

Results of the 10th HON survey on health and medical Internet use

Natalia PLETNEVA^a, Sarah CRUCHET^a, Maria-Ana SIMONET^a, Maki KAJIWARA^a,
Célia BOYER^a

^a *Health on the Net Foundation, Geneva, Switzerland*

Abstract. The Internet is increasingly being used as a means to search and communicate health information. As the mission of Health on the Net Foundation (HON) is to guide healthcare consumers and professionals to trustworthy online information, we have been interested in seeing the trend of the attitudes towards Internet use for health purposes since 1996. The article presents the results of the 10th HON survey conducted in July-August 2010 (in English and French). It was hosted on the HON site with links from Facebook and Twitter and from HONcode certified web sites. There were 524 participants coming mainly from France (28%), the UK (18%) and the USA (18%). 65% of participants represented the “general public”, while the remaining 35% were professionals. Information quality remains to be the main barrier users encounter while looking for online health information; at the same time, 79% believe they critically assess online content. Both patients and physicians consider the Internet to be helpful in facilitating their communication during the visit, although professionals are more of sceptics than the general public. These results justify the continuing efforts of HON to raise public awareness regarding online health information and the ethical quality and transparency issues, and to educate and guide users towards trustworthy health information.

Keywords Survey, Health information, Quality, Internet

Introduction

In the whole period of its existence, the Internet has been used for health purposes, and the trend is growing steadily. The Pew Internet & American Life Project (USA) estimated that in 2008, 83% of Internet users looked for health or medical information.. According to Harris Poll (USA, 2010) the percentage of all people who have searched at least once for health or medical information online has increased from 27% to 76% from 1998 to 2010 (and of “online” adults from 71% to 88%). Those who do it sometimes or often (on average 6 times a month) increased from 42% to 73%. Empowered healthcare consumers also use the Internet to communicate with peers and health professionals.

At the same time, users’ scepticism is growing, and the demand for high quality information is increasing. For example, in the USA, among those looking for health and medical information online, the number dissatisfied with their search results (from 6% to 9% in last five years) or on the reliability of information (from 5% to 8% in last five years) has been increasing (Harris Poll, 2010).

The Internet also influences doctor-patient relationships. Doctors remain to be the most significant and most valuable source of information for patients. In France, patients prefer asking doctors rather than the Internet (89% vs. 64%) (2010). The Health Engagement Barometer Study (2008), conducted worldwide, revealed that 88% of respondents turn to their physicians to validate online information, but at the same time, the equal number (88%) turn to other sources to validate information from their doctors.

As mission of Health on the Net Foundation (HON) is to guide the growing community of healthcare consumers and providers on the World Wide Web to sound, trustworthy medical information and expertise, we have been interested in seeing the trend of the attitudes towards Internet use for health purposes since 1996. In the article the results of the 10th survey are presented.

1. Method

HON surveys use non-probabilistic sampling and cannot ensure that participants are representative of the entire medical and health information-user community on the Internet. The survey was hosted on the HON web site in English and French during July to August 2010. The survey was open to anyone accessing the HON web page its Facebook and Twitter accounts. It was also promoted through HONcode-certified web sites. The participants included general healthcare consumers (including patients) and healthcare professionals.

The questions had different answers scales. The first one was “Yes”, “No”, “Maybe.” The second one was numbers (frequency or length of use). The third one required an answer on the “-4”-“+4” scale. For such questions we summed up the results into 3 groups: “disagree”/“rarely” (-4, -3, -2), “neither agree/often nor disagree/rarely” (-1, 0, +1) and “agree”/ “often” (+2, +3, +4). If two out of three groups of results were distributed equally (i.e. disagree 12%, neither 43% and agree 45%), we used “would rather agree (12% disagree)”, and vice versa. We mentioned the comparison with the results of 2005 only where the difference between 2005 and 2010 findings was more than 10%.

2. Results

2.1. Who is searching and for whom? When, where and what is being searched?

More than 500 participated in the survey (524). 65% filled the questionnaire in English and 35% in French. 65% were individuals, patients, patients’ associations’ members (later “citizens”/“patients”) and 35% were health and medical professionals (later “professionals”, “doctors”).

Compared with the 2005 version, there were more female participants (65% vs. 50% in 2005). Most of the participants were aged 20-59 with the most active group those aged 30-39 (30%). Overall the representatives of 60 countries around the world filled the questionnaire, most coming from France (28%), the USA (18%) and the UK (18%).

On average, the respondents used the Internet for 7 or more years (79%) (in 2005 44%). 96% of users spent time checking and writing emails and 93% browsing web. 60% read newsletter and online communities (28% in 2005) and 51% participated in online communities (23% in 2005). It shows the growing popularity of web 2.0 services.

Participants looked for health information for themselves (77%), their children (32%), and patient and spouse (25%), friend (24%) and relative (23%).

In 79% of cases a web search was the starting point to clarify medical information, the frequency of search engines use has increased from 86% in 2005 to 94% in 2010. Secondly, the web sites on specific health topics were listed (73%), and thirdly there were links from health web sites (66%). The importance of web sites suggested by a healthcare provider increased from 31% in 2005 to 43% in 2010. Specialised search

tools as HONselect have lost some popularity (29% in 2010 vs. 52% in 2005). Majority (61%) visited two to five web sites and 25% checked up to 10 sites.

44% of users searched for health information more than three times “during the past week,” 25% were doing it slightly less frequently (two to three times). We found no correlation between time of search and consultation with a healthcare provider.

Out of all web sources of health information, the most popular were: medical journals or publishers (85%), hospitals (77%), universities and governmental agencies (76%) and non-commercial medical organizations (74%). Over the last 5 years the importance of hospitals as a source of online health information has significantly increased from 60% to 77%.

People mostly searched for disease description (69%) and medical literature (62%). Other topics included: clinical trials (28%), patient community (24%), alternative medicine (22%), support groups (19%), weight loss (17%) and others (26%).

Regarding medications, citizens mostly searched for drug side effects (60%), safety (54%) and efficacy (52%). Over the last five years there were fewer searches on drug interactions (from 59% in 2005 to 47% in 2010). Generic drugs and information regarding herbal or alternative treatments were frequently searched by 37% of citizens. Patients participated in the survey rarely bought prescription (80%) or OCT (72%) drugs via the Internet. Both indicators have increased since 2005 (65% and 63% retrospectively).

2.2. Difficulties of online health search

We have asked participants on the difficulties they face searching for online health information. For each barrier a scale from -4 to +4 was offered.

Access to reliable medical information was perceived important by English- (96%) and French- (76%) speaking citizens. At the same time, information quality remained to be the main barrier users encounter while looking for health information online (80%). Among others, significant barriers were medical data privacy (54%) and Internet connection speed (dropped from 62% to 45% in last 5 years). Inadequate tools and applications, lack of time and lack of support for Internet in office setting also created obstacles in health-related Internet search though were considered less important. Internet training was not considered as an obstacle anymore by 47% of respondents (in 2005 for most of participants it was still an obstacle, only for 34% it was not a barrier).

Among the most valuable factors improving the quality of information and service for users of a health related web site were:

- Trustworthiness/credibility – 96%
- Accuracy and availability of information – 95%
- Ease of finding information/Navigation – 93%.

Information transfer-rate (74%), privacy (73%), accessibility in terms of language and physical impairment (69%) and scientific complexity of information (59%) played a less important role. Commercialisation/advertising and sponsorship were not considered as the factors to enhance the quality (from 31 to 42% in 5 years), neither were spam (44%) and Pay-to-view/Pay-for-use information or services (42%).

Most of citizens (78%) preferred to have the option of seeking complex medical information, especially the French-speaking ones (91%). 57% considered the consumer web sites to often be superficial.

What domains did the users trust? Not surprisingly, .edu (70%), .gov (69%) and .org (65%) remained among the most credible ones. The domain .com was considered neither credible nor non-credible by 52% of respondents. National domains have gained more trust among French-speaking participants (64%) compared with the English-speaking ones (19%). In fact, it might be dangerous because .fr domain can be

used by a miraculous organization or an organization which is not based in France, and this may mislead the users considering the domain .fr to be as trustworthy as .gov for example.

Who should be responsible for information quality? Majority of the respondents thought quality should be ensured by associations representing non-profits, international (72%) and national (71%) health web site developers and NGO (69%). For the last 5 years, the importance of NGOs has significantly increased from 46% to 69%.

79% believed they critically assessed health information online and 83% stated they verified whether the web site was trustworthy or not by checking the source of information (88%), motivation (68%), URL (commercial or not) (66%) and significantly less, the sources of funding (55%). However, only 13% of users thought their family and friends verified the trustworthiness of the web sites, while most of them remained undecided. Upon conducting a web search, 49% stated they were not anxious and 75% did not consider themselves cyberchondriacs. Majority (74%) of the respondents said they were aware that the ranking of the search results could have been manipulated by commercial interests..

The HONcode seal was the most recognized trust mark (50%) among the participants of the survey. Apparently, as most of them were redirected from the HONcode-certified web sites, it made the result biased. There was a significant difference between English-speaking (41% know HONcode seal along with Good House Keeping (36%)) and French-speaking respondents (67%) due to the HON-HAS collaboration (La Haute Autorité de santé, French National Authority for Health). 76% thought that web sites containing health content and of hospitals should be always certified. 66% considered it appropriate also for physicians' web sites and 46% - for the web sites selling medical software.

2.3. Doctor-patient relationships, perspectives from both sides

Both citizens and professionals were asked whether they discuss the results of Internet search with their doctor. 53% of citizens who participated in the survey declared they do. As for the professionals, 62% said they engaged in such communication (75% of English-speaking and 47% of French-speaking).

Those who discuss thought that overall, the effects on patient were positive: it helps the patient to become more knowledgeable and better partner with his/her physician, improves communication between the patient and physician, and encourages people to fight against their disease. However, doctors were less enthusiastic than patients and thought it also increased the risk of patient self-treatment (more than patients thought of it) (Figure 1).

At the same time, for some answers we could not reach a certainty. For example, both professionals and patients would rather agree that it increases adherence to a physician's advice (22% and 11% disagree retrospectively) and to a degree that a patient would follow physician instructions on taking prescribed pharmaceuticals (12% and 15% disagree retrospectively). The most controversial issues turned out to be (1) whether it fosters more patient mistrust and (2) whether it encourages patients to challenge a physician's authority. With the first one the patients would rather disagree (17% agree) as though physicians would rather agree (21% disagree) and with the second one, patients remain completely undecided as only 14% of doctors disagree. Comparing all these findings with the ones of 2005 we can conclude that both doctors and patients have become more critical by 2010.

80% of citizens kept thinking that a healthcare provider should suggest trustworthy sources. 72% of the professionals agreed it would be helpful for them to provide patients with such information (in 2005, only 59%). Most of the physicians would use a trustworthy online service that allows them to suggest web sites to the patient,

especially if it is free for the patient (87%). However, so far 78% of patients said healthcare providers had never given them such information.

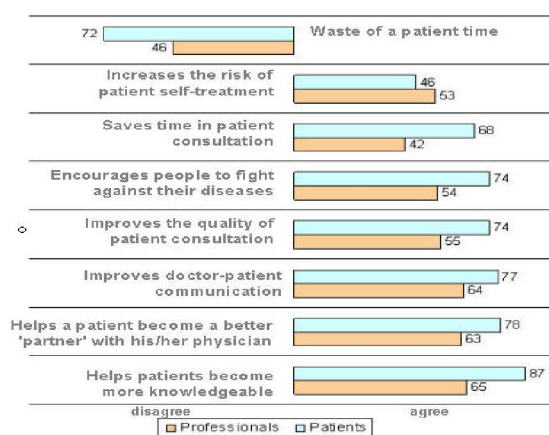


Figure 1. Influence of Internet on doctor-patient communication.

3. Discussion

The survey findings justify that users are becoming more critical and less satisfied with the quality of online health information. Their worries have solid bases as there is a huge amount of misleading information. Majority of survey respondents recognised this problem and believed they critically assessed online health information.

However, we must admit the findings express the opinions of probably the most empowered Internet users. Although more than 500 answers cannot represent all points of view, we believe the results justify the continuous efforts of HON, physicians and the health web site webmasters to increase public awareness of quality issues. First, we need to create more awareness among Internet users promoting reliable tools for healthy online surfing. Secondly we have to educate both the general public and health professionals. In the same direction, the UK Nuffield Council on Bioethics has released a report urging physicians to take part in the guidance of patients also for health and Medical online content. Medical students and practicing doctors can have such courses as a part of their curriculum. We believe that a similar course should be created for the patients in Internet settings meeting their needs and adjusting their background with use of evaluation mechanisms. And thirdly, patients and doctors need a communication tool which would be easy to use, allowing saving time during consultations, decreasing professionals' workload, and providing patients with trustworthy sources to avoid absorption of misleading information.

References

- [1] Pew Internet & American Life Project. Trend Data, Online Activities Total <http://www.pewInternet.org/Static-Pages/Trend-Data/Online-Activites-Total.aspx>
- [2] The Harris Poll "Cyberchondriacs" on the Rise?, August 2010 <http://www.harrisinteractive.com/vault/HI-Harris-Poll-Cyberchondriacs-2010-08-04.pdf>
- [3] Vers une meilleure intégration d'Internet à la relation médecins-patients. Ordre National de Médecins 06/05/2010 <http://www.conseil-national.medecin.fr/article/vers-une-meilleure-integration-d%E2%80%99internet-la-relation-medecins-patients-982>
- [4] Health Engagement Barometer Study (2008) http://static.edelman.com/wwwedelman/healthengagement/docs/Edel_HealthBarometer_R13c.pdf
- [5] Nuffield Council on Bioethics <http://www.nuffieldbioethics.org/personalised>. Doctors should receive training and advice on caring for patients who use the internet to access information about diagnosis and treatment