

Data, analysis, perspectives | No. 2, 2018

# Health Information

Seek and you shall find –  
patients satisfied with Dr. Google

- **The internet fulfills a variety of needs:** Patients turn to the internet not just for facts; they also seek assurance, consolation, interaction and diversion
- **Satisfaction with Dr. Google:** Some 52 percent of patients who use the internet to address questions of health are satisfied with the result
- **Strategic behavior:** Almost one-in-three patients does not disclose previous online searches for health information to physicians
- **No credibility bonus for non-commercial services:** Publicly funded websites are not rated as more trustworthy than commercial websites
- **Physicians too reticent:** Only 20 percent of physicians encourage or instruct patients to search the internet for health information

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Increasing numbers of people are searching for health information on the internet. At the same time, the supply of information continues to grow and become more diverse. Providers of health information include publishing houses, health insurance funds and other insurance providers, as well as hospitals, self-help groups, public institutions, foundations, and private individuals in their capacity as bloggers, YouTubers or members of forums. A broad spectrum of providers serves the market.

It is often claimed that medical and health information on the internet is of poor or at least dubious quality; that patients are overwhelmed by it and either get lost in a maze of information or even become hypochondriacs. It is not only consumer associations that express skepticism – representatives of physicians are, almost by tradition, detractors of health information on the internet. Nevertheless, "Dr. Google" is more popular than ever. Is there anything to the criticism?

« Physicians hate informed patients. You should never directly indicate everything that you've read. However, I try to frame my questions in such a way that things go in the right direction. »

« The internet is a source that you can ask everything you don't ask your physician. »

The Bertelsmann Stiftung has analyzed how patients obtain information online about health problems and illnesses. Do they really not trust their physicians, or trust them too little? The fact of the matter is that 58 percent of patients seeking health information on the internet do so before visiting a physician, and 62 percent do so afterwards.

On behalf of the Bertelsmann Stiftung, psychologists from the rheingold institute conducted 36 in-depth interviews on how patients in Germany search for information on the internet, and how they then use this information. This qualitative analysis is supplemented by a representative

survey of residents in Germany. Both studies on behavior relating to health information focus on the following questions:

- › What do patients search for with Dr. Google, and why?
- › How satisfied are patients with the results of searches?
- › Which sources do patients use; which do they consider trustworthy?
- › Does patient satisfaction with their physicians have an impact on their own research?
- › What kind of reactions do patients who obtain prior health information online perceive from their physicians?

The results reported in this Spotlight Healthcare show that most patients find what they are looking for. However, the online information-related

## Methodology

**1. In-depth interviews:** In two-hour interviews, the rheingold institute surveyed 18 women and 18 men aged between 16 and 78 on how they search for health information. Their health problems ranged from acute, minor conditions or non-specific symptoms (n = 10), to chronic, minor conditions (n = 10), to acute, serious conditions (n = 8), to chronic, serious conditions (n = 8). Two to three months before the interviews, the subjects made use of at least two of these sources: physician, pharmacist or other specialist – internet – print media, magazine, brochures – TV, radio, media center, YouTube or podcasts. All quotes in this Spotlight Healthcare come from these interviews.

**2. Telephone survey:** Using computer-assisted telephone interviewing (CATI), Kantar Emnid surveyed 1,074 people aged between 18 and 80. The sample, weighted according to age, sex, level of education, household size, region and whether they were employed (yes/no), is representative of the population for the period from 13 October 2017 to 26 October 2017.

behavior of patients and the physician–patient relationship have a mutual impact on each other. Dissatisfaction can be seen from both the physician and the patient perspective. The interaction between Dr. med and Dr. Google seems to be in need of improvement.

### Satisfaction with Dr. Google

Half of online Germans get information on the internet on health issues at least once a month. Some 16 percent do so at least once a week. The current representative survey on behalf of the Bertelsmann Stiftung shows that these individuals mainly use Wikipedia and other online encyclopedias. These online resources are closely followed in terms of usage by the websites of health insurance funds and health portals such as NetDoktor, Onmeda and gesundheit.de. The websites of hospitals and long-term care facilities, as well as online communities, are also commonly visited. There is significantly less demand for the websites of independent patient and self-help organizations, as well as for online medical consultation (see Figure 1).

Some 52 percent of those obtaining information on the internet on health issues are “usually satisfied” or “always satisfied” with the results, and an additional 44 percent are at least “somewhat satisfied.” None of those surveyed reported that they were “never satisfied,” and only three percent reported that they were “rarely satisfied” (see Figure 2).

### Good supplement to the general practitioner

Some 49 percent of the internet users in the representative survey regard online research as a good supplement to the advice of their physician. This is despite the fact that 65 percent report that trustworthy information is difficult to recognize, and that half of those surveyed are of the general opinion that the abundance and growing supply of health information make patients insecure, worried and confused (see Figure 2).

This seeming contradiction between the subjective satisfaction with the information found on the internet and a general skepticism towards web content is resolved in the in-depth interviews. The

“Good webpages are like a good one-on-one discussion with a physician who gives you all the information that you need.”

### Where patients source their information on the internet

Which of the following internet services relating to the topics of health and illness have you used?

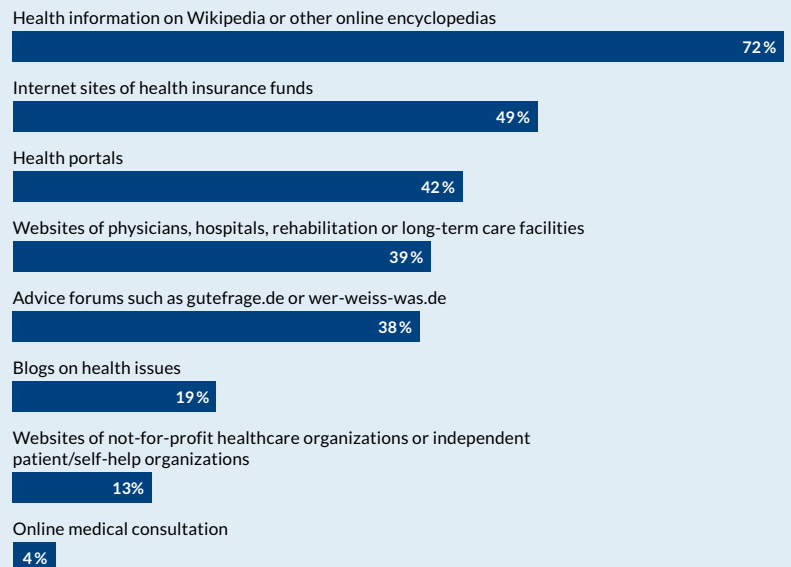


Figure 1 | Source: Kantar Emnid, survey as of October 2017, n = 946

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general concerns relating to internet information are much less significant than expressed in representative surveys. It is also clear that people trust themselves rather than the general public to find useful and trustworthy information on the internet.

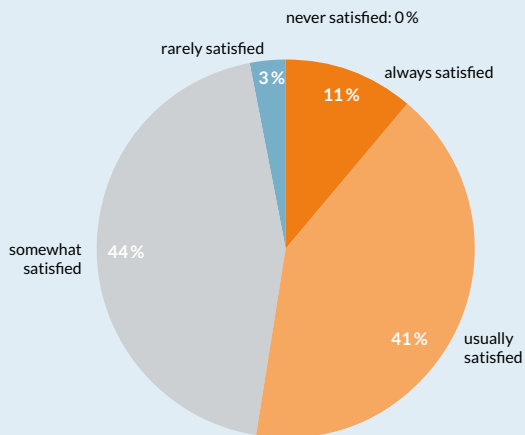
### The internet fulfills a variety of needs

When surveyed about the objectives and motives of their online searches, 73 percent of Germans say that they want to be better informed about health risks and illnesses. Over half also want to find tips and help on how to lead a healthier lifestyle or seek help themselves with respect to an acute health problem. Over half also want to find tips and help on how to lead a healthier lifestyle, or seek help themselves with respect to an acute health problem.

The in-depth interviews show that, in addition to the pragmatic reasons, there are often emotional motives for searching for health information on the internet (see Figure 3). Many patients are not only looking for more information; they are also looking for consolation, solace or reassurance – psychological components that are apparently not always satisfied by physicians and friends. When patients, for example, feel neither sufficiently informed by their treating physician

## Health information on the internet: Individual experience versus general assessment

How satisfied are you with the health information you find on the internet?



What is your general assessment of the growing supply of health information on the internet?

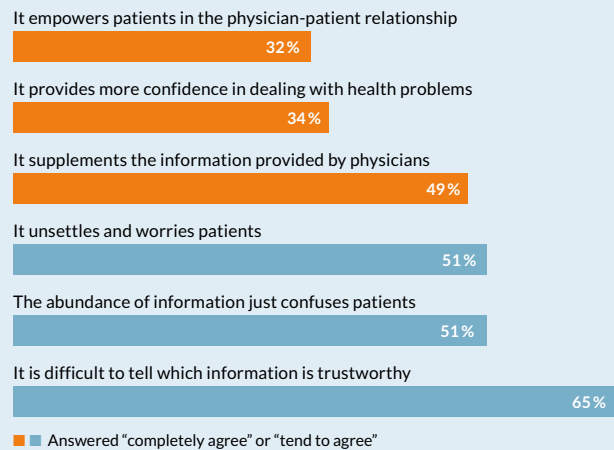


Figure 2 | Source: Kantar Emnid, survey as at October 2017, n = 983

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« The diagnosis was just dropped on me. I took the findings with me, but the physician left me on my own with what to do with them. »

nor that their emotional needs have been met, then Dr. Google can compensate.

The interviews show that patients consult the internet particularly after the diagnosis of a severe condition. They want support and help with processing the medical findings. Forums and networks with like-minded individuals offer solace and strength. The internet counterbalances the deficits of real-world physicians who do not (or cannot) dedicate sufficient time or do not possess adequate communication skills. Some patients are entirely unaware of the emotional motives underlying their searches, especially when they look for distraction or diversion on the internet. Others acknowledged their psychological motivations in the course of the in-depth interviews.

« The internet has given me strength. »

« As someone affected by an illness, you feel terrible – run down and tired. You need hope, things to be presented in a positive light, and courage. »

« I know there are others going through the exactly same thing. That is somehow consoling. On the internet, you're not alone with your illness. »

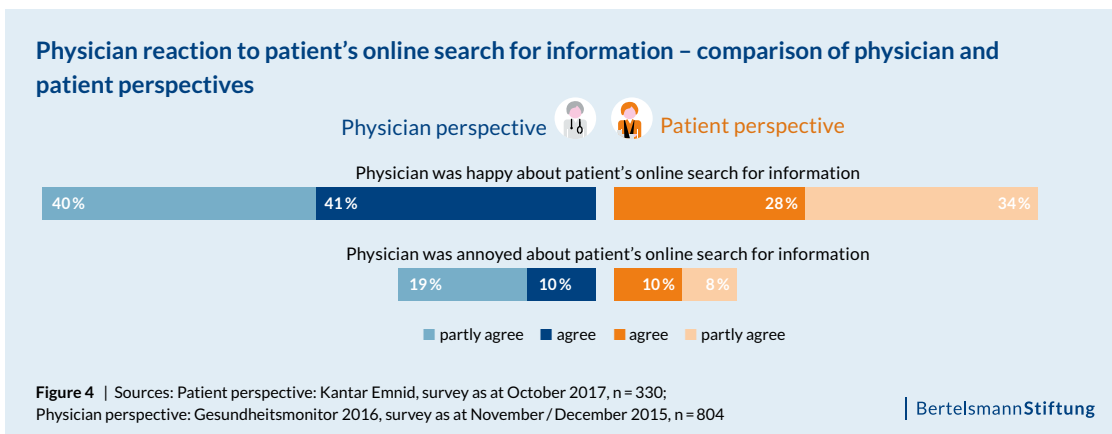
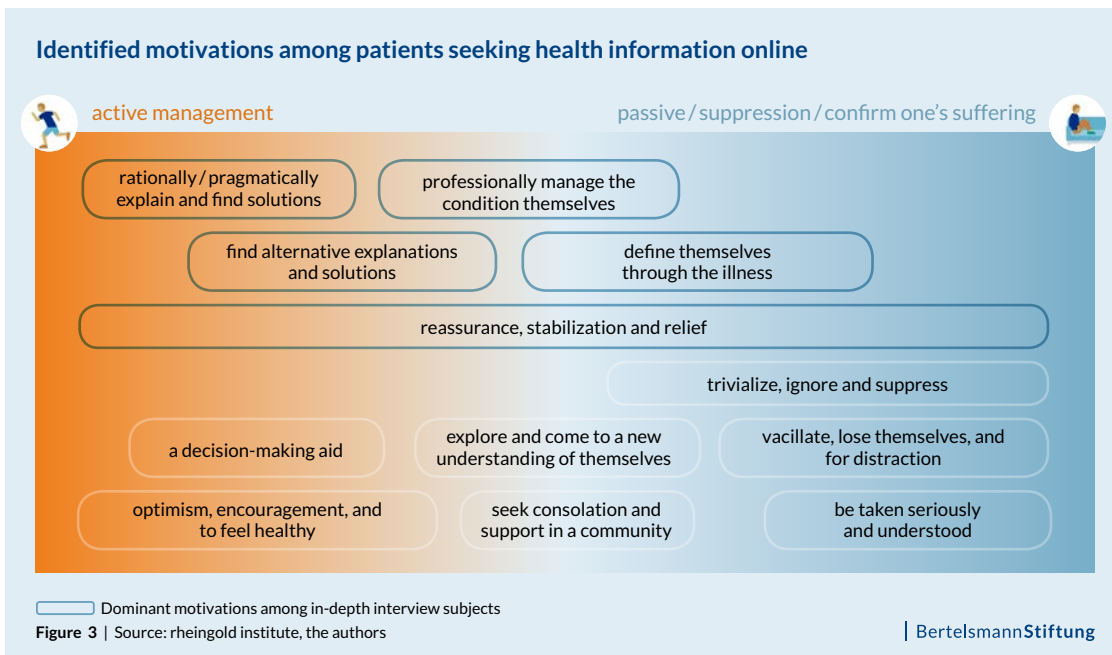
### Strategic behavior

In the in-depth interviews, the subjects' lack of trust in their physicians also comes up repeatedly. Fear of improper treatment, incomprehensible explanations – many factors can lead to a loss of trust and to patients resorting to searching for health information on the internet. The internet earns a lot of extra points here: It has unlimited time, it is available anytime and everywhere, and it never leaves you on your own. Information provided by physicians can be quickly checked, and visits to the physician can be prepared for and followed up on.

Some 30 percent of patients who search for health information on the internet have not disclosed this to their physician. Many want to wait first for the physician's reaction. A quarter are even concerned that the physician could get annoyed and categorize them as a difficult patient. That is, some patients take a deliberate strategic approach.

Patients also view the purposeful application of the knowledge they gain from the internet as empowering. The interviews show that patients are secretly happy to be able to stand up to physicians, such as with questions as to which costs the health insurance funds will cover and which individual health services they will have to pay for themselves.

Around a third of the German public believes that the increasing supply of online information



“ I always get information in advance. I don't trust physicians anymore. ”

“ Google provides the time to understand the illness. Today, physicians don't have the time to go through the tiniest details. That's ok – Google can do this. ”

empowers patients in the physician–patient relationship and contributes to them being less at the physician's mercy. One-in-three also says that it provides more confidence in dealing with health problems (see Figure 2). However, according to a previous survey for the Bertelsmann Stiftung's 2016 Gesundheitsmonitor, only 15 percent of physicians agree with the latter; over 50 percent do not believe this to be the case.

Regardless, over 80 percent of physicians are generally happy with their patients seeking infor-

mation on their own on the internet (see Figure 4). However, only one-in-two patients think the physician showed an interest in the patient's online searches, and some 18 percent feel that the physician was annoyed with the patient's initiative. The survey of physicians shows that as high as around 30 percent are at least partly annoyed by the patients' searches. It thus seems that many physicians keep both their happiness and annoyance to themselves.

#### No credibility bonus for non-commercial health services

Regardless of whether it concerns the cause of a rash, the treatment of knee arthrosis, or the meaning of a medical term – (almost) every internet search returns a lengthy list of hits. The in-depth interviews show that patients all but

unconditionally trust the search results and rankings. If Google doesn't deliver the expected results, patients attribute this to their own incorrect search strategy. This is a dangerous misconception, which bespeaks insufficient media skills. The supposition that the internet is blindly trusted is reinforced by the fact that, in the in-depth interviews as well, the subjects questioned the source of information only in exceptional cases.

When information on different internet sites is repeatedly read or heard, this is usually taken as confirmation of its correctness. Familiarity is equated with trustworthiness. This is corroborated

by the in-depth interviews. Finding the same piece of information just twice is enough to significantly increase its credibility (see box). Many interviewees tend to suppress that false information can spread and disseminate quickly across a variety of channels. Given the results of the in-depth interviews, it seems that the mainly negative assessment of information from the internet reported by the subjects of the representative survey is more reflective of what they consider to be a socially acceptable response, rather than their individual experience.

When searching online, none of the subjects of the in-depth interviews considered whether the information found was based on scientific fact. None of the patients interviewed knew such reputable service providers as the independent portal [gesundheitsinformation.de](http://gesundheitsinformation.de) of the Institute for Quality and Efficiency in Health Care (Institut für Qualität und Wirtschaftlichkeit im Gesundheitswesen, IQWiG). However, commercial service

**Distorted perception – the confirmation bias**

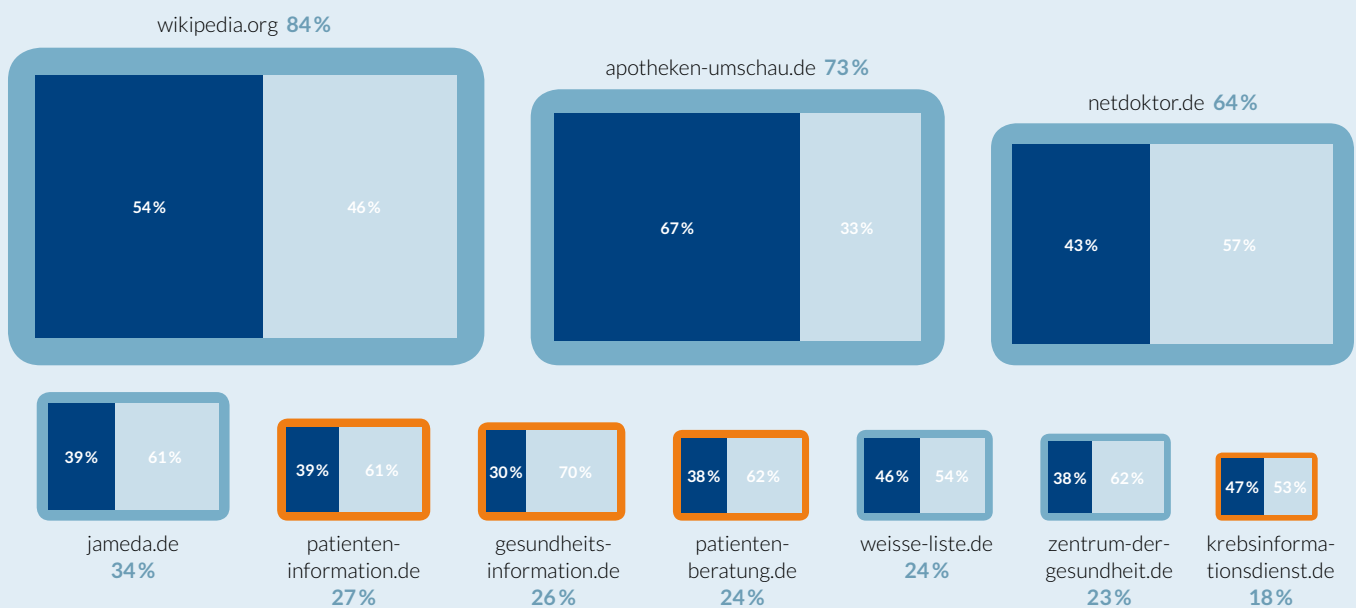
Whether we trust information also depends on what we believe to be true and what governs our behavior at the moment we receive the information. "How you actually approach a topic depends on how you feel," described a subject in the interview. Cognitive psychology describes this phenomenon as confirmation bias: Information and websites that are in agreement with our own assumptions, attitudes and ideas are trusted more than others.

“ You can find everything on the internet. ”

“ Google knows everything. ”

“ I always use the first three hits because I think they're the best. ”

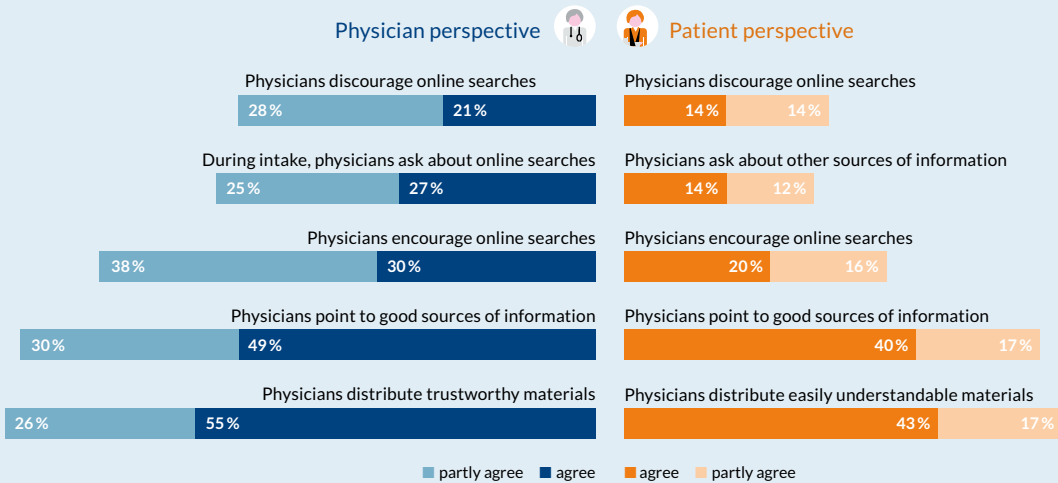
**Recognition and trustworthiness of online services**



Frame of reference: Recognizability ■ trustworthy ■ not trustworthy ■ services of public institutions  
 Example: Wikipedia was recognized by 84 % of the subjects of the survey. Of those who knew Wikipedia, 54 % considered the online encyclopedia to be trustworthy.  
 Figure 5 | Source: Kantar Emnid, survey as at October 2017, n = 959



## Physician support of patients' online searches – comparison of physician and patient perspectives



**Figure 6** | Sources: Patient perspective: Kantar Emnid, survey as at October 2017, n > 310; Physician perspective: Gesundheitsmonitor 2016, survey as at November / December 2015, n = 804

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“ Two websites displayed the same home remedy that my mother and sister recommend for colds, so I don't need need to visit a third website. ”

“ I keep returning to NetDoktor und Apotheken-Umschau. I know these websites, I trust them, they help me out just fine. ”

“ The calming effect of music on the heart was explained at the Zentrum der Gesundheit, so I listened to Schubert's Ave Maria for hours every day. And now I'm healthy again. ”

providers such as [apotheken-umschau.de](http://apotheken-umschau.de) (owned by Wort und Bild Verlag) and [netdoktor.de](http://netdoktor.de) (owned by the Holtzbrinck Publishing Group) enjoy a high level of recognition (see Figure 5). These services are, by and large, highly rated, which can also be accorded to the manner in which they address their users. As the interviews show, many patients want to be addressed in a different emotional tone – with more care and comfort, rather to be just handed purely factual information. Although these portals are financed by advertising (and the interviewees are very aware of this), they do not suffer a loss of credibility. The internet services [patienten-information.de](http://patienten-information.de) (of German Medical Association and The National Association of Statutory Health Insurance Physicians) and the health insurance fund-financed Independent Patient Counselling Germany (Unabhängige Patientenberatung, UPD), are not rated as more trustworthy

than the alternative medicine portal Zentrum der Gesundheit, which is very far removed from mainstream medicine. All of these services are accorded the same (low) level of trustworthiness.

### Physicians too reticent

From the perspective of the interview subjects, physicians have difficulties satisfying the emotional needs of their patients and fully informing them. According to our current representative survey, less than half of all physicians have materials on hand that are comprehensible to the layperson, or point to good sources of information. Only a fifth of physicians encourage patients to additionally obtain information themselves. According to patients, a significant number of physicians (14%) discourage patients from searching for information themselves (see Figure 6).

These results demonstrate that physicians do not yet sufficiently value patients' efforts to obtain information themselves. However, patients have very different, and often good reasons to look for further information after visiting a physician. Treating physicians should provide patients with reliable information or recommend appropriate online sources. Those treating patients also benefit from motivated and informed patients. Not only do they have to explain less, but they also can better involve patients in decisions – the basis of greater patient satisfaction, adherence to treatment, and good treatment outcomes.



Our studies (in German only) “Die Suche nach Gesundheitsinformationen,” “Nutzung und Verbreitung von Gesundheitsinformationen – Literaturüberblick,” “Das Internet: Auch Ihr Ratgeber für Gesundheitsfragen?” are available free-of-charge for download here: [bertelsmann-stiftung.de/patient-mit-wirkung](http://bertelsmann-stiftung.de/patient-mit-wirkung)

## Recommendations for action

### Strategic use of online information

Physicians increasingly recognize that patients are obtaining information themselves on the internet. According to patients, more than half of all physicians already show an interest in self-researched information, and around 40 percent provide materials that are comprehensible to the layperson and point to good sources of information. In order to improve the interaction of physician and internet – the two most important sources of information for the patient – the following measures should be promoted:

#### Physicians as patients' coaches

- Physicians should provide patients with more support and advice with respect to their online searches for health information. They have to be familiar with any well-founded information available so as to be able to recommend it.
- To fulfill their role as personal advisers, physicians need more time for patient consultations.
- Patients need to be encouraged to ask their physicians questions, and to discuss the results of their searches with them.

#### The diversity of health information on the internet should be viewed as an opportunity.

- Patients have rational and emotional information needs. These are satisfied by the diverse range of services with their different respective approaches to addressing patients.
- Disinformation has to be identified and combatted.
- The creation, communication, and dissemination of health information are separate tasks that don't necessarily need to be centralized. Providers should place more focus on sharing tasks and seeking to cooperate.

#### Use digital platforms to disseminate information

- To ensure that patients receive health information, it should be disseminated through channels with broad reach. This requires an openness towards existing platforms and adaptability to new technologies.
- The electronic patient record, in its capacity as a communication platform for physicians and patients, could serve to provide general and individually tailored health information.

SPOTLIGHT HEALTHCARE is an initiative of the "Improving Healthcare – Informing Patients" program at the Bertelsmann Stiftung. Published several times a year, SPOTLIGHT HEALTHCARE addresses topical issues in healthcare. The Bertelsmann Stiftung is committed to promoting a healthcare system relevant to public needs. Through its projects, the Stiftung aims to ensure the provision of needs-based and sustainable high-quality healthcare in which patients are empowered by access to readily understandable information.

SPOTLIGHT HEALTHCARE emerged within the framework of the "Patients with Impact" and "The Digital Patient" projects.

#### For more information:

[www.bertelsmann-stiftung.de/en/our-projects/patients-with-impact](http://www.bertelsmann-stiftung.de/en/our-projects/patients-with-impact) (in English)  
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