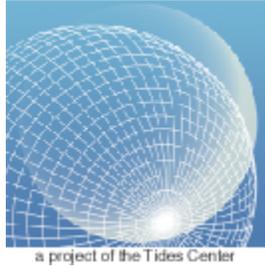


www.pewinternet.org



^{Pew}
& Internet
American Life
PROJECT

Wired for Health

How Californians compare to the rest of the nation: A case study sponsored by the California HealthCare Foundation

Embargoed until 5pm Eastern on 14 December 2003

Susannah Fox, Director of Research

PEW INTERNET & AMERICAN LIFE PROJECT 1100 CONNECTICUT AVENUE, NW – SUITE 710 WASHINGTON, D.C. 20036

202-296-0019 <http://www.pewinternet.org/>

Summary of Findings

The California HealthCare Foundation engaged the Pew Internet & American Life Project to take a closer look at how Californians use the Internet to research health information, particularly Latino Internet users and low-income Internet users.

Low-income Californians are more likely than other low-income Americans to go online and to search for health information.

- 45% of Californians living in households with annual incomes of less than \$30,000 report having access to the Internet, compared to 36% of those living in low-income households outside California (those living in the 47 other continental states).
- 84% of low-income Californian Internet users have searched online for at least one health topic, compared to 77% of low-income non-Californian Internet users.
- 66% of low-income California Internet users report that the Internet has improved the health and medical information and services they receive. This is not quite as high as the 76% of higher-income Internet users who report benefits from going online, but it nevertheless represents a striking endorsement of the way that online searches help those with medical issues.
- By contrast, 77% of Californians (and 74% of non-Californians) living in households with more than \$30,000 annual income have Internet access. 83% of higher-income Californian Internet users and 84% of higher-income non-Californian Internet users have searched for health information online.

Latino Californians search online for health information, especially if they speak English.

- 58% of California's English-speaking Latinos have access to the Internet, compared to 63% of all Californians.
- 78% of English-speaking Californian Latino Internet users have researched at least one health topic online, which is just below the average for all Californian Internet

This Pew Internet & American Life Project report is based on the findings of a daily tracking survey on Americans' use of the Internet and an online survey about Internet health resources. All numerical data was gathered through telephone interviews conducted by Princeton Survey Research Associates between November 25 and December 22, 2002, among a sample of 2,038 adults, aged 18 and older. For results based on the total sample, one can say with 95% confidence that the error attributable to sampling and other random effects is +/- 2%. For results based on California residents (n=663) the margin of sampling error is +/- 4%.

users (83%).

- 74% of California's Latino Internet users in our survey report that the Internet has improved the health and medical information and services they receive.
- However, the Center for Studying Health System Change has found that, for the U.S. as a whole, Spanish-speaking Latinos were about half as likely as their English-speaking counterparts to have looked for health information online.¹

Health insurance, alternative medicine, and experimental treatments are more popular topics among Californian Internet users than other online Americans.

- 31% of online Californians have searched the Internet for information about health insurance, compared to 24% of the rest of the country's Internet users.
- 33% of online Californians have searched for alternative treatments, compared to 27% of the rest of the country's Internet users.
- 23% of online Californians have searched for experimental medical treatments, compared to 17% of the rest of the country's Internet users.

¹ Center for Studying Health System Change: Latino Consumers' Information Seeking and Information Sharing with Doctors, Unadjusted and Adjusted Means (September 2003). Available at: <http://www.hschange.com/CONTENT/537/?supp=3>

Summary of Findings

California: Summary of Findings at a Glance
Low-income Californians are more likely than other low-income Americans to go online and to search for health information. Most report benefits from their online health searches.
Latino Californians search online for health information, especially if they speak English.
Health insurance, alternative medicine, and experimental treatments are particularly popular topics among Californian Internet users.
Source: Fox, Susannah. <i>Wired for Health</i> . Washington, DC: Pew Internet & American Life Project, December 14, 2003.

Contents

Summary of Findings

Acknowledgements

Part 1. Introduction

Part 2. Low-Income Americans Buck the Trends

Part 3. English-Speaking Latino Californians Search for Health Information

Part 4. Californians Are the Same, but Different

Part 5. Implications for the Future

Methodology

Acknowledgements

On behalf of the Pew Internet & American Life Project, the author would like to acknowledge the contributions to this study by the following people:

Claudia Page and Sam Karp provided editorial direction and insights at every stage of research. Ha Tu of the [Center for Studying Health System Change](#) provided indispensable data about Latinos' Internet usage throughout the United States.

We are grateful to those who posted official announcements about the online survey: John Lester, Information Systems Director at the [Department of Neurology](#), Massachusetts General Hospital; Gilles Frydman, founder of ACOR – the Association of [Online Cancer Resources](#).; Alan Greene, MD, Chief Medical Officer of A.D.A.M., Founder & CEO of [DrGreene.com](#), and the Pediatric Expert for AmericanBaby.com; and Joe and Terry Graedon, authors of [The People's Pharmacy](#), a syndicated newspaper column. We are also grateful to all the unofficial announcements made by Internet users on listservs, on Web sites, in personal email, and in neighborhoods. The response to the online survey by nearly 2,000 Internet users was extraordinary and shaped every aspect of this report.

About the Pew Internet & American Life Project: The Pew Internet Project is a nonprofit, non-partisan think tank that explores the impact of the Internet on children, families, communities, the work place, schools, health care and civic/political life. The Project aims to be an authoritative source for timely information on the Internet's growth and societal impact. Support for the project is provided by The Pew Charitable Trusts. The project's Web site: www.pewinternet.org

About the California HealthCare Foundation: The California HealthCare Foundation (CHCF), based in Oakland, is an independent philanthropy committed to improving California's health care delivery and financing systems. Formed in 1996, its goal is to ensure that all Californians have access to affordable, quality health care. CHCF's work focuses on informing health policy decisions, advancing efficient business practices, improving the quality and efficiency of care delivery, and promoting informed health care and coverage decisions. For more information, visit www.chcf.org.

About Princeton Survey Research Associates: PSRA conducted the survey that is covered in this report. It is an independent research company specializing in social and policy work. The firm designs, conducts, and analyzes surveys worldwide. Its expertise also includes qualitative research and content analysis. With offices in Princeton, New Jersey, and Washington, D.C., PSRA serves the needs of clients around the nation and the world. The firm can be reached at 911 Commons Way, Princeton, NJ 08540, by telephone at 609-924-9204, by fax at 609-924-7499, or by email at ResearchNJ@PSRA.com

Part 1.

Introduction

Californians are wired for health.

California was the epicenter of the dot-com boom that introduced millions of Americans to the Internet. Many Californians enjoyed the prosperity of the late 1990s and now, unfortunately, are feeling the pinch of a tightened state budget and decreased benefits.² Still, Internet use among Californians continues to grow among all age and income groups.

The California HealthCare Foundation engaged the Pew Internet & American Life Project to take a closer look at how Californians are using the Internet to research health information. Telephone interviews were conducted with 663 Californians and compared to a sample of 1,800 non-Californians (American adults living in the 47 other continental states). Findings from the nationwide survey were released in a July 2003 report entitled, “Internet Health Resources: Health searches and email have become more commonplace, but there is room for improvement in searches and overall Internet access.” This report presents information on three separate issues: low-income residents, Latino residents, and the health topics of particular interest to Californians.

Low-income Californians

Traditionally underserved populations, such as low-income residents, are the least likely to go online and are the most likely to lack or lose their health benefits. Even so, a recent study showed that access to Internet health resources can improve low-income individuals’ confidence in technology and help them take control of health care choices.³ Part of this report will focus on Californians who live in households earning \$30,000 or less annually.

“Low income” — respondents who say their annual household income is \$30,000 or less

It turns out that the digital divide is not as pervasive in California as it is in the rest of the country. And once they are online, this survey finds that low-income Californians are just as likely as those who earn more money to research at least one of 16 health topics online. This finding contrasts with the national survey, which shows that low-income

² California HealthCare Foundation, “California Consumers and Employers Respond to Changing Health Benefits.” (July 10, 2003)

³ “Study: Online health info empowers low-income individuals.” (iHealthBeat, August 1, 2003)

Americans in the rest of the country lag much farther behind in both Internet access and online health research.

There is evidence in this study that as more Americans go online and gain experience with the Internet, more people will benefit from health information searches, just as they do in California. Seven out of ten Californians, whether they are low-income or higher-income, say the Internet has improved the health and medical information and services they receive.

Latino Californians

California's high concentration of Latinos also presents a research opportunity. As the Latino population grows throughout the U.S., it will be important to understand how this group uses the Internet and interacts with the health care system. In California, as well as in the 47 other continental states, English-speaking Latinos are just as likely as non-Latino whites to have Internet access and to research one of 16 health topics online.

<p>“Latino” — respondents who say they are of Hispanic or Latino origin or descent, such as Mexican, Puerto Rican, Cuban, or some other Latin American background</p>

Health topics of interest to Californians

Finally, California often leads the nation in social, political, and economic trends.⁴ This report shows that Californian Internet users are using the Internet more than other Americans to research health insurance options, alternative medicine, and experimental treatments.

⁴ Fineman, Howard and Karen Breslau. “Total Recall: As goes California, so goes the nation. If true, we’re all in trouble. An economy on the ropes, and a political culture on the verge of collapse.” (Newsweek: July 28, 2003)

Part 2.

Low-Income Americans Buck the Trends

Low-income Americans are less likely to go online.

Any analysis of Internet health must start with a reminder that many tens of millions of Americans do not go online. And certain groups are less likely to have Internet access than others.

The Pew Internet Project has found that the U.S. Internet population — the percentage of Americans who use the Internet — has grown across the board since our first major survey about the digital divide in April 2000.⁵ At that time, 49% of American adults had Internet access. In the survey in the spring of 2002, 58% of Americans adults reported using the Internet. Between mid-2000 and mid-2002, every demographic group show increased in access. As the size of the U.S. Internet population has changed, the distance among some of the different population groups has narrowed. Still, for the majority of demographic groups, the size of the gaps between them has remained the same since 2000.

Overall, 42% of Americans do not use the Internet. And there remain clear differences in Internet use according to five demographic dimensions: race, income, educational attainment, community type (rural, suburban, or urban), and age. Whites are more likely to have access than African-Americans. High-income families are more likely to have access than less well-off families. People with college degrees are more likely to be online than those who have high school diplomas. Those who live in suburban and urban areas are more likely to have Internet access than those who live in rural areas. And those who are young are much more likely than those who are old to be online.

When we surveyed Americans in March-May 2002, 40% of whites said they do not use the Internet, as did 55% of African-Americans and 46% of English-speaking Latinos.⁶

Even at equivalent income levels, African-Americans are less likely than either whites or English-speaking Latinos to go online. Among those earning less than \$20,000 a year, 32% of whites are online, compared to 28% of English-speaking Latinos and 24% of

⁵ All digital divide analysis is excerpted from “The Ever-shifting Internet Population,” by Amanda Lenhart. (Pew Internet & American Life Project: April 16, 2003) Available at: <http://www.pewinternet.org/reports/toc.asp?Report=88>

⁶ The Pew Internet Project has changed the way it defines race since the 2000 report. Now, “white” is defined as “white, non-Hispanic” and “black” as “black, non-Hispanic.” Previously, our definitions of white and black included those of Hispanic or Latino ethnicity within them.

Part 2. Low-Income Americans Buck the Trends

African-Americans. Even in the upper-income levels, the gap remains. Of whites who live in households earning \$50,000 or more a year, 82% go online. By comparison, 65% of African-Americans who live in households earning \$50,000 or more a year go online, as do 82% of English-speaking Latinos.

Education level tells a similar story. Whites' and Latinos' online populations are 6 to 12 percentage points larger than African-Americans with similar education levels.

Isolated Americans

One-quarter of American adults are quite isolated from the Internet. They do not know others who go online and have not themselves dabbled with a browser. And 56% of non-users say they do not think they will ever go online. These people are generally part of the poorer, older segment of the not-online population, and are more likely to be white, female, retired, and living in rural areas.

This isolation from the Internet is especially perplexing since there has been considerable investment in putting Internet-equipped computers in libraries and schools in nearly every community in the U.S. Sixty percent of non-users over the age of 18 know of a place in their community where Internet access is publicly available, while 76% of adult Internet users know of public access sites. Most of those who know of local access points say those access points are easy to reach. The most frequently identified location of public access is a library.

Low-income Californians are more likely to be health information consumers than their counterparts in the rest of the country.

More Internet access

In contrast to the trends identified in the Pew Internet Project's digital divide reports, Californians living in households with less than \$30,000 annual income are significantly more likely to go online than their counterparts in the rest of the country.

In a special survey conducted by the Pew Internet Project in December 2002, 45% of low-income Californians report having access to the Internet, compared to 36% of low-income non-Californians (those living in the 47 other continental states). The survey found that 77% of Californians living in households with an annual income greater than \$30,000 have access to the Internet; 74% of non-Californians above that household income level are online.

Internet access is even more prevalent among low-income young people in California because of initiatives that encourage students to go online, even though their families are not as wired. A study by the San Jose Mercury News and Kaiser Family Foundation found that 96% of 10 to 17 year-olds in Silicon Valley have gone online, yet those living

Part 2. Low-Income Americans Buck the Trends

in households with incomes less than \$30,000 per year rely most heavily on Internet access at school. Only 22% of low-income students report having Internet access at home.⁷

More use of the Internet for health

When asked about specific health topics, it turns out that low-income Californians are also ahead of their counterparts in the rest of the country. Eighty-four percent of low-income Californian Internet users have searched for health information online – equal to the percentage of higher-income Californian Internet users (84%). A notably smaller percentage of low-income non-Californian Internet users – 77% – have searched online for at least one health topic. Eighty-four percent of higher-income non-Californian Internet users have searched for health information online – matching Californian Internet users’ rate of interest (83%).

Low-income Californians may have more reason to go online for health information – they are more likely than higher-income Californians to say they are in “only fair” or “poor” health. However, there is no statistically significant difference between income groups when it comes to seeing a doctor in the last 12 months – about three-quarters of all Californians did so.

Californians living in low-income households are more likely to be living with a disability or chronic illness		
Health status	Californians living in households with less than \$30,000 annual income (%)	Californians living in households with more than \$30,000 annual income (%)
A disability, handicap, or chronic disease keeps respondent from participating fully in work, school, housework, or other activities	19	6
Respondent reports excellent health	27	48
Good health	50	43
Only fair health	18	8
Poor health	4	1

Source: Pew Internet & American Life Project December 2002 Survey. N=663. Margin of error is ±4%.

Several California initiatives have used technology to promote access to health care and health services. Health-e-App is one state initiative that targets low-income families’ ability to access health care services online. Since 2001, with assistance from staff at community-based organizations and social service offices, low-income families have been able to enroll children and expectant mothers in California’s public health insurance

⁷ “Growing Up Wired: Survey on Youth and the Internet in the Silicon Valley.” (San Jose Mercury News/Kaiser Family Foundation: May 2003) Available at: <http://www.kff.org>

Part 2. Low-Income Americans Buck the Trends

programs, using an online application that is available statewide in English and Spanish. Enrollees can even choose providers and health, vision, and dental plans from online lists. Another statewide initiative provides online enrollment for publicly-funded breast and cervical cancer screening and treatment.

Californians of all income levels are essentially equal in their interest in all 16 health topics that we probed in our December 2002 telephone survey. Rich or poor, all Internet users are equally interested in information about a specific disease, a certain medical procedure, nutrition, and other health topics.

These numbers are especially striking since lower-income individuals are often less educated than their wealthier counterparts and most health Web sites require college-level reading skills.⁸ For example, according to the December 2002 survey, 39% of low-income Californians have only a high school education, compared to 17% of Californians who live in households making more than \$30,000 annually. Just 12% of low-income Californians have a college degree, compared to 40% of higher-income Californians. It is therefore encouraging to see that Internet health information is of interest to a growing number of Californians, in spite of their household income. In fact, a recent study showed that access to Internet health resources can improve low-income individuals' confidence in technology and help them take control of health care choices.⁹

The vast majority of online health seekers of all income groups say the Internet improves the health information and services they get.

Internet users report two effects of online health resources: better health information and services, and different (but not always better) relationships with their doctors. Seven out of ten Californians, whether they are low-income or higher-income, say that the Internet has improved the health and medical information and services they receive. Californians are in line with the rest of the country on this question – 73% of non-Californians report the same beneficial effects of going online for health information.

In an online survey, respondents were asked to give examples of how Internet health resources have been helpful or harmful. A patient from Los Angeles wrote, “I believe I make better use of the time allotted for my doctors' appointments. I get basic answers online and save the challenging questions for my doctors.”

Health-related email is one area where low-income Internet users lag behind their higher-income counterparts all across the country. In California, 23% of low-income Internet users have exchanged health-related email with a doctor, friend, or family member, compared to 36% of higher-income Internet users.

⁸ Berland, Gretchen K., et al., “Health Information on the Internet: Accessibility, Quality, and Readability in English and Spanish.” (Journal of the American Medical Association: May 23/30, 2001. Vol. 285, No. 20) Available at: <http://www.rand.org/publications/documents/interneteval/>

⁹ iHealthBeat, August 1, 2003.

Part 3.

English-Speaking Latino Californians Search for Health Information

The latest U.S. Census data shows that 34% of Californians are of Hispanic or Latino origin, compared to the national average of 13%.¹⁰ Fully 41% of Californians over the age of 5 speak a language other than English at home, whether it's Spanish, a dialect of Chinese, or another language.¹¹

Many Latinos and whites search for the same types of health information.

The December 2002 survey was conducted only in English and it shows that 58% of California's English-speaking Latinos have access to the Internet and are, for the most part, in good health.¹² By comparison, 63% of all Californians go online.

When it comes to health information, 78% of English-speaking Californian Latino Internet users have researched at least one topic online, which is below the average for all Californian Internet users (83%).

Health Topics Searched Online		
In all, 83% of California's Internet users have searched for information on at least one major health topic online. Many have searched for several kinds of information.		
Health Topics Popular with Both Whites and English-speaking Latinos	Californian Internet Users Who Have Searched for Info on It (%)	
	Latino	White
Specific disease or medical problem	56%	68%
Diet, nutrition, vitamins, or nutritional supplements	38	48
Exercise or fitness	36	36

¹⁰ U.S. Census Bureau: 2002 American Community Survey Profile for California and the U.S. Available at: <http://www.census.gov/acs/www/Products/Profiles/Single/2002/ACS/Tabular/040/04000US061.htm> and <http://www.census.gov/acs/www/Products/Profiles/Single/2002/ACS/Tabular/010/01000US1.htm>

¹¹ U.S. Census Bureau: 2002 American Community Survey Profile for California. Available at:

<http://www.census.gov/acs/www/Products/Profiles/Single/2002/ACS/Narrative/040/NP04000US06.htm>

¹² 80% of Californian English-speaking Latinos report their health as "excellent" or "good," compared to 84% of Californian non-Latino whites and 85% of Californian African-Americans.

Part 3. English-Speaking Latino Californians Search for Health Information

Alternative treatments or medicines	31	31
Health insurance	28	28
A particular doctor or hospital	19	23
Experimental treatments or medicines	18	26
Environmental health hazards	16	19
Depression, anxiety, stress, or mental health issues	17	17
Immunizations or vaccinations	13	15
Sexual health information	8	10
Medicare or Medicaid	8	7
Problems with drugs or alcohol	15	10
How to quit smoking	9	8
Health Topics More Popular with Whites	Latino	White
Certain medical treatment or procedure	34	51
Prescription or over-the-counter drugs	25	39

Source: Pew Internet & American Life Project December 2002 Survey. N=433. Margin of error is $\pm 4\%$.

English- and Spanish-speaking Latinos use the Internet differently for health.

Although the Pew Internet Project was only able to study English-speaking Latinos, the Center for Studying Health System Change completed a comprehensive bilingual national study in 2001 and can provide valuable insights about the Latino population. It turns out that English-speaking Latinos sought health information online at the same rate as non-Latino whites. However, Spanish-speaking Latinos were about half as likely to have looked for health information online.¹³ Therefore, when thinking about Latino Internet users, one must remember that a significant group is less likely to turn to online health information.

In addition, when both English-speaking and Spanish-speaking Latinos are accounted for, their health status drops to the lowest level of any ethnic group in California. A joint

¹³ Center for Studying Health System Change, September 2003.

Part 3. English-Speaking Latino Californians Search for Health Information

study by the UCLA Center for Health Policy Research and the Coalition for a Healthy California found that 28.7% of Latino adults report their health as “fair” or “poor,” compared with 13.0% of adult whites.¹⁴

The vast majority of online health seekers of all racial and ethnic groups say the Internet improves the health information and services they get.

All across the country, Latino Internet users are as likely as white Internet users to report that the Internet has improved the health and medical information and services they receive. In California, 74% of Latino Internet users say that, compared to 70% of white Internet users (not a statistically significant difference). In the 47 other continental states, 75% of Latino Internet users report improved health information and services, compared to 74% of white Internet users.

Health-related email presents an interesting example of a divide between white and Latino Internet users. Thirty-nine percent of white Californian Internet users have exchanged email with a doctor, friend, or family member to discuss a health issue, compared to just 21% of Latino Californian Internet users. Thirty-one percent of white non-Californian Internet users have exchanged health-related email, which is the same percentage of Latino non-Californian Internet users (31%).

¹⁴ Aguayo, Jennifer; E. Richard Brown; Michael A. Rodríguez; Lia Margolis, “Important Health Care Issues for California Latinos: Health Insurance and Health Status.” (UCLA Center for Health Policy Research and the Latino Coalition for a Healthy California: January 2003) Available at: <http://www.healthpolicy.ucla.edu/pubs/publication.asp?pubID=60>

Part 4.

Californians Are the Same, but Different

In general, Californians are in line with the rest of the country when it comes to Internet health search habits. Many of these nationwide trends are explained below – along with some interesting ways in which Californians differ from other Americans.

Searching for health information has continued to grow in popularity nationwide, even as Internet hype has waned.

In a national study conducted in December 2002, the Pew Internet Project found that 80% of Internet users (and 83% of Californian Internet users) have searched for information about at least one health topic. Many topics are popular all across the country – information about a specific disease, a certain medical procedure, or diet and nutrition, for example.

Like most American Internet users, Californians use the Internet to prepare for doctor's appointments or match symptoms with an illness. In an online survey conducted during the summer of 2002, the Pew Internet Project heard from a number of Californian Internet users:

- One mother living in California wrote, "I never go to the doctor without knowing something about my symptoms or my children's symptoms. I understand doctors know more medicine than I do but I know me and my kids better than they do... Getting me and my kids healthy is a joint partnership between our doctors and myself, not a monarchy or dictatorship."
- A woman from Rancho Cucamonga wrote, "I am MUCH more likely now to do background research on what a disease or problem is. I will consult with the doctor, but I am the one who is making the decisions."
- A woman from El Monte wrote, "I also take my searches re: meds and treatments to my doctor. It always gives him something to consider. I print up facts I find about medications which may or may not be harmful to me." On one occasion, her doctor prescribed a certain drug because she had found articles about it online. As she writes, "I don't think that [my doctor] would have mentioned it otherwise. He is curious about me now and wonders where I get all my information."

Part 4. Californians Are the Same, but Different

California's Internet users are significantly more likely than those in other parts of the country to research three topics online: health insurance, alternative medicine, and experimental treatments.

Health insurance

Thirty-one percent of online Californians have searched the Internet for information about health insurance, compared to 24% of the rest of the country's Internet users.

California is dealing with a health insurance crisis and residents may be turning to the Internet to collect information about how to get coverage. Indeed, a 2002 study by the California HealthCare Foundation found that Californians without employer-based coverage should compare prices and plans before choosing a health plan. The average price spread between the lowest- and highest-priced comprehensive HMO plans was 71% and was 17% for PPO plans with a \$1,500 deductible. Much of this pricing information can be found online.¹⁵

Latino and low-income Californians are particularly in need of good information about health coverage. According to a January 2003 UCLA report, 28% of Latinos in California are uninsured, compared to 9% of whites.¹⁶ And many of those who qualify for Medi-Cal and Healthy Families, part of California's social safety net for low-income residents, do not know of the program's existence.¹⁷ A national study by Forrester research shows that uninsured Americans are increasingly likely to go online to research health coverage information, so it is possible that trend could have an effect on California's uninsured population.¹⁸

Two state initiatives might be encouraging Californians to navigate the insurance system online. Governor Gray Davis established the new Department of Managed Health Care (www.hmohelp.ca.gov) to provide information about HMO quality, enforcement actions, and information about how to exercise one's rights as an HMO consumer. The second initiative, signed into law in 2002, requires HMOs to accept consumer complaints online.

Alternative and experimental treatments

Californians have always seemed to be on the cutting edge of many health trends. California's health insurers are increasingly providing access to massage therapy and acupuncture, for example.¹⁹ This study finds that Californians again lead the way when it comes to researching alternative and experimental treatments online.

¹⁵ "Trends and Analysis of Insurance Markets." (California HealthCare Foundation: November 7, 2002)

¹⁶ Aguayo, et al., January 2003.

¹⁷ Brown, E. Richard; Ninez Ponce; Thomas Rice; and Shana Alex Lavarreda, "The State of Health Insurance in California: Findings from the 2001 California Health Interview Survey." (UCLA Center for Health Policy Research: June 2002)

¹⁸ "Highlight: The Uninsured Are Not Technology Slouches." (Forrester Research: September 3, 2003)

¹⁹ See <http://www.hmohelp.ca.gov>

Part 4. Californians Are the Same, but Different

Health Topics Searched Online		
Health topics more popular in California	Californian Internet users (%)	Non-Californian Internet users (%)
Alternative treatments or medicines	33	27
Health insurance	31	24
Experimental treatments or medicines	23	17
Problems with drugs or alcohol	11	8
Health topics popular in all 48 continental states		
Specific disease or medical problem	64	64
Certain medical treatment or procedure	47	48
Diet, nutrition, vitamins, or nutritional supplements	47	43
Exercise or fitness	40	35
Prescription or over-the-counter drugs	35	34
A particular doctor or hospital	23	20
Environmental health hazards	20	16
Depression, anxiety, stress, or mental health issues	19	21
Immunizations or vaccinations	15	12
Sexual health information	11	10
Medicare or Medicaid	10	9
How to quit smoking	8	5

Source: Pew Internet & American Life Project December 2002 Survey. N=1,653. Margin of error is $\pm 3\%$.

Some 33% of online Californians have searched for alternative treatments, compared to 27% of the rest of the country's Internet users. Additionally, 23% of online Californians have searched for experimental medical treatments, compared to 17% of the rest of the country's Internet users.

In addition to the sixteen health topics detailed in the chart, respondents were asked if they had ever searched online for information about domestic violence. This is clearly a health-related topic, but since it is so sensitive, it was not included in the health section. Nine percent of Californian Internet users have ever searched online for information about domestic violence, compared to 8% of all Americans.

Part 5.

Implications for the Future

Information on the Internet is not a cure-all.

This report finds that California is unique in the United States when it comes to Internet access among low-income residents and overall interest in health information online. However, it is important to note that barriers still exist and the Internet is only part of a solution to the state and national health care crisis. Even if they do gain access to the Internet, inappropriately written text coupled with low literacy levels limit many Americans' ability to understand what is available online.²⁰ Additionally, a report published in the *New England Journal of Medicine* in June 2003 found that Americans receive only about half of recommended medical care.²¹ An educated consumer therefore stands a better chance of getting better treatment and the Internet can be a significant resource for that health education process. Online health information is almost a necessity, rather than a convenience, for consumers who are facing health decisions.

Low-income residents still lag behind higher-income counterparts.

Although California leads the nation in the percentage of low-income residents who access the Internet (45%, compared to 36% in the 47 other continental states), a majority of low-income residents still does not go online. And while low-income Californians may be just as interested in health information as higher-income residents, they have to rely more heavily on public Internet access points, such as libraries and community centers, which often don't provide the privacy necessary for personal health searches.

Spanish-language health sites must be improved and promoted.

This study finds that English-speaking Latinos in California are highly attuned to the Internet when it comes to health information, but there is room for improvement in their searches for information about a certain medical treatment or certain drugs. And the gap is even wider between English and Spanish speakers – those who speak only Spanish are at a great disadvantage when it comes to both Internet access and access to Internet health information.

²⁰ Baur, Cynthia. "The Internet and Health Literacy: Moving Beyond the Brochure." In Schwartzberg, J.G., J. VanGeest, C.C. Wang (Editors). *Understanding Health Literacy: Implications for Medicine and Public Health*. (Chicago: AMA Press, 2004.)

²¹ McGlynn, Elizabeth A., Steven M. Asch, John Adams, Joan Keesey, Jennifer Hicks, Alison DeCristofaro, and Eve A. Kerr. "The Quality of Health Care Delivered to Adults in the United States." (*New England Journal of Medicine*: June 26, 2003 – Vol. 348, No. 26.)

Part 5. Implications for the Future

A 2001 Rand/California HealthCare Foundation study focused on four common medical conditions – breast cancer, childhood asthma, depression, and obesity – then evaluated the content on 18 English-language and seven Spanish-language health Web sites.²² Twenty-five percent of basic elements of clinical information were not covered by the English-language sites. Fifty-three percent of basic elements of clinical information were not covered by Spanish-language sites. The researchers also evaluated 10 English-language and four Spanish-language search engines. Users of an English-language search engine have a one in five chance of finding relevant health information on the first page of results. If they visit a Spanish-language search engine, users have just a one in nine chance.

The recommendations outlined in that 2001 study hold true today: Spanish-language sites must be improved so that high-quality, accessible, and reliable health information is available on all Internet health sites.

Health care benefits are changing and the Internet can help keep people informed.

Many Californians are facing cutbacks in their health care coverage and rapidly rising costs. This study finds that California's Internet users lead the nation in their online searches for health insurance information. Policymakers, advocacy groups, and business groups would do well to make sure all consumers have access to this comparison data, whether online or offline, and that the information is easy to understand and reliable.

²² Berland, 2001.

Methodology

This Pew Internet & American Life Project report is based on the findings of a daily tracking survey on Americans' use of the Internet and an online survey about Internet health resources.

Telephone interviews were conducted by Princeton Survey Research Associates between November 25 and December 22, 2002, among a sample of 2,038 adults, 18 and older. For results based on the total sample, one can say with 95% confidence that the error attributable to sampling and other random effects is plus or minus 2 percentage points. For results based on U.S. Internet users (n=1,220) the margin of sampling error is plus or minus 3 percentage points. For results based on California residents (n=663) the margin of sampling error is plus or minus 4 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.

The sample for this survey is a random digit sample of telephone numbers selected from telephone exchanges in the continental United States. The random digit aspect of the sample is used to avoid "listing" bias and provides representation of both listed and unlisted numbers (including not-yet-listed numbers). The design of the sample achieves this representation by random generation of the last two digits of telephone numbers selected on the basis of their area code, telephone exchange, and bank number.

New sample was released daily and was kept in the field for at least five days. This ensures that complete call procedures were followed for the entire sample. Additionally, the sample was released in replicates to make sure that the telephone numbers called are distributed appropriately across regions of the country. At least 10 attempts were made to complete an interview at every household in the sample. The calls were staggered over times of day and days of the week to maximize the chances of making contact with a potential respondent. Interview refusals were re-contacted at least once in order to try again to complete an interview. All interviews completed on any given day were considered to be the final sample for that day. The overall response rate was 32.8%.

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 vary also on questions of substantive interest. In order to compensate for these known biases, the sample data are weighted in analysis. The demographic weighting parameters are derived from a special analysis of the most recently available Census Bureau's Current Population Survey (March 2001). This analysis produces population parameters for the demographic characteristics of adults age 18 or older, living in households that contain a telephone. These parameters are then compared with the sample characteristics to construct sample weights. The weights are

Methodology

derived using an iterative technique that simultaneously balances the distribution of all weighting parameters.

An online survey consisting of twenty questions was hosted by Princeton Survey Research Associates. Respondents were primarily recruited from announcements posted on Braintalk.org (hosted by the Department of Neurology, Massachusetts General Hospital); ACOR.org (the Association of Online Cancer Resources); DrGreene.com (a pediatric Web site); and on the Pew Internet Project's own [site](#). An announcement was also printed in a syndicated newspaper column entitled "[The People's Pharmacy](#)." In addition to the "official" announcements, individual Internet users posted links to the survey in a multitude of personal emails, listserv discussion groups, and other health-related Web sites.

Respondents were invited to complete the multiple choice questions and most used the open-ended text boxes to provide more detail. In all, 1,971 individuals' responses were collected and transmitted to reviewers as three spreadsheets. Follow up interviews with 19 respondents were completed via email.