



The Social Life of Health Information

Americans' pursuit of health takes place within a

widening network of both online and offline sources.

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Part 1. Summary of Findings

61% of American adults look online for health information.

In 2000, 46% of American adults had access to the internet, 5% of U.S. households had broadband connections, and 25% of American adults looked online for health information. Now, 74% of American adults go online, 57% of American households have broadband connections, and 61% of adults look online for health information. We use the term "e-patient" to describe this group.

Further, "always present" mobile access draws people into conversations about health as much as online tools enable research.

American adults continue to turn to traditional sources of health information, even as many of them deepen their engagement with the online world.

When asked, "Now thinking about all the sources you turn to when you need information or assistance in dealing with health or medical issues, please tell me if you use any of the following sources..."

- 86% of all adults ask a health professional, such as a doctor.
- 68% of all adults ask a friend or family member.
- 57% of all adults use the internet.
- 54% use books or other printed reference material.
- 33% contact their insurance provider.
- 5% use another source not mentioned in the list.

The social life of health information is robust.

Half of all online health inquiries (52%) are on behalf of someone other than the person typing in the search terms. And two-thirds of e-patients talk with someone else about what they find online, most often a friend or spouse. The survey question did not specify whether these conversations take place face to face, over the phone, or online, but it is clear that the pursuit of health information does not happen in a social vacuum.

A majority of e-patients access user-generated health information.

Health consumers are often looking for tailored information, searching for a "just-in-time someone-like-me." For example:

- 41% of e-patients have read someone else's commentary or experience about health or medical issues on an online news group, website, or blog.
- 24% of e-patients have consulted rankings or reviews online of doctors or other providers.
- 24% of e-patients have consulted rankings or reviews online of hospitals or other medical facilities.
- 19% of e-patients have signed up to receive updates about health or medical issues.
- 13% of e-patients have listened to a podcast about health or medical issues.

But few are actively writing or creating new health content:

- 6% of e-patients have tagged or categorized online content about health or medical issues.
- 6% of e-patients report that they have posted comments, queries, or information about health or medical matters in an online discussion, listserv, or other online group forum.
- 5% of e-patients say they have posted comments about health on a blog.
- 5% of e-patients have posted a review online of a doctor.
- 4% of e-patients have posted a review online of a hospital.
- 4% have shared photos, videos or audio files online about health or medical issues.

In sum, 37% of adults, or 60% of e-patients, have done at least one of the above activities.

Social networking sites are used only sparingly for health queries and updates.

Despite the increasing popularity of social network sites and status update services, few people are using them to gather and share health information.

- 39% of e-patients use a social networking site like MySpace and Facebook and, of those, only a small portion have followed their friends' personal health experiences or updates, posted their own health-related comments, gotten any health information, or joined a health-related group.
- 12% of e-patients use Twitter or another service to share updates about themselves or to see updates about others, and of those, few have posted comments, queries, or information about health or medical matters.

Online health inquiries have an impact on decisions or actions and there are clearly more positive experiences than negative ones.

Among the six in ten e-patients who say their most recent search had an impact, mostly minor, on their own health or the way they care for someone else:

- 60% say the information found online affected a decision about how to treat an illness or condition.
- 56% say it changed their overall approach to maintaining their health or the health of someone they help take care of.
- 53% say it lead them to ask a doctor new questions, or to get a second opinion from another doctor.
- 49% say it changed the way they think about diet, exercise, or stress management.
- 38% say it affected a decision about whether to see a doctor.
- 38% say it changed the way they cope with a chronic condition or manage pain.

Fully 42% of all adults, or 60% of e-patients, say they or someone they know has been helped by following medical advice or health information found on the internet. This represents a significant increase since 2006 when 25% of all adults, or 31% of e-patients, said that.¹

Just 3% of all adults, or 3% of e-patients, say they or someone they know has been harmed by following medical advice or health information found on the internet, a finding that has remained stable since 2006.

Internet users report a surge of interest in information about exercise and fitness.

The percentage of American adults getting exercise and fitness information online has jumped from 21% in 2002 to 38% now – an 88% growth, a more rapid increase than any other health topic covered in the survey.

In addition to fitness, six other health topics have been included in our surveys since 2002, all of which have gained audience share, including information about:

- A specific disease or medical problem (49% of adults, up from 36%)
- A medical treatment or procedure (41% of adults, up from 27%)
- Prescription or over-the-counter drugs (33% of adults, up from 19%)
- Alternative treatments or medicines (26% of adults, up from 16%)
- Depression, anxiety, stress or mental health issues (21% of adults, up from 12%)
- Experimental treatments or medicines (15% of adults, up from 10%)

Five specific health topics were added to the list, including information about:

- Doctors or other health professionals (35% of adults)
- Hospitals or other medical facilities (28% of adults)

¹ Susannah Fox, "Online Health Search 2006" (Pew Internet Project: October 29, 2006). See: <u>http://www.pewinternet.org/Reports/2006/Online-Health-Search-2006.aspx</u>

- Health insurance, including private insurance, Medicare or Medicaid (27% of adults)
- How to lose weight or how to control your weight (24% of adults)
- How to stay healthy on a trip overseas (9% of adults)

Change is coming, whether through the spread of wireless devices or generational shifts.

Wireless connections are associated with deeper engagement in social media and an accelerated pace of information exchange. Indeed, those with mobile access to the internet are more likely than those who have tethered access to contribute their comments and reviews to the online conversation about health and health care. And mobile access is on the rise.

Second, adults between the ages of 18 to 49 are more likely than older adults to participate in social technologies related to health. As younger adults face more health care questions and challenges, they may turn to the tools they have sharpened in other contexts of their lives to gather and share health advice.

But in the end, experts remain vital to the health-search and decision-making process. Americans' longstanding practices of asking a health professional, a trusted friend, or a wise family member persist as patients pursue good health. These are practices which, in the words of John Seely Brown and Paul Duguid "will not budge" and therefore require designers of any new health care application "to look not ahead, but to look around" in order to see the way forward.²

² John Seely Brown and Paul Duguid, *The Social Life of Information*. (Harvard Business School Press: 2000).

Part 2. A Shifting Landscape

Americans are tapping into a widening network of both online and offline sources.

The Pew Research Center's Internet & American Life Project conducts ongoing surveys about the social impact of the internet, including its effect on health and health care. Starting in 2000 with the findings of "The Online Health Care Revolution" and continuing over the last 10 years, we measured the increasing use of health-related internet resources in the United States.³

The landscape has changed significantly since the spring of 2000, when 46% of American adults had access to the internet, 5% of U.S. households had broadband connections, and 25% of American adults looked online for health information.

Now 74% of American adults go online, 57% of American households are connected via broadband and 61% of adults look online for health information. Further, many American adults now have an "always present" connection via wireless devices. Mobile access is changing the behavior of internet users and, in particular, changing the behavior of health care consumers. The mobile internet draws people into conversations about health as much as online tools enable research.

The Pew Internet Project has mapped this landscape by asking American adults about their assets, actions, and attitudes related to internet and communications technology.⁴ It turns out that 39% of adults are Motivated by Mobility. If they have a desktop computer, they use wireless technology not as a replacement, but as a supplement to that "wireline" connection. Mobile access creates a continual information exchange that feeds on itself and reinforces collaborative behavior. By contrast, 61% of adults are the Stationary Media Majority. Many are on the "have" side of the so-called digital divide. They may have broadband and they may have a cell phone, but they are rooted in old media. They are just not that into the hive mind enabled by always-connected technologies such as Facebook, YouTube, Twitter, and the like.

The Project's December 2008 survey, conducted in partnership with the California HealthCare Foundation, brings together two other streams of our research: Americans' use of social media and their pursuit of health information.

The survey confirms the well-established finding that 8 in 10 internet users, or 61% of U.S. adults, have looked online for health information.⁵

But more importantly, this survey finds that Americans' pursuit of health takes place within a widening network of both online and offline sources. The internet supplements,

³ See Pew Internet Project: Health <u>http://www.pewinternet.org/topics/Health.aspx</u>

⁴ John Horrigan, "The Mobile Difference." (Pew Internet & American Life Project: March 25, 2009) See: http://www.pewinternet.org/Reports/2009/5-The-Mobile-Difference--Typology.aspx

⁵ Pew Internet Project surveys conducted in 2002, 2004, 2006, 2007, and 2008 consistently find that between 75-83% of internet users look online for health information.

but does not replace, traditional sources of health information. The vast majority of people with a health question or concern say they consult a health professional. The second most popular choice is to ask friends and family. The internet and books, or other printed reference materials, are essentially tied at third place among U.S. adults who need information or assistance dealing with health or medical issues.

Looking closer at how people use the internet for health care, it is clear that some are going online to connect, in fact, with what we think of as traditional sources: health professionals, friends, and families. People tap into their social networks, both online and offline. Whereas someone may have in the past called a health professional, their Mom, or a good friend, they now are also reading blogs, listening to podcasts, updating their social network profile, and posting comments. And many people, once they find health information online, talk with someone about it offline.

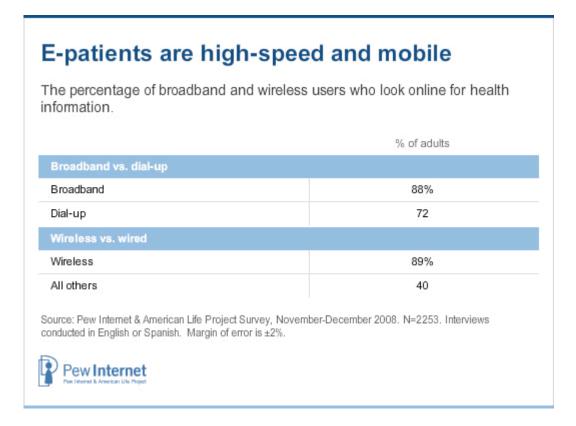
This Pew Internet/California HealthCare survey finds that technology is not an end, but a means to accelerate the pace of discovery, widen social networks, and sharpen the questions someone might ask when they do get to talk to a health professional. Technology can help to enable the human connection in health care and the internet is turning up the information network's volume.

61% of adults in the U.S. gather health information online.

Three-quarters of American adults, age 18 and older, have access to the internet, a percentage which held steady throughout 2008.

83% of internet users, or 61% of U.S. adults, have looked online for information about any of the health topics we ask about, ranging from information about a specific disease, a certain treatment, alternative medicine, health insurance, doctors, hospitals, and ways to stay healthy.

Internet users with home broadband or wireless access are more likely than dial-up and tethered internet users to look online for health information.



Demographics of e-patients

The percentage of adults in each demographic group who look online for information about health or medical issues

	% of adults	
All adults	61%	
Sex		
Men	57%	
Women	64	
Race/Ethnicity		
White (non-Hispanic)	65%	
African American (non-Hispanic) (n=225)	51	
Hispanic (n=199)	44	
Age		
18-29	72%	
30-49	71	
50-64	59	
65+	27	
Education		
Less than high school	25%	
High school diploma	50	
Some college	74	
College graduate	85	
Household income		
Less than \$30,000	44%	
\$30,000-\$49,999	66	
\$50,000-\$74,999	79	
\$75,000 or more	82	

Source: Pew Internet & American Life Project Survey, November-December 2008. N=2253. Interviews conducted in English or Spanish. Margin of error is ±2%.



Internet User Population

Percentage of adults within each group who use the internet

% of U.S. adults	
All American adults	74%
Sex	
Men	73%
Women	75
Race/Ethnicity	
White (non-Hispanic)	77%
African American (non-Hispanic) (n=225)	64
Hispanics (n=199)	58
Age	
18-29	87%
30-49	82
50-64	72
65+	41
Education	
Less than high school	35%
High school diploma	67
Some college	85
College graduate	95
Annual Household Income	
Less than \$30,000	57%
\$30,000-\$49,999	77
\$50,000-\$74,999	90
\$75,000 or more	94

Source: Pew Internet & American Life Project Survey, November-December 2008. N=2253. Interviews conducted in English or Spanish. Margin of error is $\pm 2\%$.

Pew Internet

% of in	ternet users who have looked online for information about
66%	a specific disease or medical problem
55%	certain medical treatment or procedure
52%	exercise or fitness
47%	doctors or other health professionals
45%	prescription or over-the-counter drugs
38%	hospitals or other medical facilities
37%	health insurance, including private insurance, Medicare or Medicaid
35%	alternative treatments or medicines
33%	how to lose weight or how to control your weight
28%	depression, anxiety, stress or mental health issues
26%	any other health issue
20%	experimental treatments or medicines
12%	how to stay healthy on a trip overseas
	internet users, or 61% of adults, have looked online for information about at least these topics

The internet does not replace health professionals.

American adults continue to turn to traditional sources of health information, even as many of them deepen their engagement with the online world. When asked, "Now thinking about all the sources you turn to when you need information or assistance in dealing with health or medical issues, please tell me if you use any of the following sources..."

- 86% of all adults ask a health professional, such as a doctor.
- 68% of all adults ask a friend or family member.
- 57% of all adults use the internet.
- 54% use books or other printed reference material.
- 33% contact their insurance provider.
- 5% use another source not mentioned in the list.

Significant differences emerge between age groups, a finding that holds steady when controlling the other variables.

For example, adults between the ages of 18 and 29 are significantly less likely than older adults to consult a health professional (79%, compared with 88% of 30-49s, 89% of 50-64s, and 89% of 65+). Younger adults are more likely than older adults to consult a friend or family member. Seventy-eight percent of adults ages 18-29 and 72% of 30-49 year-olds consult a friend or family member, compared with 58% of 50-64 year-olds and 59% of adults age 65 and older.

The Center for Studying Health System Change recorded significant differences in health-information seeking behavior among adults with various levels of education.⁶ This survey echoes those findings: 94% of college graduates consult a health professional, for example, compared with 83% of high school graduates. Seventy-five percent of college graduates consult friends and family members, compared with 66% of high school graduates.

There are no significant differences between adults who have dial-up internet access vs. those with home broadband; adults who report good health vs. those in poor health; and adults living in urban, suburban, or rural communities. All of these groups turn in equal numbers to health professionals, friends, family members, the internet, and other sources of health information.

In conclusion, access to the internet does not seem to diminish Americans' interest in talking with health professionals, friends, or family members. But the kinds of health information sought and found online are different from what people can glean from most traditional sources.

Part 3. Social Media and Health

Many seek a "just-in-time someone-like-me" but few post their own stories.

E-patients are using the internet to compare their options, just as they do with other major decisions,⁷ and to find the "just-in-time someone-like-me" who can aid their decision-making.

Fifty-nine percent of e-patients have done at least one of the following activities:

- 41% of e-patients have read someone else's commentary or experience about health or medical issues on an online news group, website, or blog. About half of e-patients between the ages of 18-49 have read someone else's commentary online, compared with about one-third of e-patients ages 50 and older.
- 24% of e-patients have consulted rankings or reviews online of doctors or other providers.

⁷ Lee Rainie, Leigh Estabrook, and Evans Witt, "Information Searches That Solve Problems." (Pew Internet Project: December 30, 2007) See: <u>http://www.pewinternet.org/Reports/2007/Information-Searches-That-Solve-Problems.aspx</u>

⁶ Ha T. Tu and Genna Cohen, "Striking Jump in Consumers Seeking Health Care Information." (Center for Studying Health System Change, August 2008). See: <u>http://www.hschange.org/CONTENT/1006/</u>

- 24% of e-patients have consulted rankings or reviews online of hospitals or other medical facilities.
- 19% of e-patients have signed up to receive updates about health or medical issues. Customized health bulletins are especially popular among e-patients age 50-64: 23% have signed up to receive such updates, compared with 14% of e-patients ages 18-29, for example.
- 13% of e-patients have listened to a podcast about health or medical issues.

E-patients with a college degree are more likely than those with a high school diploma to have done the top three activities (47% have read someone else's commentary, for example, vs. 33% of e-patients with a high school diploma). E-patients with home broadband are more likely than those with dial-up access to have done all of these activities (26% of e-patients with home broadband have consulted online reviews of health professionals, for example, vs. 18% of those with dial-up).

Other recent studies found similar trends. For example, a 2009 Deloitte Center for Health Solutions survey found that a growing number of adults are "comparing doctors, hospitals, medications, devices, health plans and self remedies."⁸ Edelman's Health Engagement Barometer points out that "no single source of information stands out or stands alone" in the networked world of many health consumers.⁹ And yet the Center for Studying Health System Change finds that just 41% of patients have the knowledge and confidence required to manage their health in this new world.¹⁰

Indeed, the activation gap may extend online as there is not universal access to communication technologies. Someone's "just-in-time someone-like-me" may not be online or they may not be speaking up in public forums.

Twenty percent of e-patients have done at least one of the following activities:

- 6% of e-patients have tagged or categorized online content about health or medical issues. E-patients ages 30-64 are more likely than older and younger e-patients to have tagged health content.
- 6% of e-patients have posted comments, queries, or information about health or medical matters in an online discussion, listserv, or other online group forum.
- 5% of e-patients have posted comments about health on a blog.
- 5% of e-patients have posted a review online of a doctor.
- 4% of e-patients have posted a review online of a hospital. E-patients ages 18-29 are more likely than older e-patients to have posted a hospital review.
- 4% have shared photos, videos or audio files online about health or medical issues.

 ⁸ "2009 Survey of Health Care Consumers," Deloitte Center for Health Solutions. See: <u>http://www.deloitte.com/dtt/article/0,1002,sid%253D127087%2526cid%253D248733,00.html</u>
⁹ "Health Engagement Barometer," Edelman (2008). See:

http://engageinhealth.com/docs/Edel_HealthBarometer_R13c.pdf

¹⁰ "How Engaged Are Consumers in Their Health and Health Care, and Why Does It Matter," Center for Studying Health System Change (October 2008). See: <u>http://www.hschange.com/CONTENT/1019/</u>

60% of e-patients, or one-third of adults, access social media related to health.

In sum, 60% of e-patients, or 37% of U.S. adults, have done at least one of these eleven social media activities related to health and health care. As health economist Jane Sarasohn-Kahn writes, health-related social technologies capture "the exchange of health information and personal stories in a way that transcends both medical textbooks and chatting with a friend on the phone – yet offers some of the benefits of both."¹¹

Age is a significant predictor for accessing user-generated content related to health. About two-thirds of e-patients ages 18-49 have done at least one of the activities listed, compared with one-half of e-patients age 50 and older. Two-thirds of e-patients with broadband at home or wireless access have done at least one health social media activity on the list, compared with half of e-patients with dial-up at home or tethered access.

There are no significant differences among e-patients of various ages or education levels and there is no significant difference between e-patients with home broadband and those with dial-up access.

However, e-patients with mobile access to the internet are more likely than those who have tethered access to contribute their comments and reviews to the online conversation. Again, these data points echo "The Mobile Difference" report, which found that wireless access is associated with deeper engagement and participation in online communications.¹²

There are signs that the social media gap could close for health consumers. First, mobile technology is associated with deeper engagement in social media and an accelerated pace of information exchange. Second, adults between the ages of 18 to 49 are more likely than older adults to participate in social technologies related to health.

¹¹ Jane Sarasohn-Kahn, "The Wisdom of Patients: Health Care Meets Online Social Media" (California HealthCare Foundation, April 22, 2008). See: http://www.chcf.org/topics/chronicdisease/index.cfm?itemID=133631

¹² Horrigan, 2009

E-patients are more likely than other internet users to engage in social media in general.

It turns out that e-patients' enthusiasm for social media is not limited to activities related to health. Internet users who have looked online for health information are more likely than non-health seekers to have created or worked on their own blog, read someone else's blog, used a social network site, used Twitter or another status update service, and to have consulted Wikipedia. Even when controlling for age, education, and other variables, being an e-patient emerges as a significant predictor for other social media engagement.

-patients are more likely than other in nedia in general.	ternet users to er	ngage in social
	% e-patients	% internet users who do not look online for health information
Consult Wikipedia	53%	17%
Use a social networking site like MySpace or Facebook	39	17
Read someone else's blog	37	10
Create or work on their own blog	13	4
Use Twitter or other status update service	12	4

Mobile access is another independent factor when it comes to predicting social media use. Internet users with wireless access are more likely than those who have only tethered access to engage in a full range of social media activities.

Mobile vs. tethered internet users

Wireless internet users are more likely than those with only tethered access to engage in social media activities.

Consult Wikipedia	56%	34%
Use a social networking site like MySpace or Facebook	45	20
Read someone else's blog	40	22
Create or work on their own blog	15	6
Use Twitter or other status update service	14	6
Pew Internet		

Part 4. The Social Life of Health Information

As usual, there are more readers and listeners than writers and creators.

Health care, including online health research, is a social activity. Since 2002, Pew Internet Project surveys consistently find that about half of online health inquiries are on behalf of someone else, be it a family member, friend, or someone else. In addition, twothirds of internet users who have gone online for health information talk with someone else about what they find online, most often a friend or spouse. A handful talk with a medical professional about what they find online. The survey question did not specify whether these conversations take place face to face, over the phone, or online.

While offline conversation about health information may be robust, it seems that the online conversation about health may be lopsided. There are many more readers and listeners than there are writers and creators of online content.

Again, 6% of e-patients, or 5% of all adults, report that they have posted comments, queries, or information about health or medical matters in an online discussion, listserv, or other online group forum. Five percent of e-patients, or 4% of all adults, say they have posted comments about health on a blog. And 8% of e-patients, or 7% of all adults, say they have participated in an online discussion, a listserv, or other online group forum that helps people with personal issues or health problems.

These findings echo the well-established observation that there are always more passive consumers of information than active contributors. Indeed, Forrester Research has grouped internet users into six social technology types: creators (keep a blog), critics (post comments, reviews), collectors (tag content), joiners (social network sites),

spectators (read blogs, listen to podcasts), and inactives (none of these activities).¹³ As Charlene Li writes, "not everyone is cut out from the start to be a Creator; nor is everyone inclined to jump with both feet into social networking," and this survey finds that health-related social media engagement follows the same pattern.

Age is the only significant factor when looking at traditional demographic groups and active use of the internet for health communication. Women, men, e-patients of various levels of education, whites, African Americans, Latinos – all are equally likely, once they are online, to post their own health experiences or to access the resources created by other people.

E-patients with wireless access are more likely than those who do not have mobile access to have pursued nearly all of these avenues of health communication, which underlines the Pew Internet Project's finding that on-the-go devices draw adults further into online engagement.¹⁴

But while there are currently only pockets of people participating in the online conversation, there is evidence that "when patients managing the same chronic condition share observations with each other, their collective wisdom can yield clinical insights well beyond the understanding of any single patient or physician."¹⁵ Indeed, allowing patients "to transport the full value of these communities back offline" may hold promise for the integration of new and traditional health care services.¹⁶

Social networking sites are used only sparingly for health queries and updates.

Thirty-nine percent of e-patients use a social networking site like MySpace and Facebook (about the same percentage of all internet users age 18 and older).¹⁷ Of those:

- 22% have followed their friends' personal health experiences or updates on the site.
- 15% have posted comments, queries, or information about health or medical matters.
- 12% have gotten any health information on the sites.
- 6% have started or joined a health-related group on a social networking site.

Twelve percent of e-patients use Twitter or another service to share updates about themselves or to see updates about others (again, about the same percentage of internet

 ¹³ Charlene Li, Josh Bernoff, Remy Fiorentino, and Sarah Glass, "Social Technographics: Mapping Participation in Activities Forms the Foundation of a Social Strategy" (Forrester Research: April 19, 2007).
See: <u>http://blogs.forrester.com/groundswell/2007/04/forresters_new_.html</u>
¹⁴ Horrigan, 2009

¹⁵ Sarasohn-Kahn, 2008

¹⁶ Jen McCabe Gorman and Maarten den Braber, "Semantic Web Sparks Evolution of Health 2.0" (September 2008). See: <u>http://www.scribd.com/doc/5535162/Nexthealth</u>

¹⁷ Amanda Lenhart, "Adults and Social Network Websites." (Pew Internet Project: January 14, 2009). See: <u>http://www.pewinternet.org/Reports/2009/Adults-and-Social-Network-Websites.aspx</u>

users age 18 and older use status update services).¹⁸ Of e-patient Twitterers, 12% have posted comments, queries, or information about health or medical matters.

Age is a good predictor for social networking use. Two-thirds of internet users between the ages of 18 to 29 use social networking sites, as do 35% of internet users ages 30 to 49, 11% of internet users ages 50 to 64, and 7% of internet users age 65 and older. In addition, 19% of internet users between the ages of 18 to 29 use Twitter or another service to share or see updates, compared with 11% of internet users ages 30 to 49, 4% of internet users age 50 to 64, and 2% of internet users age 65 and older. However, once they begin updating their status or maintaining a social network profile, internet users of all ages are equally likely to have used these sites for health queries, comments, and updates.

There are no significant differences among other demographic groups when it comes to use of social networking sites for health. Women, men, e-patients of various levels of education, whites, African Americans, Latinos – all are equally likely, once they are using social networking services, to use them for health queries and updates.

As more adults join social networking sites, there may be a health benefit simply from the friendship and fellowship found online. Research supports the notion that "a stable and supportive social network improves health outcomes for people with a wide range of conditions from heart failure to post-partum depression."¹⁹ Twenty-somethings with few health concerns now may find that their interests shift as they age. Older users, gaining confidence, may begin to use the sites for a wider range of pursuits, including social support during a health crisis. There is evidence that online peer support is attractive to older adults and those living with chronic conditions, particularly if it is delivered on technology that is familiar and convenient.²⁰

Part 5. The Impact of Online Health Resources

About one in ten online health inquiries have a major impact on someone's health care or the way they care for someone else.

When asked, "Did the health information you found in the last time online have a major impact on your own health care or the way you care for someone else, a minor impact, or no impact at all?"

- 13% of e-patients say their most recent inquiry had a major impact.
- 44% of e-patients say it had a minor impact.

http://www.ncbi.nlm.nih.gov/books/bv.fcgi?rid=hstat1b.chapter.144847

 ¹⁸ Amanda Lenhart and Susannah Fox, "Twitter and status updating." (Pew Internet Project: February 12, 2009). See: <u>http://www.pewinternet.org/Reports/2009/Twitter-and-status-updating.aspx</u>
¹⁹ Sarasohn-Kahn, 2008

²⁰ Jimison H, Gorman P, Woods S, Nygren P, Walker M, Norris S, Hersh W. "Barriers and Drivers of Health Information Technology Use for the Elderly, Chronically III, and Underserved." Evidence Report/Technology Assessment No. 175 (Prepared by the Oregon Evidence-based Practice Center under Contract No. 290-02-0024). AHRQ Publication No. 09-E004. Rockville, MD: Agency for Healthcare Research and Quality. November 2008. See:

• 41% of e-patients say their most recent inquiry had no impact.

There are no differences between men and women or among age groups when it comes to the impact of online health inquiries. African American e-patients are more likely than white or Latino e-patients to report that their last online health session had a major impact (26%, compared with 11% and 16%). Seventeen percent of e-patients who report their health status as excellent or good say their most recent online health inquiry had a major impact, compared with 6% of those who report being in fair or poor health.

For the 57% of e-patients who say their most recent search had an impact, either major or minor:

- 60% say the information found online affected a decision about how to treat an illness or condition.
- 56% say it changed their overall approach to maintaining their health or the health of someone they help take care of.
- 53% say it lead them to ask a doctor new questions, or to get a second opinion from another doctor.
- 49% say it changed the way they think about diet, exercise, or stress management.
- 38% say it affected a decision about whether to see a doctor.
- 38% say it changed the way they cope with a chronic condition or manage pain.

The Center for Studying Health System Change's large survey sample of 18,000 respondents afforded an opportunity to look closely at the impact of health information searches. Their data showed that African American and Latino information seekers were more likely than whites to say that "the information had a beneficial impact on their knowledge about treating an illness or condition."²¹ Further study is needed to determine the reasons, but one factor cited by the study's authors is that African American and Latino consumers are less likely than whites to have a usual doctor or other care provider and therefore "may find information obtained from other sources has more impact on their health knowledge or behaviors." The Pew Hispanic Center and Robert Wood Johnson Foundation have also recorded lower levels of access to usual health care providers among Latinos in the U.S.²²

²¹ Tu and Cohen, 2008

²² Gretchen Livingston, Susan Minushkin, and D'Vera Cohn, "Hispanics and Health Care in the United States: Access, Information and Knowledge." (Pew Hispanic Center and Robert Wood Johnson Foundation: August 13, 2008) See: <u>http://pewhispanic.org/reports/report.php?ReportID=91</u>

42% of adults say they or someone they know has been helped by online health advice.

In this survey, 42% of all adults, or 60% of e-patients, say they or someone they know has been helped by following medical advice or health information found on the internet. This represents a significant increase since 2006 when 25% of all adults, or 31% of e-patients, reported being aware of helpful outcomes.

Just 3% of all adults, or 3% of e-patients, say they or someone they know has been harmed by following medical advice or health information found on the internet. This is the same percentage who reported being aware of harmful outcomes in 2006.

mpact of health narmed	inquiries: help	ed or
he percentages of adults ar armed by health information		been helped or
	% of adults	% of e-patients
42% of all adults, and 60% of e-p by following medical advice or h		
Major help	10%	14%
Moderate help	20	30
Minor help	11	16
No help	50	33
Don't know/no answer	9	7
3% of all adults, and 3% of e-pat by following medical advice or h		
Serious harm	1%	1%
Moderate harm	1	1
Minor harm	1	1
No harm	94	95
Don't know/no answer	3	2

Source: Pew Internet & American Life Project Survey, November-December 2008. Interviews conducted in English or Spanish. N=2253 and margin of error is ±2 for all adults, and n= 1,365 and margin of error is +/-3% for e-patients.

Pew Internet Poor Inference Life Project

Looking online for health information is a mainstream activity, but few people are engaged daily or even weekly with online health resources.

83% of internet users, or 61% of adults, look online for health information, however:

- 81% of internet users say they go online and do something related to health less often than once a week.
- 9% of internet users say they do so once a week.
- 6% of internet users say they do so every few days.
- 4% of internet users say they go online and do something related to health once a day or more.

This should not be surprising since 80% of American adults describe their health as excellent or good and therefore have little reason to frequently access health information.

Part 6. Trends to Watch

Mobile access and generational shifts will each have an effect on social media and health care.

In conclusion, most adults' relationship to health and health care remains firmly rooted in the offline world, even as many are exploring the information and communications options available to them. When facing a health question, most people turn to a health professional, friend, or family member; the internet plays a supplemental role. E-patients are likely to dip in to social media activities related to health, but posting comments, reviews, or other health content are not yet mainstream online activities.

There are signs that change is coming:

First, mobile access is on the rise. Wireless connections are associated with deeper engagement in social media and an accelerated pace of information exchange. Indeed, those with mobile access to the internet are more likely than those who have tethered access to contribute their comments and reviews to the online conversation about health and health care.

Second, adults between the ages of 18 to 49 are more likely than older adults to participate in social technologies related to health. As younger adults face more health care questions and challenges, they may turn to the tools they have sharpened in other contexts of their lives to gather and share health advice.

But in the end, experts remain vital to the health-search and decision-making process. Americans' longstanding practices of asking a health professional, a trusted friend, or a wise family member persist as patients pursue good health. These are practices which, in the words of John Seely Brown and Paul Duguid "will not budge" and therefore require designers of any new health care application "to look not ahead, but to look around" in order to see the way forward.²³

Topic by topic: Health information trends since 2002

The Pew Internet Project estimates that 61% of American adults go online for health information. This estimate is based on an evolving series of questions first developed by the Pew Internet Project in 2002^{24} and is in line with other recent reports.²⁵

Seven health topics have been included in our surveys since 2002, all of which have gained audience share as the percentage of adults who have access to the internet has grown from 57% in 2002 to 74% now.

- 49% of American adults, or 66% of internet users, now report that they have looked online for information about a specific disease or medical problem, compared with 36% of adults, or 63% of internet users, in 2002.
- 41% of American adults, or 55% of internet users, now report that they have looked online for information about a certain medical treatment or procedure, compared with 27% of adults, or 47% of internet users, in 2002.
- 38% of American adults, or 52% of internet users, now report that they have looked online for information about exercise or fitness, compared with 21% of adults, or 36% of internet users in 2002.
- 33% of American adults, or 45% of internet users, now report that they have looked online for information about prescription or over-the-counter drugs, compared with 19% of adults, or 34% of internet users, in 2002.
- 26% of American adults, or 35% of internet users, now report that they have looked online for information about alternative treatments or medicines, compared with 16% of adults, or 28% of internet users, in 2002.
- 21% of American adults, or 28% of internet users, now report that they have looked online for information about depression, anxiety, stress or mental health issues, compared with 12% of adults, or 21% of internet users, in 2002.
- 15% of American adults, or 20% of internet users, now report that they have looked online for information about experimental treatments or medicines, compared with 10% of adults, or18% of internet users, in 2002.

²³ John Seely Brown and Paul Duguid, *The Social Life of Information*. (Harvard Business School Press: 2000).

²⁴ Susannah Fox and Deborah Fallows, "Internet Health Resources." (Pew Internet Project: July 16, 2003). See: <u>http://www.pewinternet.org/Reports/2003/Internet-Health-Resources.aspx</u>

²⁵ Susannah Fox, "The Engaged E-patient Population." (Pew Internet Project, August 26, 2008) See: <u>http://www.pewinternet.org/Reports/2008/The-Engaged-Epatient-Population.aspx</u>

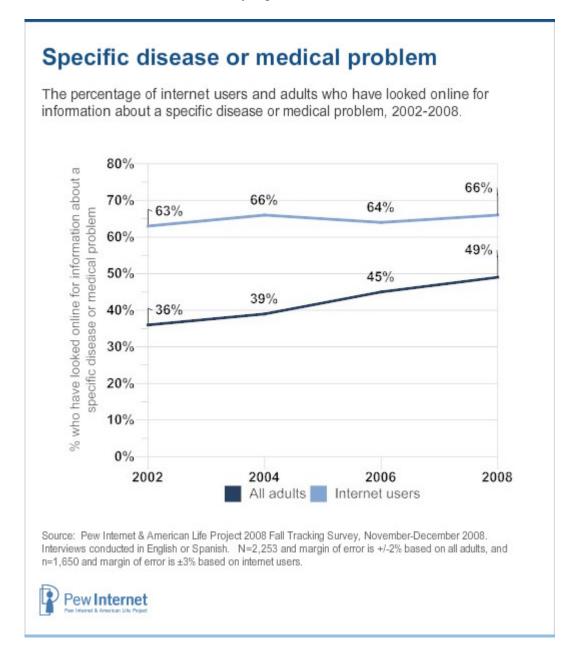
Six topics are new or were modified for this survey, including:

- 35% of American adults, or 47% of internet users, report that they have looked online for information about doctors or other health professionals.
- 28% of American adults, or 38% of internet users, report that they have looked online for information about hospitals or other medical facilities.
- 27% of American adults, or 37% of internet users, report that they have looked online for information related to health insurance, including private insurance, Medicare or Medicaid.
- 24% of American adults, or 33% of internet users, report that they have looked online for information about how to lose weight or how to control their weight.
- 19% of American adults, or 26% of internet users, report that they have looked online for information about any other health issue, not included in our list.
- 9% of American adults, or 12% of internet users, report that they have looked online for information about how to stay healthy on a trip overseas (such as immunizations and shots).

Part 7. 66% of internet users look online for information about a specific disease or medical problem.

Changes over time

The percentage of internet users who look for information about a specific disease or medical problem has remained the same over the past six years. In 2002, 63% of internet users looked online for information about a specific medical problem, and, in 2008, 66% did so. This increase is not statistically significant.



Demographics

Certain demographic groups are more likely than others to look online for information about a specific disease or medical problem. These differences have also changed very little over the past six years. Among adult internet users:

- Whites (68%) are more likely than African Americans (60%) or Hispanics (55%) to research online about a medical problem.
- Internet users age 30-49 (71%) and those age 50-64 (67%) are significantly more likely than the young internet users (61%) and wired seniors (53%) to turn to the internet for information about specific medical problems.
- Those making \$50,000 or more a year are much more likely than those making less than \$30,000 a year to look online for disease-related information.
- Similarly, internet users with some college education (70%) and college graduates (76%) are significantly more likely than high school graduates (55%) and internet users with less than a high school education (49%) to look online for information about a specific disease or medical problem. Internet users with a college degree were the only demographic group to become significantly more likely than they were six years ago to search for disease-related information online.

Specific disease or medical problem

Percentage of internet users within each group who have looked online for information about a specific disease or medical problem

	2002	2008	% point difference (only significant changes are noted)
Total	63%	66%	())
Sex			
Men	54%	59%	
Women	72^	72	
Race/Ethnicity			
White (non-Hispanic)	66%^	68%^	
African American (non-Hispanic)	55	60*	
Hispanics	55	55*	177.0
Age			
18-29	55%	61%	
30-49	66^	71^	
50-64	69^	67^	
65+	58	53	
Education			
Less than high school	52%	49%*	
High school diploma	57	55	
Some college	66	70^	
College graduate	68	76^	8
Annual Household Income			
Less than \$30,000	56%	59%	
\$30,000-\$49,999	69^	64	
\$50,000-\$74,999	66^	68^	
\$75,000 or more	67^	73^	

Source: Pew Internet & American Life Project 2008 Fall Tracking Survey, November-December 2008. Interviews conducted in English or Spanish. Margin of error is ±3% based on internet users.

^These groups are significantly more likely to search for information about a specific disease or medical problem.

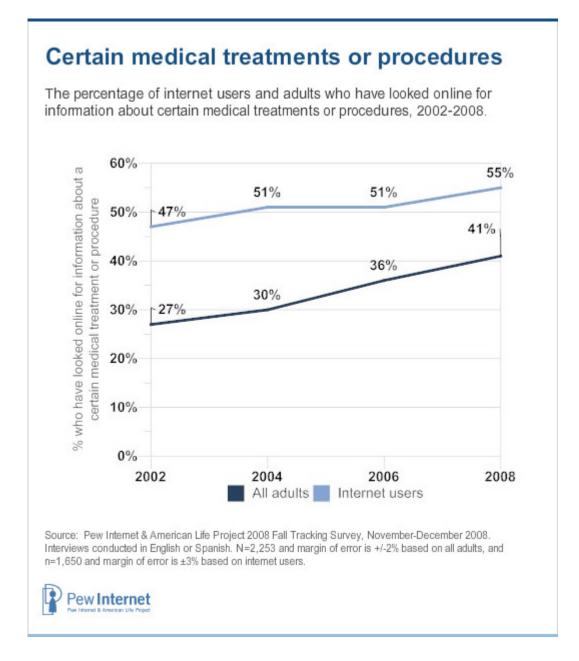
*Note: Due to the relatively small base size of African American (n=140), Hispanic (n=120), and lesseducated internet users (n=76), please interpret these results with some caution.



Part 8. 55% of internet users look online for information about certain medical treatments or procedures.

Changes over time

Over the past six years, the percentage of online Americans who look for information about medical treatments or procedures has increased significantly. Currently, 55% of internet users go online to find information on medical treatments and procedure, up from 47% in 2002.



Demographics

The percentage of internet users who look online for information about a specific medical treatment or procedure is very demographically divided.

Women are significantly more likely than men to look for medical treatment or procedure information. Three out of five online women (60%) look online for this information, while only about half (49%) of online men do so.

Internet users age 65 and older are much *less* likely than younger age groups to search the internet for information about a medical procedure. Forty-two percent of wired seniors look for specific medical treatment information online, while 54% of 50-64 year olds, 60% of 30-49 year olds, and 52% of 18-29 year olds look for this information.

Certain medical treatment or procedure

Percentage of internet users within each group who have looked online for information about a certain medical treatment or procedure

	2002	2008	% point difference (only significant changes are noted)
Total	46%	55%	9
Sex			
Men	40%	49%	9
Women	54^	60^	6
Race/Ethnicity			
White (non-Hispanic)	50%	57%	7
African American (non-Hispanic)	44	44*	
Hispanics	33	48*	15
Age			
18-29	40%	52%^	12
30-49	49^	60^	11
50-64	53^	54^	
65+	45	42	
Education			
Less than high school	39%	43%*	
High school diploma	41	44	
Some college	49	60^	11
College graduate	52	63^	11
Annual Household Income			
Less than \$30,000	40%	46%	
\$30,000-\$49,999	50^	50	
\$50,000-\$74,999	51^	60^	
\$75,000 or more	49	65^	16

Source: Pew Internet & American Life Project 2008 Fall Tracking Survey, November-December 2008. Interviews conducted in English or Spanish. Margin of error is ±3% based on internet users. ^These demographics are significantly more likely to search for information about a certain medical treatment or procedure.

*Note: Due to the relatively small base size of African American (n=140), Hispanic (n=120), and lesseducated internet users (n=76), please interpret these results with some caution.



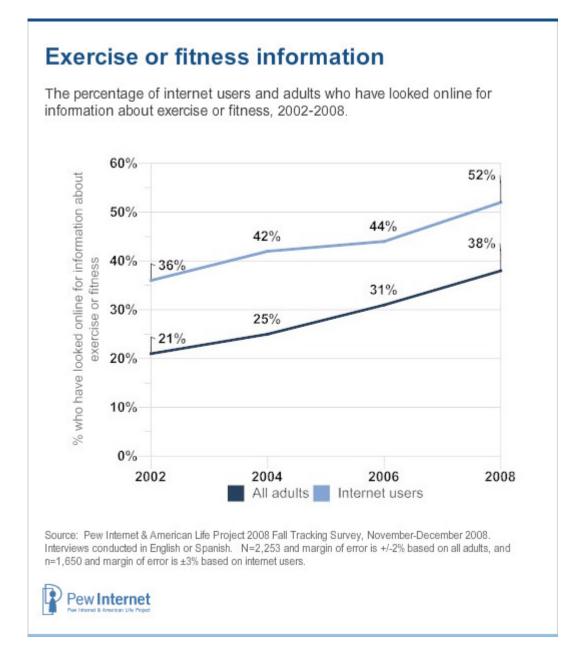
Internet users with higher levels of education and incomes are also significantly more likely than those with lower education and income levels to research specific medical treatments or procedures online. Fully 63% of college graduates and 60% of adults with some college education look online for information about medical treatments or procedures. By contrast, 44% of internet users with a high school diploma and 43% of internet users with less than a high school education go online to find this information.

Similarly, 65% of internet users with household incomes of \$75,000 or more and 60% of those making \$50,000-\$74,999 research certain medical treatments or procedures online, compared with about half (50%) of those making \$30,000-\$49,999 and just 46% of those making less than \$30,000 to look for information on medical treatments.

Part 9. 52% of internet users look online for information about exercise or fitness

Changes over time

American adults have stepped up their searches for exercise and fitness tips over the last six years. Among internet users, the percentage of those seeking fitness information has jumped from 36% in the year 2002 to 52% now – one of the biggest growths since 2002 out of all health searches.



Demographics

Younger and more educated internet users are significantly more likely than their counterparts to have looked online for fitness information.

Online adults under the age of 50 are much more likely than adults 50 and older to look up fitness and exercise information online. Some 61% of online 18-29 year olds and 57% of 30-49 year olds have looked up fitness information online, compared with 44% of 50-64 year old internet users and just a quarter of internet users age 65 and older.

Internet users with at least some college education are also significantly more likely than those with no college education to research exercise and fitness information online. Nearly two-thirds of college graduate internet users sought fitness information online, and 56% of online adults with some college education did so. On the other hand, just 40% of those with a high school degree and 42% of internet users with less education went online to find exercise and fitness information.

Exercise or fitness

Percentage of internet users within each group who have looked online for information about exercise or fitness

	2002	2008	% point difference (only significant changes are noted)
Total	36%	52%	16
Sex			
Men	34%	48%	14
Women	38	56	18
Race/Ethnicity			
White (non-Hispanic)	33%	50%	17
African American (non-Hispanic)	36*	57*	21
Hispanics	47*	52*	177,6
Age			
18-29	51%^	61%^	10
30-49	35	57^	22
50-64	28	44	16
65+	13	25	12
Education			
Less than high school	32%*	42%*	
High school diploma	29	40	11
Some college	38^	56^	18
College graduate	41^	62^	21
Household Income			
Less than \$30,000	33%	49%	16
\$30,000-\$49,999	38	59	21
\$50,000-\$74,999	36	49	13
\$75,000 or more	41	60	19

Source: Pew Internet & American Life Project 2008 Fall Tracking Survey, November-December 2008. Interviews conducted in English or Spanish. Margin of error is ±3% based on internet users. ^These demographics are significantly more likely to search for information about exercise and fitness. *Note: Due to the relatively small base size of African American (n=140), Hispanic (n=120), and lesseducated internet users (n=76), please interpret these results with some caution.

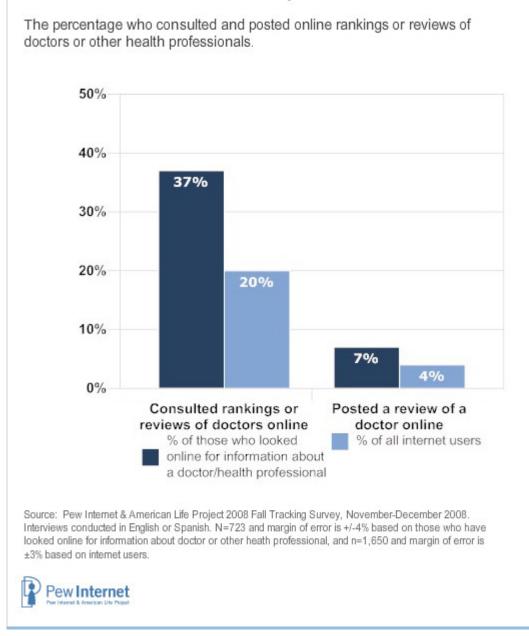


African American internet users, internet users with a college degree, and internet users ages 30-49 lead all other groups in their pursuit of online fitness tips, each registering at least a 20-point increase between 2002 and 2008. In particular, 30-49 year old internet users gained ground on 18-29 year olds, compared with whom they were significantly less likely to look up fitness information in 2002.

Part 10. 47% of internet users look online for information about doctors or other health professionals.

Nearly half (47%) of internet users, or 35% of adults, have turned to the internet for information about doctors or other health professionals.

Some 37% of adults seeking information about doctors (or 20% of all internet users) consulted rankings or reviews online of doctors or other providers. These health information seekers, however, are not likely to post their own reviews of doctors: just 7% of those who looked for information about doctors online (and 4% of all internet users) report posting a review of a doctor online.



Doctors or other health professionals

Demographics

Online women, internet users under the age of 65, and internet users with higher levels of income and education are significantly more likely than other demographics to look online for information about doctors and other health professionals.

Over half of online women (52%) research doctors and other health professionals online, compared with 41% of men.

Wired seniors are significantly less likely than younger age groups to look for information about doctors online. Just over a quarter (26%) of wired seniors look online for this information, while 43% of internet users age 50-64, 52% of internet users age 30-49, and 49% of internet users age 18-29 do so.

Doctors or other health professionals

Percentage of internet users within each group who have looked online for information about doctors or other health professionals

	% internet users		
Total	47%		
Sex			
Men	41%		
Women	52^		
Race/Ethnicity			
White (non-Hispanic)	47%		
African American (non-Hispanic)	44*		
Hispanics	43*		
Age			
18-29	49%^		
30-49	52^		
50-64	43^		
65+	26		
Education			
Less than high school	34%*		
High school diploma	37		
Some college	50^		
College graduate	55^		
Annual Household Income			
Less than \$30,000	41%		
\$30,000-\$49,999	49		
\$50,000-\$74,999	49		
\$75,000 or more	55		

Source: Pew Internet & American Life Project 2008 Fall Tracking Survey, November-December 2008. Interviews conducted in English or Spanish. Margin of error is ±3% based on internet users. ^These demographics are significantly more likely to search information about doctors or other health

professionals.

*Note: Due to the relatively small base size of African American (n=140), Hispanic (n=120), and lesseducated internet users (n=76), please interpret these results with some caution.

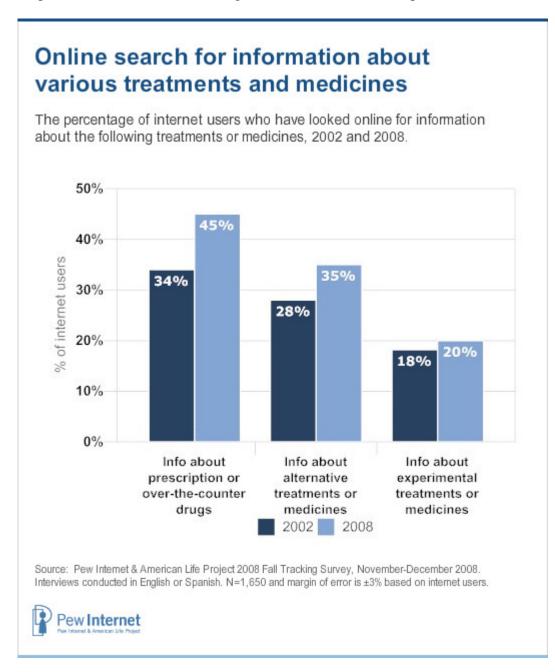
Pew Internet Per Internet & American Life Project Internet users with some college education along with college graduates are significantly more likely than those with less education to look online for information about doctors or health professionals. Over half (55%) of college graduates and half (50%) of internet users with some college education have sought information about doctors online, compared with just 37% of those with a high school diploma and about a third (34%) of internet users with no high school education.

Finally, internet users living in households with annual incomes of \$75,000 or more are significantly more likely than those in households making less than \$30,000 a year to look for information about a doctor or health professional online.

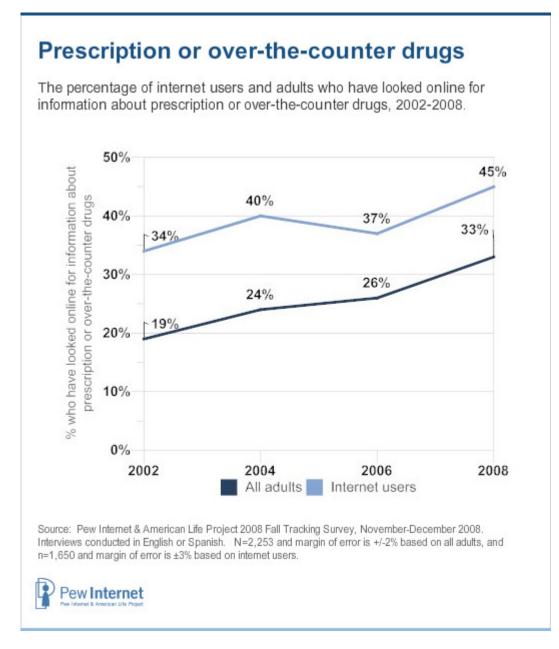
Part 11. 45% of internet users look online for information about prescription or over-the-counter drugs.

Changes over time

More Americans are looking online for information about prescription drugs and other treatments than they were in 2002, and more Americans are continuing to search for prescription and over-the-counter drugs than for alternative or experimental treatments.



Searches for prescription or over-the-counter drugs saw a significant jump over the last six years. Currently, 45% of online adults look for information about prescription or over-the-counter drugs, up from 34% in 2002.



Demographics

Some demographic groups are more likely than others to search for information about prescription and over-the-counter drugs online. Based on adult internet users:

- Women are significantly more likely than men to look online for information about prescription or over-the-counter drugs.
- Whites are more likely than African Americans or Hispanics to look online for information about prescription or over-the-counter drugs.

- Those with at least some college education are significantly more likely than those with no college education to search online for information about prescription or over-the-counter drugs.
- Internet users in households making \$50,000 or more a year are significantly more likely than those making less than \$30,000 to look online for information about prescription or over-the-counter drugs.

Prescription and over-the-counter drugs

Percentage of internet users within each group who have looked online for information about prescription or over-the-counter drugs

	2002	2008	% point difference (only significant changes are noted)
Total	34%	45%	11
Sex			
Men	29%	40%	11
Women	38	49^	11
Race/Ethnicity			
White (non-Hispanic)	35%	48%^	13
African American (non-Hispanic)	33	37*	
Hispanics	23	36*	
Age			
18-29	29%	38%	
30-49	34	47	13
50-64	40	50	10
65+	31	41	
Education			
Less than high school	27%	30%*	-
High school diploma	29	35	
Some college	37	49^	12
College graduate	35	54^	19
Annual Household Income			
Less than \$30,000	25%	39%	14
\$30,000-\$49,999	41	46	
\$50,000-\$74,999	35	51^	16
\$75,000 or more	37	52^	15

Source: Pew Internet & American Life Project 2008 Fall Tracking Survey, November-December 2008. Interviews conducted in English or Spanish. Margin of error is $\pm 3\%$ based on internet users.

^These demographics are significantly more likely to search for information about prescription or over-thecounter drugs.

*Note: Due to the relatively small base size of African American (n=140), Hispanic (n=120), and lesseducated internet users (n=76), please interpret these results with some caution.



While most adults looking online for information about specific treatments weigh many different options, those seeking prescription or over-the-counter drug information are less likely to look at alternative or experimental treatments Fifty-five percent of online adults have looked online for information about at least one of the following three methods of health treatment: prescription or over-the-counter drugs, alternative treatments or medicines, or experimental treatments or medicines. Of those who look online for drug or treatment information:

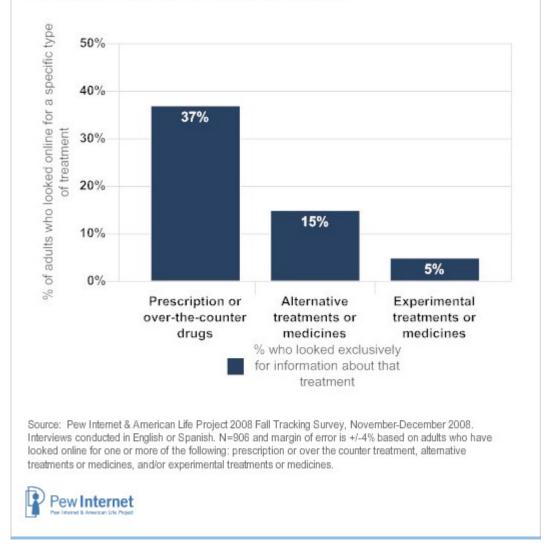
- 42% have looked for information about only one method of treatment,
- 58% have weighed at least two methods of treatment, and
- 23% have looked into all three: prescription or over-the-counter drugs, alternative treatments or medicines, and experimental treatments or medicines.

Of those who said they look online for information about prescription or over-the-counter drugs, 37% *only* look for information on that type of treatment, while 63% also use the internet to find information about at least one other type of treatment (either alternative or experimental). The percentage of drug information seekers who look exclusively for information on prescription or over-the-counter drugs is significantly higher than the percentage of alternative and experimental treatment information seekers who *only* look for information about alternative or experimental treatment, respectively:

- 15% of adults who look online for information about alternative treatments and medicines look *exclusively* for that information; they do not look for information on prescription or over-the-counter drugs or for experimental treatments or medicines.
- 5% of adults who look online for information about experimental treatments and medicines look *exclusively* for that information; they do not look for information on prescription or over-the-counter drugs or for alternative treatments or medicines.

Prescription drug seekers are less likely to look for info about other treatments

The percentage of adults looking online for a specific type of treatment who look for information only about that type of treatment.

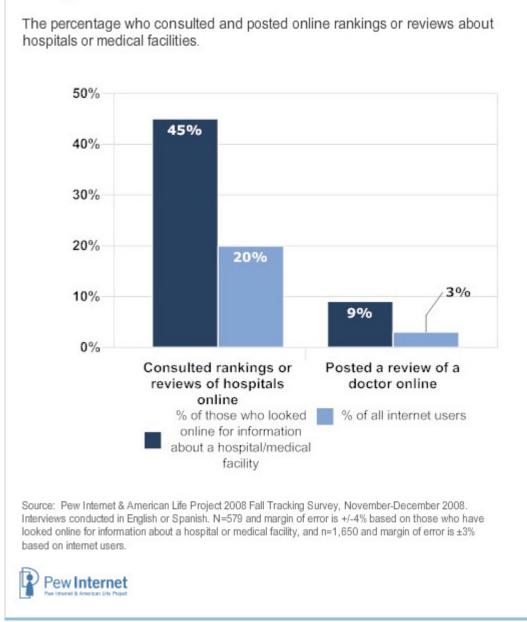


This difference in search habits suggests that those looking for information about alternative treatments – and especially those looking into experimental treatments – are much more likely to research, or have researched, other treatment options as well. On the other hand, those looking for prescription or over-the-counter drugs are less likely than those seeking alternative and experimental treatments to look into other methods of treatments.

Part 12. 38% of internet users look online for information about hospitals or other medical facilities.

Some 38% of internet users, or 28% of adults, go online in search of information about hospitals or medical facilities.

Of those adults seeking hospital information online, 45% have consulted online rankings or reviews of hospitals or other medical facilities. About one-fifth (20%) of all internet users have looked at online rankings or reviews of medical facilities. Additionally, 9% of hospital information seekers (just 3% of internet users) actively posted their own review of a hospital or medical facility.



Hospitals or other medical facilities

Demographics

Certain demographic groups are more likely than others to search online for information about hospitals or other medical facilities. In particular, women, younger internet users, and those with higher education and income levels tend to be more likely to turn to the internet for information about medical facilities.

Some 41% of online women look for information about hospitals online, while 34% of online men do so.

Internet users under the age of 50 are considerably more likely than adults aged 50 and older to look for hospital information online. Within the older cohort, 50-64 year olds are significantly more likely than seniors to look online for information about medical facilities. Forty-six percent of internet users age 18-29 and 40% of internet users age 30-49 have looked online for information about medical facilities, compared with 32% of internet users age 50-64 and just one-fifth (20%) of wired seniors.

Hospitals or other medical facilities

Percentage of internet users within each group who have looked online for information about hospitals or other medical facilities

	% internet users		
Total	38%		
Sex			
Men	34%		
Women	41^		
Race/Ethnicity			
White (non-Hispanic)	39%		
African American (non-Hispanic)	34*		
Hispanics	35*		
Age			
18-29	46%^		
30-49	40^		
50-64	32^		
65+	20		
Education			
Less than high school	33%*		
High school diploma	27		
Some college	44^		
College graduate	43^		
Annual Household Income			
Less than \$30,000	36%		
\$30,000-\$49,999	40		
\$50,000-\$74,999	35		
\$75,000 or more	44		

Source: Pew Internet & American Life Project 2008 Fall Tracking Survey, November-December 2008. Interviews conducted in English or Spanish. Margin of error is ±3% based on internet users. ^These demographics are significantly more likely to search for information about hospitals or other medical

facilities.

*Note: Due to the relatively small base size of African American (n=140), Hispanic (n=120), and lesseducated internet users (n=76), please interpret these results with some caution.

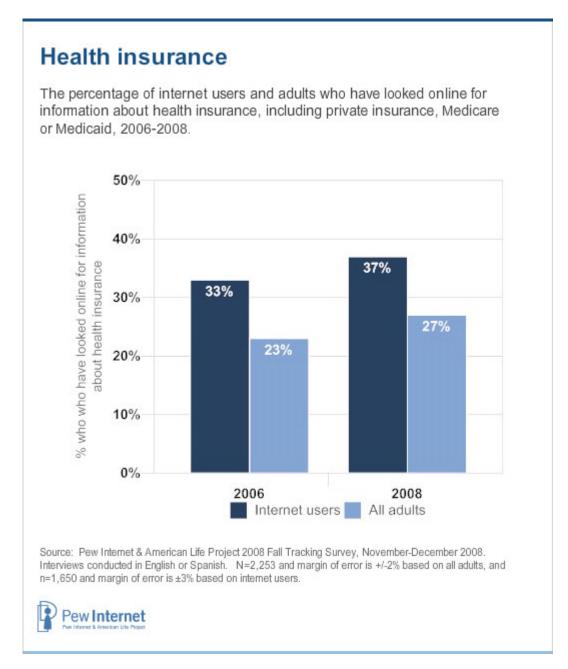


Internet users with more education and those living in higher-income households are also significantly more likely than other groups to look for hospital or medical facility information online.

Part 13. 37% of internet users look online for information about health insurance, including private insurance, Medicare or Medicaid.

Changes since 2006

The percentage of internet users who look online for health insurance information has increased slightly, but significantly, over the past two years. In 2006, about a third (33%) of online adults researched health insurance online, and, in 2008, 37% did so.



Demographics

Most demographic groups are about equally likely to look up health insurance information online; however, there are a few exceptions. Internet users age 65 and older are significantly less likely than younger age groups to seek insurance information – including information about Medicare – online. Less than a quarter (23%) of online seniors look online for health insurance information, compared with about a third (33%) of internet users 50-64 years old, 41% of internet users 30-49 years old, and 39% of internet user 18-29 years old. Additionally, the percentage of young internet users (18-29 years old) to search for health insurance information online increased considerably over the last two years, from 27% to 39%.

College graduates (44%) and internet users with some college education (38%) are also significantly more likely than high school graduates (29%) to look online for information about health insurance.

Health Insurance

Percentage of internet users within each group who have looked online for information about health insurance, including private insurance, Medicare or Medicaid

	2006~	2008	% point difference (only significant changes are noted)
Total	33%	37%	4
Sex			
Men	33%	37%	-
Women	33	37	-
Race/Ethnicity		19	
White (non-Hispanic)	34%	37%	-
African American (non-Hispanic)	34	45*	-
Hispanics	31	29*	-
Age		19	
18-29	27%	39%^	12
30-49	37^	41^	-
50-64	33	33^	-
65+	26	23	-
Education			-
Less than high school	28%	39%*	-
High school diploma	24	29	-
Some college	32	38^	-
College graduate	42^	44^	-
Annual Household Income			-
Less than \$30,000	35%	38%	-
\$30,000-\$49,999	35	41	
\$50,000-\$74,999	35	41	-
\$75,000 or more	36	39	

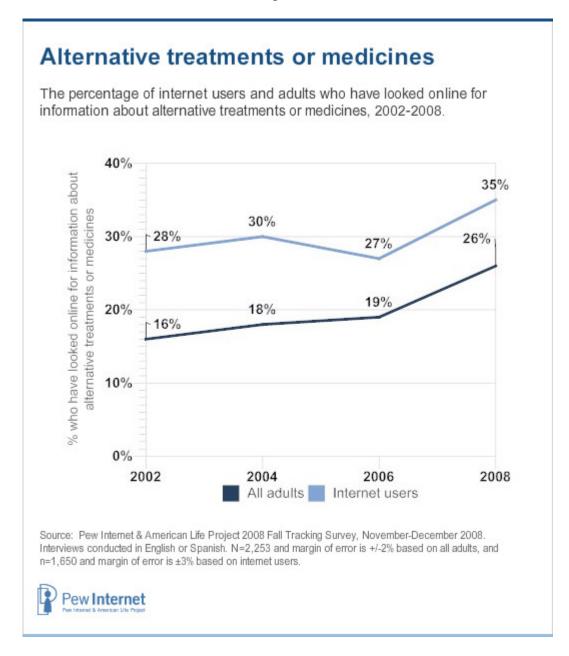
Source: Pew Internet & American Life Project 2008 Fall Tracking Survey, November-December 2008. Interviews conducted in English or Spanish. Margin of error is ±3% based on internet users. ~Note: August 2006 trend was recalculated to reflect combined responses for two separate items: Information related to health insurance and Information about Medicare or Medicaid ^These demographics are significantly more likely to search for information about health insurance. *Note: Due to the relatively small base size of African American (n=140), Hispanic (n=120), and lesseducated internet users (n=76), please interpret these results with some caution.



Part 14. 35% of internet users look online for information about alternative treatments or medicines.

Changes over time

More internet users are looking for information about alternative treatments and medicines than they were six years ago. Currently, 35% of internet users look online for information about alternative treatments, up from 28% of online adults in 2002.



Demographics

Women are significantly more likely than men to look online for alternative treatments and medicines (37%, compared with 31%).

In addition, adults over the age of 65 are significantly *less* likely than younger adults to look up alternative treatments and medicines online. This gap is a change from 2002, when internet users from all age groups were more equally likely to research alternative treatments online.

In addition, since 2002, internet users age 18-29 have become significantly more likely to look for alternative treatments. Young internet users trailed older ones in 2002 with just 22% interested in alternative treatments online, but in 2008 34% of young internet users claimed to have searched online for information about alterative treatments or medicines.

Alternative treatments or medicines

Percentage of internet users within each group who have looked online for information about alternative treatments or medicines

	2002	2008	% point difference (only significant changes are noted)
Total	28%	35%	7
Sex			
Men	23%	31%	8
Women	33^	37^	
Race/Ethnicity			
White (non-Hispanic)	28%	34%	6
African American (non-Hispanic)	31	34*	
Hispanics	18	37*	-
Age			
18-29	22%	34%^	12
30-49	30^	38^	8
50-64	32^	36^	
65+	23	19	
Education			
Less than high school	21%	35%*	
High school diploma	25	27	
Some college	29	37	8
College graduate	30	40	10
Annual Household Income			
Less than \$30,000	21%	38%	17
\$30,000-\$49,999	34	33	
\$50,000-\$74,999	26	39	13
\$75,000 or more	29	36	-

Source: Pew Internet & American Life Project 2008 Fall Tracking Survey, November-December 2008. Interviews conducted in English or Spanish. Margin of error is ±3% based on internet users.

^These demographics are significantly more likely to search for information about alternative treatments or medicines.

*Note: Due to the relatively small base size of African American (n=140), Hispanic (n=120), and lesseducated internet users (n=76), please interpret these results with some caution.



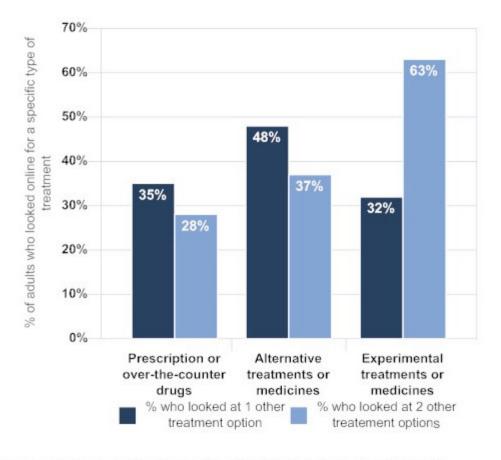
Alternative treatment information seekers are more likely than drug information seekers to look for information about a different type of treatment.

Nearly half (48%) of adults who look online for information about alternative treatments or medicines also reported looking into either prescription drugs or experimental treatment as well. Some 37% of those researching alternative treatments also search online for both drug treatment as well as experimental treatment information. Just 15% of those seeking information on alternative treatment look exclusively for information on that type of treatment.

Adults seeking information on alternative treatments are significantly more likely than those seeking prescription drug information to look into a second or third form of treatment. However, alternative treatment seekers are significantly *less* likely to research a third treatment method (but more likely to look at just two) than seekers of experimental treatment.

Most alternative treatment seekers also look at other treatment options

The percentage of adults who have looked for information about a specific type of treatment who have also looked for information about one or two additional treatment options.



Source: Pew Internet & American Life Project 2008 Fall Tracking Survey, November-December 2008. Interviews conducted in English or Spanish. N=748 and margin of error is +/-4% based on those who have looked online for information about prescription or over the counter drugs, n=551 and margin of error is ±5% based on those who have looked for information about atternative treatments or medicines, and n=322 and margin of error is ±-6% based on those who have looked online for experimental treatments or medicines.

Pew Internet

Part 15. 33% of internet users look online for information about how to lose weight or how to control their weight

One-third of internet users, or 24% of adults, has looked for weight-loss or weightcontrol information on the internet. This is the first survey in which the Pew Internet Project has asked this question, so there is no comparative data for previous years.

Certain demographic groups are significantly more likely than their counterparts to search for information about weight loss: online women, younger online adults, and college-educated internet users.

Women are nearly twice as likely as men to say they have looked online for weight control tips: 42% of online women vs. 24% of online men.

Younger internet users (ages 18-49) are more likely than older ones (age 50+) to look for weight-control information, and 50-64 year olds are more likely than internet users age 65 and older to look for this information online. Some 37% of 18-29 year-old internet users and 38% of 30-49 year-old internet users look for information about controlling their weight, compared with 31% of 50-64 year-olds and just 13% of wired seniors.

Adults who have attended college are more likely than those with less education to look for fitness and weight-control information. Nearly two in five college graduates and 37% of adults with some college education have looked for information about weight control, while about a quarter of those with high school diplomas or less education look online for this type of information.

Weight loss or weight control

Percentage of internet users within each group who have looked online for information about how to lose weight or how to control their weight

	% internet users	
[otal	33%	
Sex		
Men	24%	
Nomen	42^	
Race/Ethnicity		
White (non-Hispanic)	32%	
African American (non-Hispanic)	46*^	
Hispanics	37*	
Age		
18-29	37%^	
30-49	38^	
50-64	31^	
65+	13	
Education		
Less than high school	24%*	
High school diploma	26	
Some college	37^	
College graduate	39^	
Annual Household Income		
Less than \$30,000	32%	
\$30,000-\$49,999	34	
\$50,000-\$74,999	35	
\$75,000 or more	40	

Source: Pew Internet & American Life Project 2008 Fall Tracking Survey, November-December 2008. Interviews conducted in English or Spanish. Margin of error is ±3% based on internet users. ^These demographic groups are significantly more likely to search for information about how to lose weight

or control weight.

*Note: Due to the relatively small base size of African American (n=140), Hispanic (n=120), and lesseducated internet users (n=76), please interpret these results with some caution.



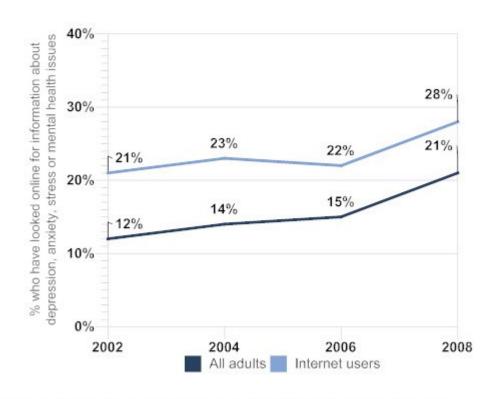
Part 16. 28% of internet users look online for information about depression, anxiety, stress or mental health issues.

Changes over time

The percentage of adults who look online for information about mental health issues has increased in the past two years. From 2002-2006, online searches for information about mental health issues remained relatively stable, around 22%. In 2008, however, the percentage of internet users to look online for information about depression, anxiety, stress or mental health issues rose to 28%, a statistically significant increase.

Depression, anxiety, stress or mental health issues

The percentage of internet users and adults who have looked online for information about depression, anxiety, stress or mental health issues, 2002-2008.



Source: Pew Internet & American Life Project 2008 Fall Tracking Survey, November-December 2008. Interviews conducted in English or Spanish. N=2,253 and margin of error is +/-2% based on all adults, and n=1,650 and margin of error is ±3% based on internet users.



Demographics

Women account for much of the growth in online research of mental health issues over the past six years, whereas men have remained about equally likely to look for this information online. Thirty-five percent of online women go online to find information about mental health issues, compared with 22% of men.

Internet users under the age of 65 are more than twice as likely as wired seniors to turn to the internet for information about mental health. Fully one-third (33%) of online 18-29 year olds, 32% of online 30-49 year olds, and 26% of online 50-64 year olds look for mental health information online, while just 12% of online adults age 65 and older do so.

Additionally, those with higher levels of education are also significantly more likely than those with less education to seek mental health information online. Some 32% of college graduates and 31% of adults with some college education reported looking for mental health information online, compared with 24% of those with a high school diploma and 26% of those with less than a high school education who reported doing so.

Depression, anxiety, stress or mental health issues

Percentage of internet users within each group who have looked online for information about depression, anxiety, stress or mental health issues

	2002	2008	% point difference (only significant changes are noted)
Total	21%	28%	7
Sex			
Men	17%	22%	-
Women	25^	35^	10
Race/Ethnicity			
White (non-Hispanic)	21%	28%	7
African American (non-Hispanic)	16	27*	
Hispanics	20	30*	
Age			
18-29	22%^	33%^	11
30-49	24^	32^	8
50-64	19^	26^	7
65+	6	12	
Education			
Less than high school	20%	26%*	
High school diploma	18	24	
Some college	23	31^	8
College graduate	22	32^	10
Annual Household Income			
Less than \$30,000	19%	33%	14
\$30,000-\$49,999	29^	31	-
\$50,000-\$74,999	22	30	-
\$75,000 or more	19	27	8

Source: Pew Internet & American Life Project 2008 Fall Tracking Survey, November-December 2008. Interviews conducted in English or Spanish. Margin of error is ±3% based on internet users. ^These demographics are significantly more likely to search for information about depression, anxiety or mental health issues.

*Note: Due to the relatively small base size of African American (n=140), Hispanic (n=120), and lesseducated internet users (n=76), please interpret these results with some caution.



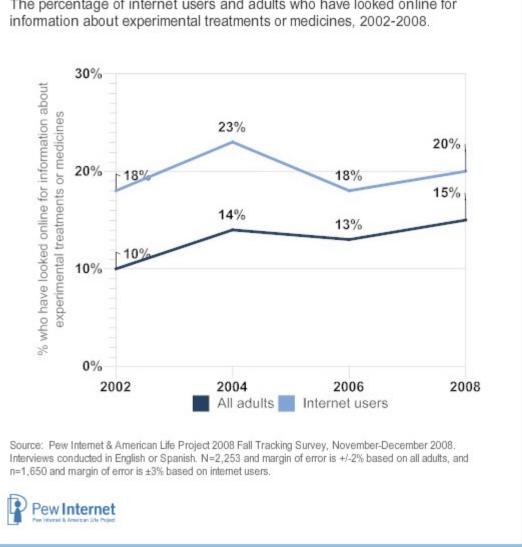
Part 17. 26% of internet users look online for information about a health issue not listed in the survey.

About a quarter of internet users have looked online for information about some other health issue not listed in the survey. The majority (61%) of respondents who answered "yes" to this question also looked online for information about six to ten other health topics that were listed. Less than 1% of internet users did not find their health search topic listed in the survey, but have looked for information about some other health issue.

Part 18. 20% of internet users look online for information about experimental treatments or medicines.

Changes over time

The percentage of internet users who look online for information about experimental treatments or medicines has remained relatively steady over the past six years. About one-fifth (20%) of internet users currently research experimental treatments online, up just two percentage points, from 18%, since 2002 – a statistically insignificant change.



Experimental treatments or medicines

The percentage of internet users and adults who have looked online for

Demographics

Nearly all demographic groups are about equally likely to look for experimental treatment information online.

In a trend similar to that in alternative treatments, internet users age 65 and older are significantly less likely than younger internet users to research experimental treatments online. Just one in ten (10%) wired seniors look online for information about experimental treatments, while roughly 21% of younger internet users do so.

Experimental treatments or medicines

Percentage of internet users within each group who have looked online for information about experimental treatments or medicines

	2002	2008	% point difference (only significant changes are noted)
Total	18%	20%	-
Sex			
Men	16%	20%	-
Women	20	20	
Race/Ethnicity	· · · · · · · · · · · · · · · · · · ·		
White (non-Hispanic)	17%	20%	
African American (non-Hispanic)	17	25	
Hispanics	18	19	
Age			
18-29	17%	22%^	
30-49	20	21^	-
50-64	16	21^	-
65+	14	10	
Education			
Less than high school	28%	19%	
High school diploma	15	15	
Some college	17	23	
College graduate	20	22	
Annual Household Income	· · · · · · · · · · · · · · · · · · ·		
Less than \$30,000	19%	19%	
\$30,000-\$49,999	22	16	
\$50,000-\$74,999	14	26	12
\$75,000 or more	19	24	-

Source: Pew Internet & American Life Project 2008 Fall Tracking Survey, November-December 2008. Interviews conducted in English or Spanish. Margin of error is $\pm 3\%$ based on internet users.

^These demographics are significantly more likely to search for information about experimental treatments or medicines.

*Note: Due to the relatively small base size of African American (n=140), Hispanic (n=120), and lesseducated internet users (n=76), please interpret these results with some caution.



The only demographic group that showed a significant increase in the percentage looking online for information about experimental treatment were those in households making \$50,000-\$74,999. In 2002, 14% of this mid-upper income group looked into experimental treatments online, and in 2008 over a quarter (26%) did so.

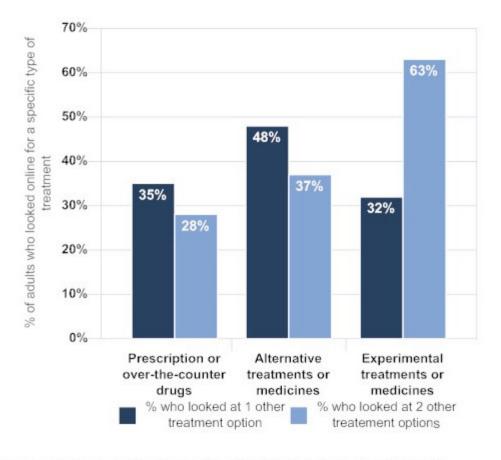
Adults seeking experimental treatment information are much more likely to also look for information about *both* prescription or over-the-counter drug and alternative treatments or medicines.

Nearly two-thirds (63%) of adults who looked for information about experimental treatments at some point also researched other forms of treatment online, including drugs and alternative medicines. Only 5% of adults who sought information about experimental treatment looked exclusively for information on treatment of that sort. In all, 95% weighed at least one other method of treatment.

Those looking for drug and alternative treatment information online were much less likely than adults looking for experimental treatment to also look at the other two options. Some 85% of alternative treatment information seekers looked for information about at least one other treatment method, while 63% of drug information seekers did so.

Most experimental treatment seekers also look at other treatment options

The percentage of adults who have looked for information about a specific type of treatment who have also looked for information about one or two additional treatment options.



Source: Pew Internet & American Life Project 2008 Fall Tracking Survey, November-December 2008. Interviews conducted in English or Spanish. N=748 and margin of error is +/-4% based on those who have looked online for information about prescription or over the counter drugs, n=551 and margin of error is ±5% based on those who have looked for information about atternative treatments or medicines, and n=322 and margin of error is ±-6% based on those who have looked online for experimental treatments or medicines.

Pew Internet

Part 19. 12% of internet users look online for information about how to stay healthy on a trip overseas.

Just 12% of internet users, or 9% of adults, look online for information about how to stay healthy on a trip overseas, such as through immunizations and shots. This is the first survey in which the Pew Internet Project has asked this question, so there is no comparative data for previous years.

There are, however, distinct demographic groups that are particularly likely to look up information about staying healthy during travel overseas. For one, young adults (18-29 years old) are significantly more likely than adults aged 30 and older to search online for health information about overseas travel. Some 18% of young adults have looked for this information, while just 11% of 30-49 year olds, 10% of 50-64 year olds and 6% of adults 65 and older have done so.

In addition, adults of higher socio-economic status are significantly more likely than adults with lower education and income levels to look online for information about staying healthy on an overseas trip. These groups are probably more likely to be able to afford overseas travel. Some 18% of college graduates and 17% of adults in households making \$75,000 or more a year have looked into health information related to travel. Adults with less than a full college education and those in households making less than \$75,000 a year are significantly less likely to look for information about how to stay healthy on a trip overseas.

Staying healthy on a trip overseas

Percentage of internet users within each group who have looked online for information about how to stay healthy on a trip overseas

	% internet users
Γotal	12%
Sex	
Men	13%
Women	12
Race/Ethnicity	
White (non-Hispanic)	11%
African American (non-Hispanic)	15*
Hispanics	16*
Age	
18-29	18%^
30-49	11
50-64	10
65+	6
Education	
Less than high school	12%*
High school diploma	8
Some college	10
College graduate	18^
Annual Household Income	
Less than \$30,000	10%
\$30,000-\$49,999	12
\$50,000-\$74,999	11
\$75,000 or more	17^

Source: Pew Internet & American Life Project 2008 Fall Tracking Survey, November-December 2008. Interviews conducted in English or Spanish. Margin of error is ±3% based on internet users. ^These demographics are significantly more likely to search for information about staying healthy on a trip

overseas. *Note: Due to the relatively small base size of African American (n=140), Hispanic (n=120), and lesseducated internet users (n=76), please interpret these results with some caution.

Pew Internet Pow Internet & American Unite Project

About the sponsors

The Pew Internet Project is an initiative of the Pew Research Center, a nonprofit "fact tank" that provides information on the issues, attitudes and trends shaping America and the world. The Pew Internet Project explores the impact of the internet on children, families, communities, the work place, schools, health care and civic/political life. The Project is nonpartisan and takes no position on policy issues. Support for the Project is provided by The Pew Charitable Trusts. More information is available at <u>www.pewinternet.org</u>

The California HealthCare Foundation is an independent philanthropy committed to improving the way health care is delivered and financed in California. By promoting innovations in care and broader access to information, our goal is to ensure that all Californians can get the care they need, when they need it, at a price they can afford. More information is available at <u>www.chcf.org</u>

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Some of the best ideas for this research came from all those who write and comment on E-patients.net, The Health Care Blog, and Twitter. We look forward to continuing the conversation!

Methodology

This report is based on the findings of a daily tracking survey on Americans' use of the Internet. The results in this report are based on data from telephone interviews conducted by Princeton Survey Research Associates between November 19 to December 20, 2008, among a national sample of 2,253 adults. For results based on the national sample, one can say with 95% confidence that the error attributable to sampling and other random effects is plus or minus 2.3 percentage points. For results based internet users (n=1,650), the margin of sampling error is plus or minus 2.7 percentage points. In addition to sampling error, question wording and practical difficulties in conducting telephone surveys may introduce some error or bias into the findings of opinion polls.

A combination of landline and cellular random digit dial (RDD) samples was used to represent all adults who have access to either a landline or cellular telephone. Both samples were provided by Survey Sampling International, LLC (SSI) according to PSRAI specifications. Numbers for the landline samples were selected using standard list-assisted RDD methods from active blocks (area code + exchange + two-digit block number) that contained three or more residential directory listings. The cellular samples were not list-assisted, but were drawn through a systematic sampling from dedicated wireless 100-blocks and shared service 100-blocks with no directory-listed landline numbers.

New sample was released daily and was kept in the field for at least five days. The sample was released in replicates, which are representative subsamples of the larger population. This ensures that complete call procedures were followed for the entire sample. At least 10 attempts were made to complete an interview at sampled households. The calls were staggered over times of day and days of the week to maximize the chances of making contact with a potential respondent. Each household received at least one daytime call in an attempt to find someone at home.

In each contacted household in the landline sample, interviewers asked to speak with the youngest male currently at home. If no male was available, interviewers asked to speak with the youngest female at home. This systematic respondent selection technique has been shown to produce samples that closely mirror the population in terms of age and gender. For the cellular sample, interviews were conducted with the person who answered the phone. Interviewers verified that the person was an adult and in a safe place before administering the survey. Cellular sample respondents were offered a post-paid cash incentive for their participation. All interviews completed on any given day were considered to be the final sample for that day.

Non-response in telephone interviews produces some known biases in survey-derived estimates because participation tends to vary for different subgroups of the population, and these subgroups are likely to also vary on questions of substantive interest. In order to compensate for these known biases, the sample data are weighted in analysis.

The sample was balanced to match population parameters for sex, age, education, race, Hispanic origin, region (U.S. Census definitions), population density, and telephone usage. The basic weighting parameters came from a special analysis of the Census Bureau's 2007 Annual Social and Economic Supplement (ASEC). The population density parameter comes from 2000 Census data. The cell phone usage parameter came from an analysis of the July-December 2006 National Health Interview Survey.

The response rates for the land line sample were 21 percent. The response rates for the cellular sample were 25 percent.