

Health information on the Net

by Kathryn Stevenson

The office was busy and you didn't catch everything the doctor was saying. On the way home, you remembered all the questions you forgot to ask, and wondered what else there was to know about this condition. With no medical reference text on the bookshelf, you turn to the Internet — the latest tool for the health care consumer. You type the name of the illness into the search engine and within minutes you have an almost overwhelming volume of information from a variety of web sites.

Some Canadians turn to the Internet to find out more about a specific disease, while others use it to self-diagnose or to look for the latest diet regime. While, traditionally, people have used libraries and medical books to enhance their knowledge of health and medicine, the advent of the Internet presents a new means of acquiring information. And the more popular the Net becomes, the more likely people will be to use it as a search vehicle for the latest details on a variety of topics, including medical conditions, alternative treatments and experimental cures.

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What you should know about this study

Data in this article come from the 2000 General Social Survey (GSS) on access to and use of information communication technology and the Household Internet Use Survey (HIUS) from 1997 to 2000. The 2000 GSS collected detailed information about individuals' use of technology. Over 25,000 respondents aged 15 and over living in private households in the 10 provinces were interviewed. The survey asked questions about using the Internet for health information, types of information sought, web sites visited, and overall satisfaction with the information. The HIUS, first conducted in 1997 to measure the adoption of Internet services by Canadian households, collected data from approximately 34,000 private households in the 10 provinces. A question was included on using the Internet to search for medical or health information.

Along with a wealth of other subjects, health and medical information is readily available on the Internet. Who is most likely to search the Net for health-related topics? What sorts of health information are Canadians looking for and where exactly are they looking? And is the information they find credible?¹ Using data from the 2000 General Social Survey (GSS) and the Household Internet Use Survey (HIUS) for the 1997 to 2000 period, this article explores some of these questions.

Nearly half of Net users have searched for health-related information

Health and medical information was the third most popular topic people searched for in 2000, following window shopping (information on

products and services) and news. Six million Canadians, or 46% of Internet users aged 15 and over, searched the Net for health or medical information; 3.4 million individuals had searched at least once a month in the previous year. Over time, use of the Net for health topics grew dramatically: between 1998 and 2000, the number of households looking for health-related information on the Internet increased by over 146% to 2.7 million. The growth of this group now

1. World Health Organization. 1999. *Medical Products and the Internet: A Guide to Finding Reliable Information*. www.who.int/medicines/library/qsm/who-edm-qsm-99-4/medicines-on-internet-guide.html (Accessed May 6, 2002.) Geneva; "The web of information inequality." *The Lancet*. 1997. 349: 9068.

outpaces by far the overall growth in the number of Internet users (83%).²

Most people surfing the Internet for health-related topics are regular Net users.³ Among those who searched online for health information, more than 60% used the Internet at least once a month, while 8% did so at least weekly. Women were more likely to look for health topics than men: 52% compared with 41%. This is not surprising given that women generally use health care services more often than men; women also tend to be more interested in health issues.⁴ Searching for this type of information was common to Canadians of all ages, with the exception of young adults. Men in the 15- to 24-year age group were the least likely to try to find answers to health and medical questions; just over one-quarter had done so in the previous year.

Households with children are far more likely to search the Net for health information than other types of households. Among those households searching online for health-related topics, 18% had a child or children under age 5, 26% had children between 6 and 12 years and 22% had teenagers. The remaining one-third was divided among singles, couples without children and multi-family households without children.

Health care workers most likely to search the Net for health information

Health care workers⁵ have a higher than average rate of Internet use: 59% of health care workers use the Net compared with 53% of all paid workers. Not surprisingly, they are also more likely to search for health-related information; in fact, about 7 in 10 of Internet users employed in the health care sector had done so.

As health care workers take to the Net, elements of Canada's health care system are also moving online. Governments at all levels have invested in

more than 200 information and technology initiatives across Canada.⁶ These include remote diagnosis, health promotion and education, and training of health care professionals.

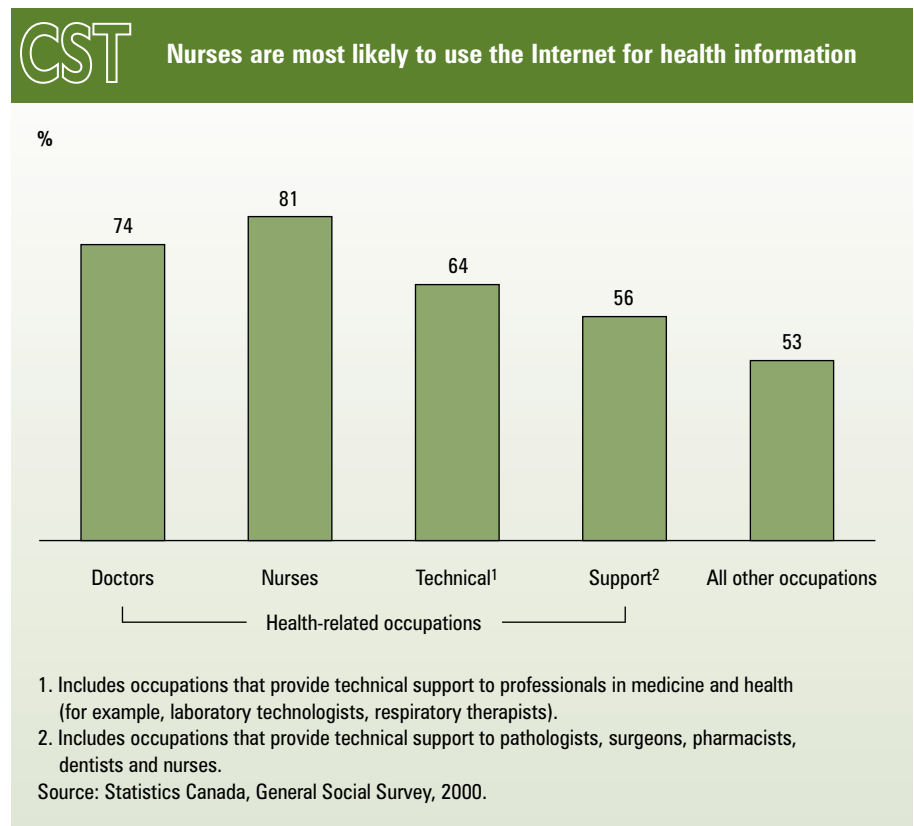
Health care associations have also developed web sites to make up-to-the-minute information available on the Internet. The Canadian Medical Association web site (www.cma.ca), for example, provides physicians with

links to the latest medical journals and offers a specialized search service.⁷

Health searchers look for information on specific diseases

From the countless medical and health topics available on the Net, Canadians most often chose to access the particulars of specific diseases. More than half of those (52%) looking for health information on the Net

2. Because earlier data are not available for individuals, household use must be examined to get a sense of change over time.
3. For information on the relationship between socio-demographic characteristics and general Internet use, see the Winter 2001 issue of *Canadian Social Trends*.
4. Health Statistics Division. 2000. "Taking risks/taking care." *Health Reports: How Healthy Are Canadians?* (Statistics Canada Catalogue no. 82-003) 12, 3: 11-20.
5. Health care workers include doctors, nurses, technicians and those in occupations supporting health care.
6. Federal/Provincial/Territorial Advisory Committee on Health Infostructure. December 2000. *Blueprint and Tactical Plan for a pan-Canadian Health Infostructure: A Report on F/P/T Collaboration for the Planning of the Canadian Health Infostructure*. Health Canada [online]. www.hc.sc.gc.ca/ohih-bsi/pubs/2000_plan/plan_e.html (Accessed May 6, 2002.)
7. Green, Deirdre. 2001. "A textbook case for online searching." *Canadian Medical Association Journal* 164, 7: 1034 [online edition]. www.cmaj.ca/cgi/content/full/164/7/1034-b (Accessed May 6, 2002.)



searched for new research, diagnosis and treatment options for specific illnesses. Web sites highlighting lifestyle issues, such as diet, nutrition and exercise were also popular (28% of health searchers), as were web tools to match symptoms with specific illnesses or diseases (23%) and web sites that provide information on drugs and medication (20%).

What sites do people visit?

The 2000 GSS asked people about the types of web sites they looked to for health information. Respondents were asked to choose from a list, which included sites run by governments, professional health care associations, non-profit groups, businesses and universities. Overall, people reported visiting all these —

from commercial sites set up by pharmaceutical companies to ones run by governments and non-profit organizations — in similar proportions.

People use the Internet to search for the same types of information for which they had traditionally looked to a medical reference book. Unlike books, however, few web sites are transparent in terms of identifying their sources and their sponsoring or sanctioning organization. Not all web sites are created equally or with the intent of providing unbiased information to the public. While promoting well-being and providing education on health topics are common on the Internet, so too are selling questionable products and advocating experimental treatments with no proven value.⁸

Some topics are easy to find, while others may take much searching

Web sites that receive a lot of hits may be a testament to how well organized and easily navigable they are. Many visits may also reflect a level of trust in an organization and a belief that consumers will find reliable information. When looking for information on the Canadian health care system, 41% of individuals searched Health Canada's web site, while 35% visited professional health care associations, such as the Canadian Medical Association.⁹

While learning about Canada's health care system is therefore fairly simple, knowing where to look for other health-related issues is not as evident. For example, people trying to find information on surgeries searched Health Canada (36%), professional association (31%), business (31%) and university (32%) web sites. While the topic of surgery covers many areas of health care — ranging from the actual procedure to levels of insurance coverage — the many sites visited suggests that finding some types of information takes more time and effort than finding others.

Surfing the web for alternative therapies

Potential for misinformation can increase when people look outside the established health care sector. Two-thirds of individuals searching for alternative therapies reported accessing a site not on the list provided by the survey. They may have done so because the alternative treatment they were looking for was not included on any of the traditional health care sites. The promotion of, and interest in, alternative therapies is not a new phenomenon; the Net simply provides an inexpensive, quick and

| CST Internet users ¹ search for all kinds of health information... | |
|---|---------------------------------|
| Type of health content | Users of online health topics % |
| Diseases | 52 |
| Lifestyle | 28 |
| Analysis of symptoms | 23 |
| Drugs | 20 |
| Alternative medicine | 12 |
| Surgeries | 7 |
| Health care system | 7 |
| ... on all types of sites | |
| Type of site visited | |
| Health Canada sites | 24 |
| Commercial sites | 21 |
| Professional health associations | 17 |
| Non-profit health organizations | 17 |
| Universities | 16 |
| Other government sites | 11 |
| Other | 7 |

Note: Totals do not add to 100 as respondents were asked to mark all categories that apply.
 1. Internet users refer to those who have ever used the Net for health information.
 Source: Statistics Canada, General Social Survey, 2000.

8. World Health Organization. 1999. op.cit.

9. Respondents were asked to mark all categories that apply.

Millions of web sites contain medical and health-related information, but which ones are credible? Governments have undertaken a number of initiatives to help Internet users navigate through the sea of information. In the United States, the American Accreditation Health-Care Commission is an independent agency that awards seals of approval to health-related web sites that meet strict criteria.¹ The World Health Organization (WHO) has submitted a proposal to create a new top-level domain, *.health*. Under this plan, WHO would distribute the *.health* address to web sites meeting its standards.²

In Canada, the Canadian Health Network, sponsored by Health Canada, offers links to recognized associations, non-profit companies and government sites. The Canadian Health Network also provides this checklist to help Internet users evaluate health information on the Net:³

1. Is the author's name (or organization responsible) clearly stated?
2. Is there potential for bias or conflict of interest?
3. Are commercial links and/or sponsorships clearly stated?
4. Does the site offer a clear statement that health information should not be taken as health advice or a substitute for visiting a health professional?

1. "Health organization approves 13 web sites." December 13, 2001. www.cbc.ca/cgi-bin/templates/view.cgi?category=Consumers&story=/news/2001/12/13/Consumers/HealthWebsites_011213 (Accessed May 6, 2002.)

2. "WHO proposal would raise quality of Internet health information: Dot health could soon be as well known as dot com." Press release WHO/72. November 13, 2000 (online). www.who.int/inf-pr-2000/en/pr2000-72.html (Accessed May 6, 2002.)

3. www.canadian-health-network.ca/html/help/checklist1.html (Accessed May 6, 2002.)

even anonymous way for individuals and organizations to publicize their products and services and for consumers to access non-traditional remedies at the touch of a button.

Some Internet users — possibly those who just used search engines — reported not knowing what site they were looking at when they found new information. When asked about the list of sites they used to find out more about health concerns, just over 80,000 Canadians said they didn't make note of them.¹⁰ At the same time, over half of Net health searchers

reported that the health information they found was very useful. This raises concerns about the spread of false advice and the potential for harm when people make decisions for themselves and their families.

Summary

Canadians have embraced the Internet and with it the opportunity to take a greater role in managing their health, and to become better-informed consumers. With six million Net users searching for health or medical information, the Internet has

established its role in supporting health care. However, not all Canadians are equally likely to take advantage of this new source. Women tend to search for health issues online more than men and households with children are more likely to do so than those without. Canadians who do go online are most likely to look for information on specific diseases.

At a cursory glance, the Internet is just another reference tool, as medical books have been for decades. What is different is that just about anything can be presented as health information; uncertified content multiplies almost daily. Although many steps are being taken to provide consumers with tools to evaluate health-related web sites, it remains difficult to distinguish between "good" web sites and "bad" ones. The challenge for the consumer, the health care sector and policy makers is to navigate through this endless volume of material and separate the authentic from the false.

10. No direct question was asked. This 80,000 includes respondents who replied "just search with key words", "used search engine" or "didn't notice what type of web site it was".



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