologies,” *Journal of Information Science*, Vol. 35, No. 2 (April 2009); and Greenberg, Riva, “Health Care Advice: The Problem of Health Information Overload,” *The Huffington Post* (June 10, 2010), accessed at www.huffingtonpost.com/riva-greenberg/health-care-advice-the-pr_b_605606.html.



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SURPRISING DECLINE IN CONSUMERS SEEKING HEALTH INFORMATION

SUPPLEMENTARY TABLES

| Supplementary Table 1: | Adult Consumers' Information Seeking About Personal Health Concerns, 2007 and 2010 (Regression-Adjusted)¹ | | | | | |
|---------------------------|---|--------|---|--------|---|--------|
| | All Adults | | | | | |
| | Sought Information From Any Source | | Sought Information From the Internet | | Sought Information From Books, Magazines or Newspapers | |
| | 2007 | 2010 | 2007 | 2010 | 2007 | 2010 |
| All Adults | 55.5% | 50.0%# | 31.1% | 32.6%# | 32.9% | 18.2%# |
| Chronic Conditions | | | | | | |
| None (R) | 49.8 | 46.8# | 27.6 | 30.6# | 28.0 | 15.7# |
| One | 59.6* | 50.6*# | 33.7* | 34.7* | 36.5* | 18.5*# |
| Two or More | 66.2* | 57.7*# | 38.5* | 36.2* | 41.1* | 24.2*# |
| Sex | | | | | | |
| Female (R) | 60.2 | 54.4# | 34.6 | 36.4 | 38.0 | 21.5# |
| Male | 50.3* | 44.9*# | 27.1* | 28.3* | 27.0* | 14.4*# |
| Age Group | | | | | | |
| 18-34 (R) | 58.0 | 55.5 | 36.2 | 38.2 | 26.6 | 15.4# |
| 35-49 | 56.9 | 51.7*# | 36.3 | 35.2 | 33.5* | 18.6*# |
| 50-64 | 55.3 | 47.5*# | 29.3* | 29.2* | 37.2* | 20.5*# |
| 65 and Older | 49.5* | 41.9*# | 17.1* | 24.0*# | 35.3* | 18.3# |
| Education | | | | | | |
| No High School Diploma | 42.1* | 33.4*# | 10.3* | 11.0* | 23.1* | 12.1*# |
| High School Diploma | 48.5* | 41.9*# | 23.5* | 23.5* | 28.3* | 14.8*# |
| Some College | 59.6* | 55.4*# | 35.0* | 37.6* | 35.3* | 19.4*# |
| College Degree | 64.6* | 61.8* | 42.6* | 45.5* | 39.5* | 22.9*# |
| Graduate Education (R) | 72.3 | 67.2# | 50.2 | 52.1 | 45.8 | 27.2# |
| Family Income | | | | | | |
| Below 200% of Poverty | 54.3 | 47.0*# | 27.0* | 26.2* | 32.5 | 17.4# |
| 200-399% | 55.7 | 50.9# | 30.2* | 33.3*# | 31.8 | 19.4# |
| 400-599% | 56.6 | 49.3*# | 33.2 | 34.4 | 34.7 | 17.0# |
| 600% or More (R) | 56.4 | 54.2 | 35.2 | 37.5 | 33.6 | 18.8# |
| Race/Ethnicity | | | | | | |
| White (R) | 55.9 | 51.4# | 32.6 | 34.6# | 32.1 | 18.1# |
| African American | 55.8 | 47.1*# | 26.5* | 26.9* | 35.8 | 16.4* |
| Hispanic | 49.9* | 42.2*# | 25.8* | 26.5* | 31.3 | 18.3# |
| Other | 63.1* | 55.9 | 31.3 | 31.5 | 40.1* | 23.0*# |
| Insurance | | | | | | |
| Private (R) | 56.7 | 51.8# | 33.7 | 35.0 | 32.1 | 17.9# |
| Medicare | 53.6 | 45.8*# | 26.0* | 25.1* | 32.8 | 18.2# |
| Medicaid | 54.7 | 51.1 | 28.4* | 31.8 | 33.4 | 19.2# |
| Uninsured | 54.7 | 49.0# | 27.3* | 32.3# | 36.0 | 19.1# |

¹ Estimates are adjusted means derived from a multivariate model that controls for differences in personal characteristics, including ages, sex, race/ethnicity, income, chronic conditions, health status and health insurance type.

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

2010 value is significantly different from 2007 at p<.05.

Sources: HSC 2007 and 2010 Health Tracking Household Surveys

SURPRISING DECLINE IN CONSUMERS SEEKING HEALTH INFORMATION

SUPPLEMENTARY TABLES

| Supplementary Table 2: | Impact of Information Seeking, 2010 (Regression-Adjusted)¹ | |
|---------------------------|--|--|
| | Adults Who Sought Health Information | |
| | Affected Understanding about How to Treat Illness or Condition | Affected Overall Approach to Maintaining Health |
| All Adults | 60.1% | 55.7% |
| Chronic Conditions | | |
| None (R) | 57.4 | 53.7 |
| One | 60.2 | 54.4 |
| Two or More | 66.8* | 62.2* |
| Sex | | |
| Female (R) | 62.7 | 57.3 |
| Male | 56.5* | 53.5* |
| Age Group | | |
| 18-34 (R) | 56.6 | 52.1 |
| 35-49 | 59.8 | 54.2 |
| 50-64 | 64.1* | 59.4* |
| 65 and Older | 60.6 | 58.9 |
| Education | | |
| No High School Diploma | 47.4* | 44.7* |
| High School Diploma | 56.4* | 52.2* |
| Some College | 60.9* | 56.2 |
| College Degree | 65.0 | 61.3 |
| Graduate Education (R) | 67.2 | 60.2 |
| Family Income | | |
| Below 200% of Poverty | 56.0 | 53.9 |
| 200-399% | 62.5 | 57.7 |
| 400-599% | 61.0 | 56.9 |
| 600% or More (R) | 61.4 | 54.2 |
| Race/Ethnicity | | |
| White (R) | 61.8 | 55.0 |
| African American | 56.6 | 59.2 |
| Hispanic | 55.2* | 55.7 |
| Other | 56.0 | 56.9 |
| Insurance | | |
| Private (R) | 60.8 | 57.3 |
| Medicare | 57.1 | 51.3 |
| Medicaid | 62.0 | 52.0 |
| Uninsured | 59.9 | 56.7 |

¹ Estimates are adjusted means derived from a multivariate model that controls for differences in personal characteristics, including ages, sex, race/ethnicity, income, chronic conditions, health status and health insurance type.

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

Source: HSC 2010 Health Tracking Household Survey