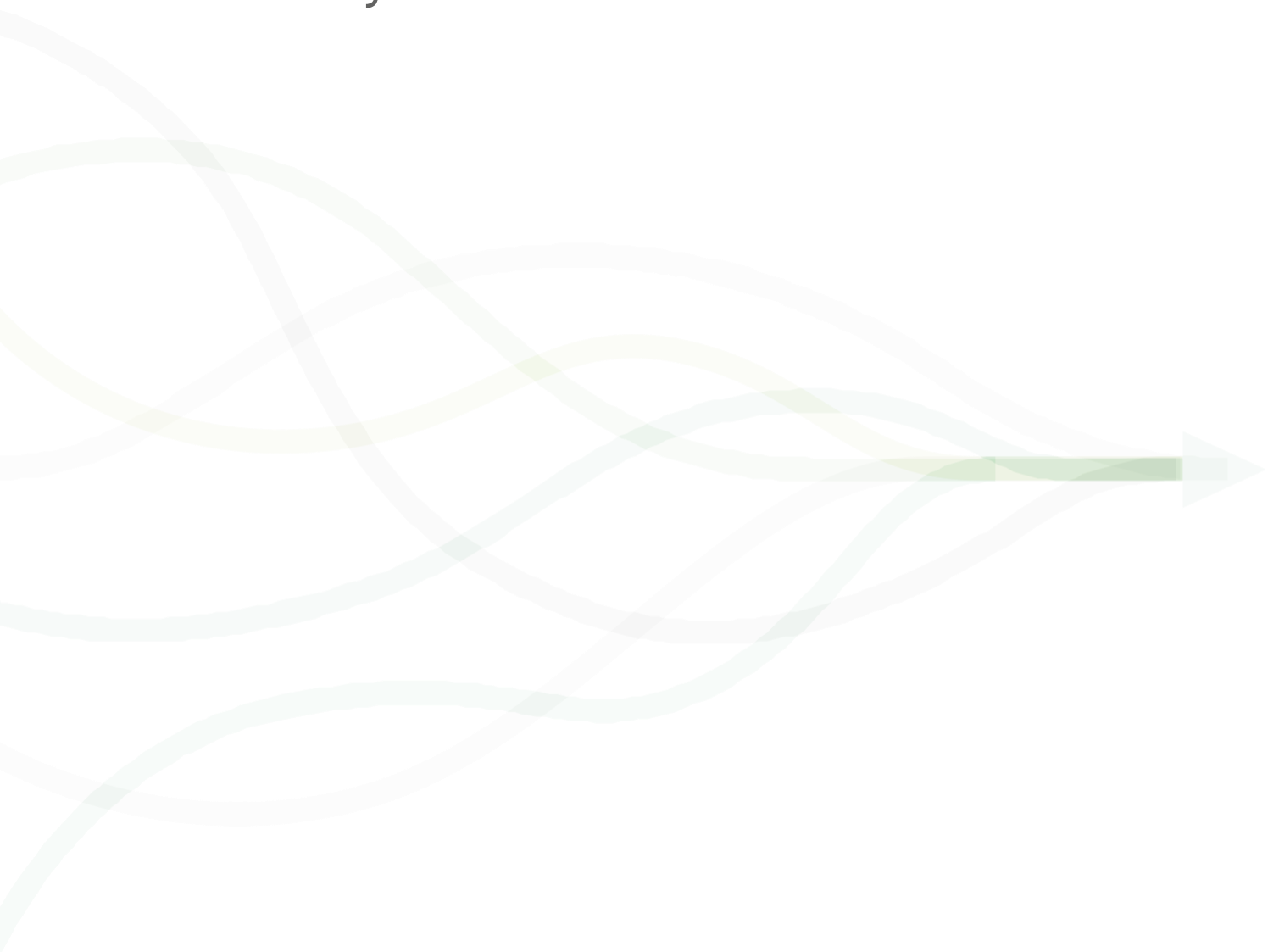




DIGITAL HEALTH LITERACY

in Germany





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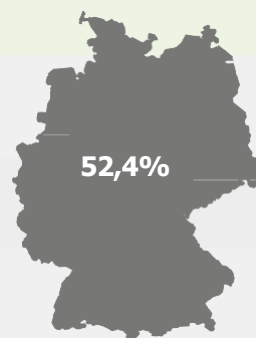
Status: December 2020

To facilitate the flow of reading, we use the gender-neutral form for personal data in this study report wherever possible, otherwise the masculine form.

Individual figures have been rounded in this study report.

The most important results at a glance

The German healthcare system is in the midst of a digital transformation. For this process to be successful, citizens must be able to use digital information and services properly. Digital health literacy plays a key role in this.



➤ Digital health literacy is measured in seven different areas. The actual search for information and the assessment of how reliable and relevant the health information found is the most difficult for the respondents.

➤ Women and people with higher incomes and education tend to show higher digital health literacy. Younger people also show somewhat higher digital health literacy.

➤ People with very good or good health have higher digital health literacy than those with mediocre to very poor health.

➤ More than half of people without a chronic illness have high or very high digital health literacy. Among people with several chronic diseases, the figure is only 43.1 percent.

➤ 48.3 percent of respondents find it difficult to distinguish reliable from unreliable information on the Internet. Four out of ten find it "difficult" or "very difficult" to judge whether the information is being disseminated with commercial interest.

➤ More than a third of respondents (38.7 percent) visit websites with health information at least once a week. A quarter say they use health-related digital aids such as fitness trackers once or more a day.



Introduction

With the first nationally representative study on the topic of digital health literacy, the AOK wants to determine how well people in Germany are able to evaluate and use digitally available health information for themselves in everyday life. The digitization of the healthcare system is penetrating more and more into our everyday lives. Digital aids such as smartphones, laptops and apps have become indispensable, and the amount of health information on the Internet is constantly increasing. The Corona pandemic has accelerated this development.

In the view of the AOK, digital health literacy is a decisive key qualification for the responsible citizen and patient. The demands on users to deal with digital online services and digital information and communication technologies in general are already very high today. Since the entire healthcare system is in the midst of digital transformation, these requirements and also the complexity will continue to increase in the future. It is therefore all the more important to provide all citizens with easy access to reliable, quality-assured information that can be understood by laypersons. This is an indispensable basis for citizens to accept and use innovations such as the electronic patient file, the electronic prescription, or the video consultations already implemented by physicians in private practice.

At present, however, the range of digitally available health information resembles a jungle. The amount of information available on the Internet is almost impossible to keep track of. For example, a user can find a good 400 million hits on Google under the search term "health," the topic of nutrition brings up just under 100 million, and the term "sleep" comes up with a good 30 million results. Many of the hits found are difficult to understand; they are often contradictory, of questionable quality or simply wrong. This misleading is particularly critical because health is at stake. In addition, the web is full of interest-driven information of unclear origin.

AOK is committed to improving health literacy. As early as 2014, the AOK Bundesverband and the Scientific Institute of the AOK (WIdO) investigated how easy it is for people in general to find, understand, evaluate and apply health information in everyday life (Kolpatzik, 2014; Zok, 2014). The result: around 59 percent of respondents showed problematic or inadequate health literacy. A 2016 study by the University of Bielefeld confirmed these figures. The term health literacy refers to the ability to deal with health-related information. In essence, it is about finding, understanding, evaluating and applying health-related information, with the help of which people can make decisions in their everyday lives in the areas of health and health care.

prevention and health promotion as well as care that are beneficial to their own health (Sørensen et al., 2012). The alarming and surprising results of the AOK study prompted the health insurance fund to take a closer look at the issue of health literacy and to offer solutions to the problem.

A key milestone was the development and publication of the National Action Plan on Health Literacy in February 2018 (NAP, 2018), which was co-chaired by the AOK Bundesverband. This set the guard rails for the field of action of health literacy in Germany. Another important milestone is the inclusion of education in the field of health literacy. More than 6.2 million people of working age have difficulty reading and writing. Thus, one in eight Germans has low literacy (Grotlüschen et al., 2019). In order to be able to strengthen health literacy in this group as well, appropriate information must be developed in a way that is suitable for the target group - and this applies to both general and digital health literacy.

Alarming gaps in knowledge. Empowering people to make good, self-determined decisions for their own health is one of the central concerns of the health insurance fund. Against this backdrop, in June 2020 the AOK published Germany's first representative study on food literacy (Kolpatzik & Zaunbrecher, 2020). It is also true for the area of nutrition that, at over 53 percent, a good one in two people in Germany has problems dealing with questions about nutrition. Eight individual areas of nutrition were examined in detail.

The study on digital health literacy is now the third study by the health insurance fund in this series. It is intended to provide findings and insights into the target-group-specific



The AOK played a key role in the development of the National Action Plan for Health Competence.

The aim of the project is to provide information on how to deal with health information. In this case, very specifically in the context of the dynamically developing field of digitalization of the health care system and with regard to the flood of health information on the Internet. The almost unmanageable digital offer of information makes it increasingly difficult for many people to distinguish between relevant facts and false reports and to derive effective and healthy actions from them.

Digitally available health information. Digital health literacy is based on a similar understanding as general health literacy. It focuses on digitally available health-related information via digital communication technologies and media such as the Internet, social media and apps. It takes into account the user's individual, social, and technical competencies and resources that are important for searching, finding, understanding, evaluating, and applying digitally available health information (*see box Definition "What is digital health literacy?"*). Competence in using digital technologies is assumed here, although it is clear that there are more adept and less adept people in using digital technologies. The target group of less tech-savvy individuals

What is digital health literacy?

General digital health literacy encompasses individual, social and technical competencies and resources that are important for searching, finding, understanding, evaluating and applying digitally available health information. It is a dynamic concept closely linked to the lifelong learning and empowerment approach. Digital health literacy takes into account the continuous development of digital technologies. It is intended to enable citizens to increase their self-efficacy through the use of digital health applications and to lead a self-determined life with a high quality of life.

Specific digital health literacy includes dimensions such as computer literacy, data literacy, privacy literacy, traditional literacy, media literacy, navigation literacy, information literacy, and health literacy. These dimensions are each to be applied to the dynamic context of health, the health care system and society as a whole. The specific competencies enable citizens to protect their privacy, increase data security, and maintain and improve their health and well-being with reliable information.

Kolpatzik, K., Zeeb, H., and Sørensen, K., 2020.

will therefore be the focus of a further study at a later date.

However, digital health literacy itself should not be seen as an isolated concept, but according to the definition includes several dimensions: In addition to the basic ability to read and write, it also includes skills in dealing with information, computers and media. In addition, there are navigational skills and the associated search and find strategies, as well as skills in dealing with questions about data in general, data protection and data security. To make it easier to understand, the individual dimensions of digital health literacy are described as

Digital health literacy

Fig. 1: The eight dimensions of digital health literacy



Further development of a model originally elaborated by Norman and Skinner (Norman & Skinner, 2006) will be briefly presented:



In 2020, the AOK published the first nationally representative study on food literacy.

- **Computer Literacy:** knowledge and ability to use computers, related technologies, and electronic media effectively.
- **Data Literacy:** ability to collect, manage, evaluate, and apply data with a critical eye.
- **Privacy Literacy:** Data protection competencies and technical skills to protect personal data (also against manipulation and other threats).
- **Traditional Literacy:** reading and writing skills to use written information.
- **Media Literacy:** Ability needed to participate actively, consciously and critically in the digital media society.
- **Navigation Literacy:** Ability to use the Internet confidently and competently to answer health-related questions.
- **Information Literacy:** Ability to assimilate, process, and apply health information and scientific information sources.
- **Health literacy:** ability to deal with health-related information

Various international studies have shown that higher digital health literacy is associated with many health-related benefits. These include better health, more effective contact with medical staff, a better understanding of the individual's state of health, and greater use of early detection examinations. Initial findings from German research groups confirm this. For example, a recent study on the digital health literacy of students in Germany during the Corona pandemic shows that students with a high level of digital health literacy also have a higher level of psychological well-being (Dadaczynski et.al., 2020).

With the Digital Health Care Act (DVG), which came into force at the end of 2019, the legislator has obliged the statutory health insurance funds under Section 20k of the German Social Code, Book V to include corresponding services in their statutes with which digital health literacy can be increased. However, in order to be able to implement appropriate measures in a targeted and target-group-specific manner with the greatest possible benefit for citizens, the AOK felt that it was first necessary to analyze the initial situation. With this first nationally representative survey in Germany on digital health literacy, the AOK is once again taking on a pioneering role and providing a corresponding database as a basis for decision-making. The goal remains to provide insured persons with the best possible, targeted and efficient support in the form of offers and information on a scientific basis, so that they can make optimum use of the digital opportunities in the healthcare system and exploit them for their own benefit.

Methodology and study design

For the first nationally representative study on digital health literacy, the SKOPOS Institute used an internationally validated questionnaire that examines the topic from seven different angles. This allows the very different facets of digitization in healthcare to be accurately mapped. For the first time, the study provides detailed insights into the contexts in which citizens find it particularly difficult or easy to deal with digitally available health information.

The empirical basis of this study is an anonymous survey of a total of 8,500 participants in an online access panel aged 18 to 75. The sample is based on the microcensus of the Federal Statistical Office and is representative in terms of age, gender, education level and income (see figure 2). The overall sample is obtained by surveying 500 respondents in each state - in North Rhine-Westphalia, the social researchers also surveyed 500 randomly selected respondents in the Rhineland and Westphalia. At the national level, the study weights the federal states representatively according to their population, while at the state level, it provides representative quotas according to age and gender (with the exception of Bremen and Saarland). With regard to the level of education, the participants were weighted at the state level. The online survey was conducted in September and October 2020 - this took around seven minutes on average per survey.

How can digital health literacy be measured? The AOKBundesverband, the AOK Rheinland/Hamburg and the Leibniz WissenschaftsCampus Digital Public Health coordinated the questionnaire. The concept is based on the Dutch Digital Health Literacy Instrument (DHLI). This survey instrument, published by van der Vaart and Drossaert in 2017, appears to be particularly valid, especially in direct comparison with other international questionnaires that could be considered in principle and against the background of the dynamically developing field of digitalization (van der Vaart & Drossaert, 2017). The two researchers addressed the question of how digital health literacy can be measured and developed a catalog of 21 questions for this purpose. With the help of the questionnaire, they were able to determine the subjective perception of digital health literacy among adults.

The questionnaire of the present AOK study on digital health literacy is based on the translated English-language publication and was supplemented by questions on health status and the presence of chronic diseases as well as on health-related media use.

Sampling distribution

Fig. 2: For the nationally representative study, SKOPOS surveyed a sample of 8,500 people in September and October 2020.

		Quantity	%	Comparison microcensus
Age	18-29	1.672	19,7%	
	30-45	2.313	27,2%	
	46-59	2.502	29,4%	
	60-75	2.013	23,7%	
Gender	Male	4.220	49,6%	49%
	Female	4.254	50,0%	51%
	Divers	26	0,3%	-
Highest School-leaving qualification*	Still a pupil	142	1,7%	1%
	Departure without graduation	121	1,4%	4%
	Secondary or elementary school diploma	2.824	33,2%	31%
	Middle maturity	2.544	29,9%	31%
	Baccalaureate	2.753	32,4%	33%
Income*	Until 1.499 €	1.713	20,2%	
	1.500 to 1.999 €	1.188	14,0%	
	2.000 to 2.599 €	1.279	15,0%	
	2.600 to 2.999 €	895	10,5%	
	3.000 to 3.999 €	1.303	15,3%	
	4.000 to 4.999 €	747	8,8%	
	5.000 € and more	451	5,3%	
Migration background = person himself or at least one parent born in other country	Without migration background	6.789	79,9%	
	With migration background	1.711	20,1%	

Note: * "Other", "Don't know", etc. not shown.

The sample was based on the microcensus of the Federal Statistical Office. It was representatively proportioned nationwide according to age, gender, level of education and income. The German states were weighted representatively in the overall result on the basis of their population figures. At the state level, representative quotas were used for age and gender (exceptions: Bremen and Saarland). With regard to educational level, the participants were weighted at the state level.

The AOK study collects data from seven different areas. These range from operational skills to the ability to navigate, to create one's own content and to protect privacy, to the search for information itself and the associated assessment of reliability and the determination of relevance.

In order to determine the personal digital health literacy of each study participant, an individual score is calculated in this study on the basis of the 21 questions asked. The answers are then used to calculate an individual average score, the so-called eHealth LiteracyScore. This lies between one and four, with a score of four indicating the best possible digital health literacy. However, only the scores of those respondents who answered at least 15 questions of the DHLI were included in the study results. In the study, this applies to almost 90 percent of the sample - so no score was determined for around ten percent of respondents.

Calculation of cut-off points. To divide the data into different categories, the IGES Institute used regression analyses to test and evaluate various models for calculating the cut-off points. The results of the best models tested in this way were confirmed in comparison with previous studies on health literacy and food literacy. Finally, the cutoffs were determined according to the quartile model. Based on the regression analyses, the four categories "low," "moderate," "high," and "very high" emerged (see Figure 3). The categories "Low" and "moderate" are collectively referred to as limited digital health literacy.

The four categories of the eHealth Literacy Score.

Fig. 3: Quartile model with cut-off points.

A person's digital health literacy score is calculated from the mean score across at least 15 of the 21 attitude questions around the topic of digital media use. The eHealth Literacy score can take a value from 1 to 4 (4 would be the best possible digital health literacy) and is divided into four categories:

	low
	moderate
	high
	very high

Study results

Digital health literacy is a complete framework for action. It encompasses individual, social and technical competencies and resources that are important for searching for, finding, understanding, evaluating and using digitally available health information. Taking this framework into account, the study divides digital health literacy into the following seven areas.

1. Operational skills

Users need operating skills to be able to use a computer and an Internet browser as well as a mobile device. This includes, for example, the use of a keyboard, a touchscreen, and a search engine, the ability to navigate the Internet, and to download apps from app stores.

2. Information search

Users need information literacy skills to search for information online, such as choosing an appropriate search engine, formulating a correct search query, and understanding which pages a search engine prioritizes as results and why.

3. Reliability assessment

Users need evaluation skills to filter out the reliable, trustworthy and applicable results from the selection of search results and to evaluate them. This includes deciding which results are independent, trustworthy, of high quality, non-promotional, commercial, or questionable.

4. Determination of relevance

Users need prioritization capabilities to filter out from the set of search results those that are relevant and important to the problem they are looking for.

5. Ability to navigate

Users need navigational skills to confidently and competently use the Internet to answer health-related questions.

6. Creation of own content

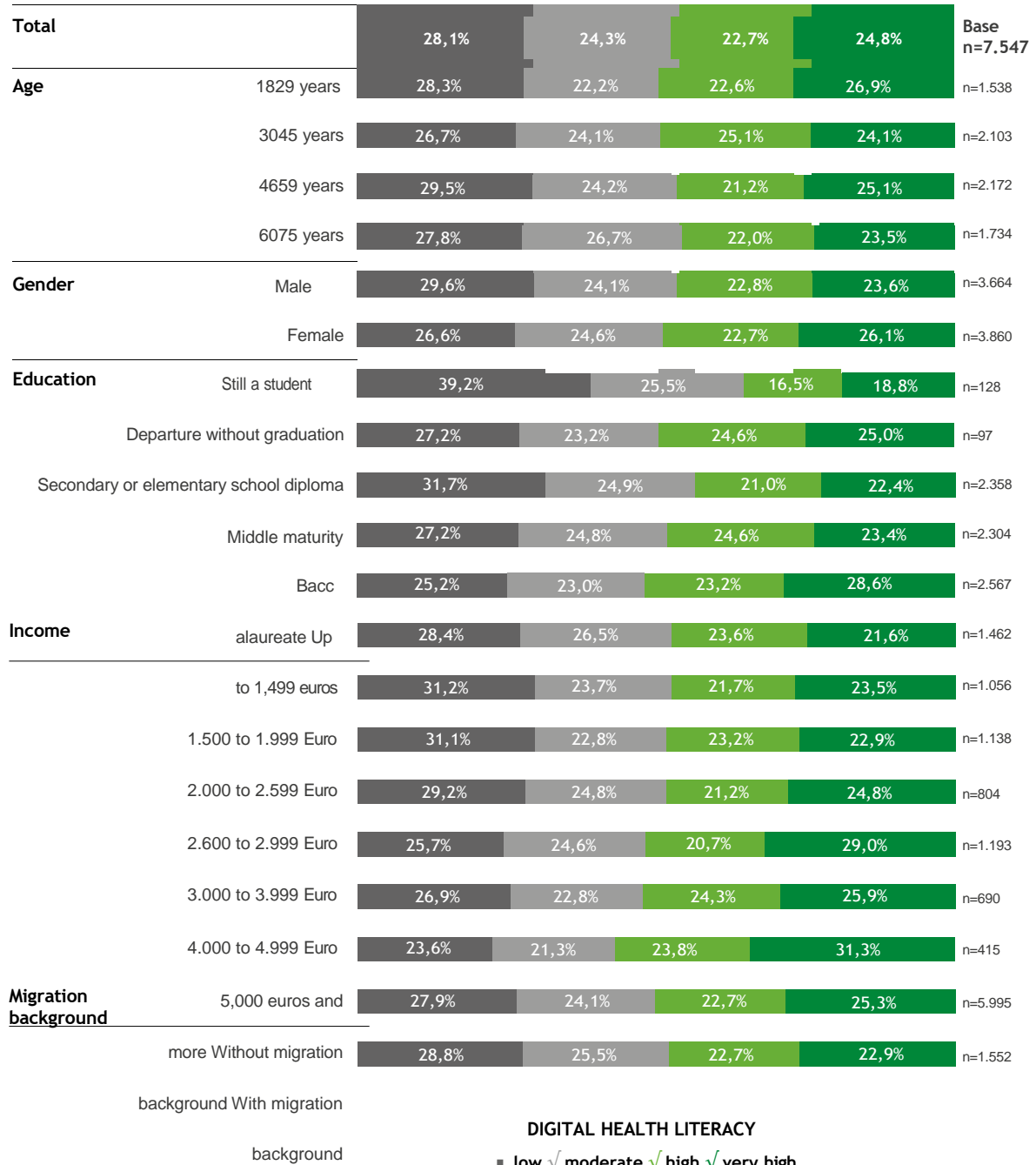
Users need the skills to independently formulate and send e-mails with questions to institutions/organizations in the healthcare sector in a comprehensible manner. In addition, when they communicate with other users on the Internet, for example in social media, they must be able to express their concerns.

7. Protection of privacy/data protection

Users should be highly sensitive to the handling of their own data and that of other people. This includes not sharing private and personal data, or sharing it only rarely, and assessing which people can read messages posted on social networks or forums.

Digital health literacy at a glance

Fig. 4: Comparison by subgroups



The results of the study show that sociodemographic characteristics have only a minor influence on digital health literacy. For example, the proportion of people with limited digital health literacy increases only insignificantly with age. Small differences are found for women and men, with a better result for the female gender. Origin does not play a significant role: people with a migration background have slightly lower digital health literacy than people without a migration background. In terms of education, higher educational attainment also indicates higher digital health literacy. If we look at income, we see that the lower the income, the lower the digital health literacy.

Strong link between health and competence

Fig. 5: Distribution of eHealth literacy score by health status.

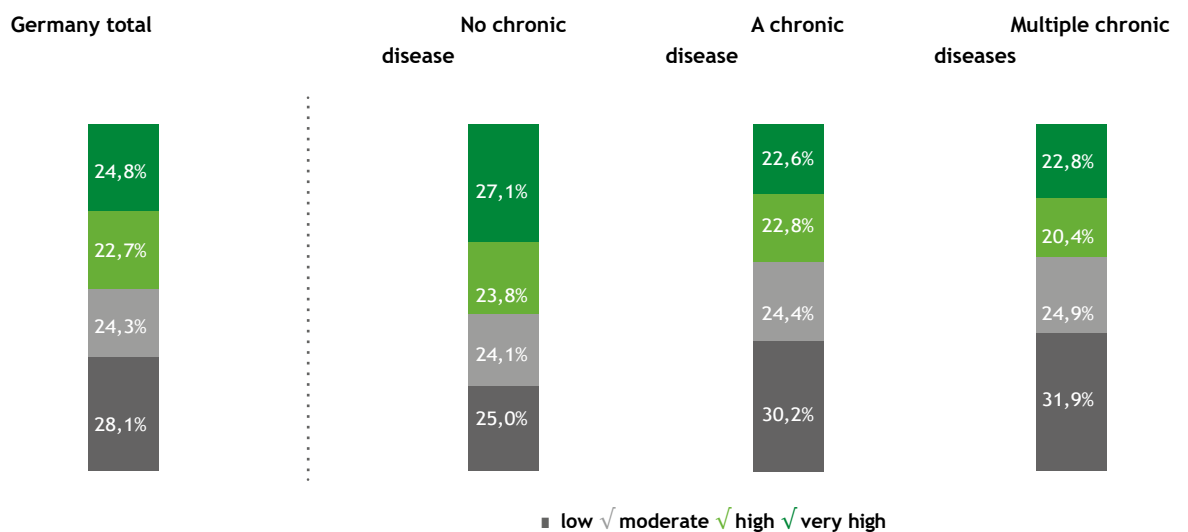


Base: All respondents n=7,547 (states weighted representatively by population), Very good n=890, Good n=3,333, Fair n=2,462, Poor n=678, Very poor n=161, Don't know n=25

The correlation between health status and digital health literacy is clearly evident: 60.3 percent of respondents who rate their health status as poor have limited digital health literacy, compared with only 40.6 percent in the group with very good health status.

Chronics have poorer digital health literacy

Fig. 6: Distribution of eHealth literacy score by presence of chronic conditions.



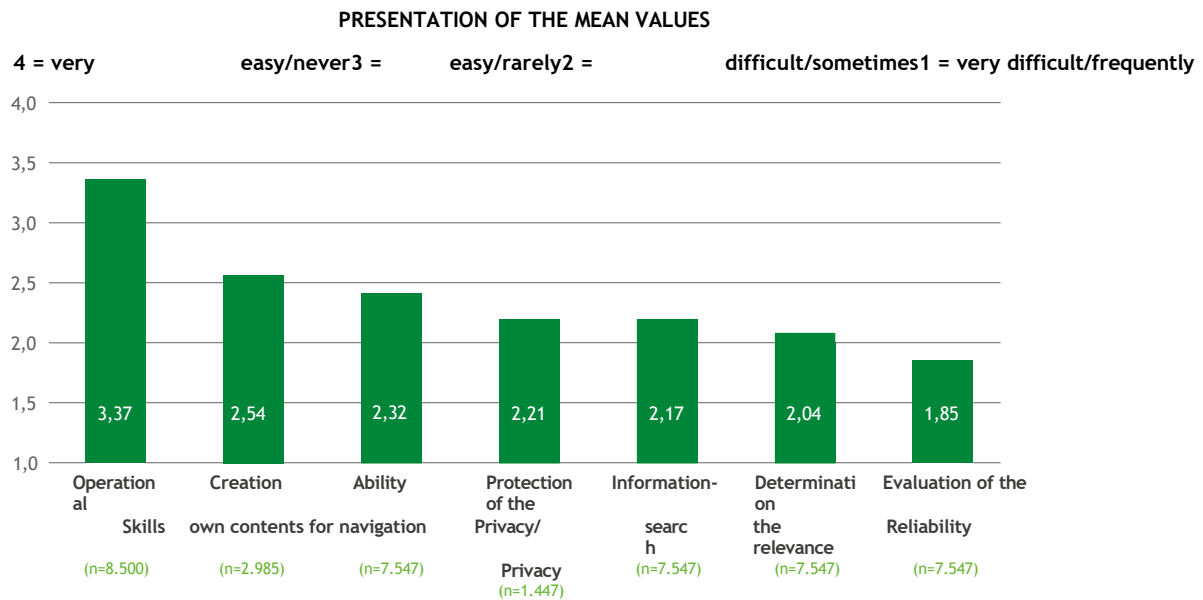
Base: all respondents n=7,547 (states weighted representatively by population), Chronic disease: one n=2,184, multiple n=1,676, none n=3,687

Note: Only participants who could answer at least 15 items included.

If the survey on digital health literacy focuses on chronic illnesses, it becomes clear that people with chronic illnesses have poorer digital health literacy than people without chronic illnesses. The effect is amplified by the number of chronic illnesses.

Clear differences in the seven areas

Fig. 7: eHealth literacy score in the digital health literacy domains.

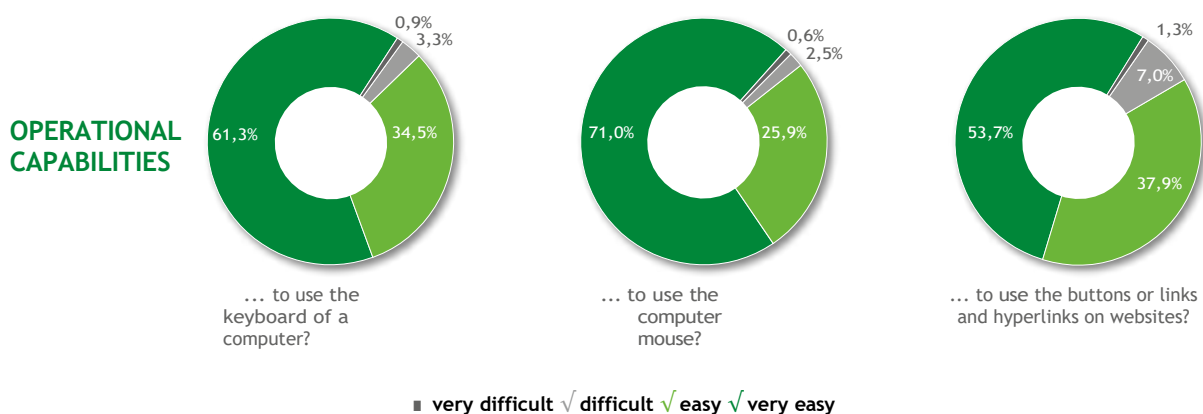


Note: Due to the filter guide, the base varies in the individual areas.

Looking at the individual areas of digital health literacy, considerable differences can be seen. Respondents have the greatest difficulty in assessing the reliability of information found on the Internet. Here, the average eHealth literacy score is 1.85. Determining the relevance of information found (2.04) and the information search itself (2.17) also cause problems for many respondents.

Dealing with technology is easy

Fig. 8: When you search the Internet for information on health topics - how easy or difficult is it for you to ...

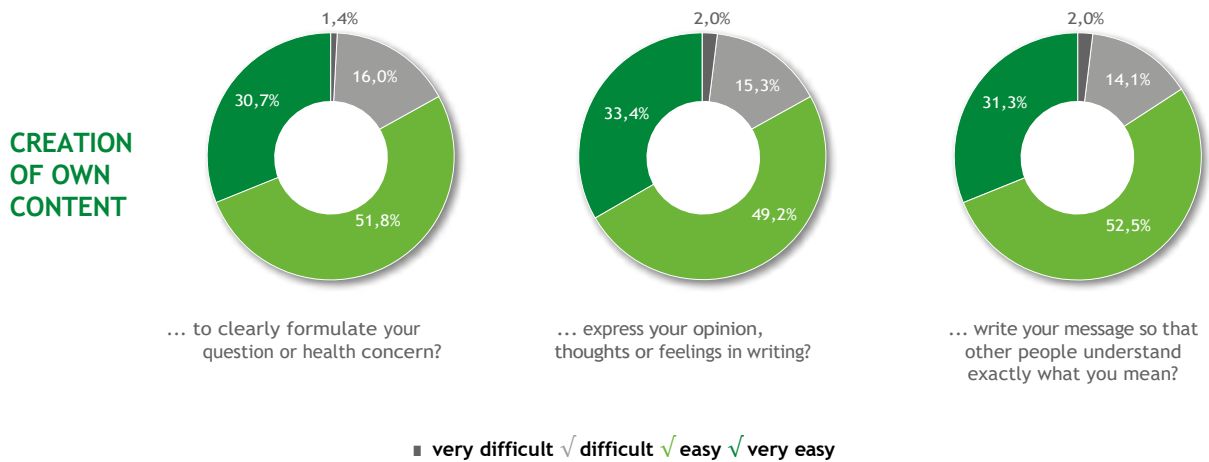


Basis: All respondents n=8,500 (federal states weighted representatively according to population).
 Note: Due to filtering, the base varies in the individual areas.

As the survey was conducted exclusively online, the operational skills score better, as expected. Operational skills include, for example, operating the computer mouse and keyboard or using links on the Internet. The vast majority of respondents have no problems here.

Formulating health questions is difficult for a few

Fig. 9: When writing a health-related message, how easy or difficult is it for you to ...

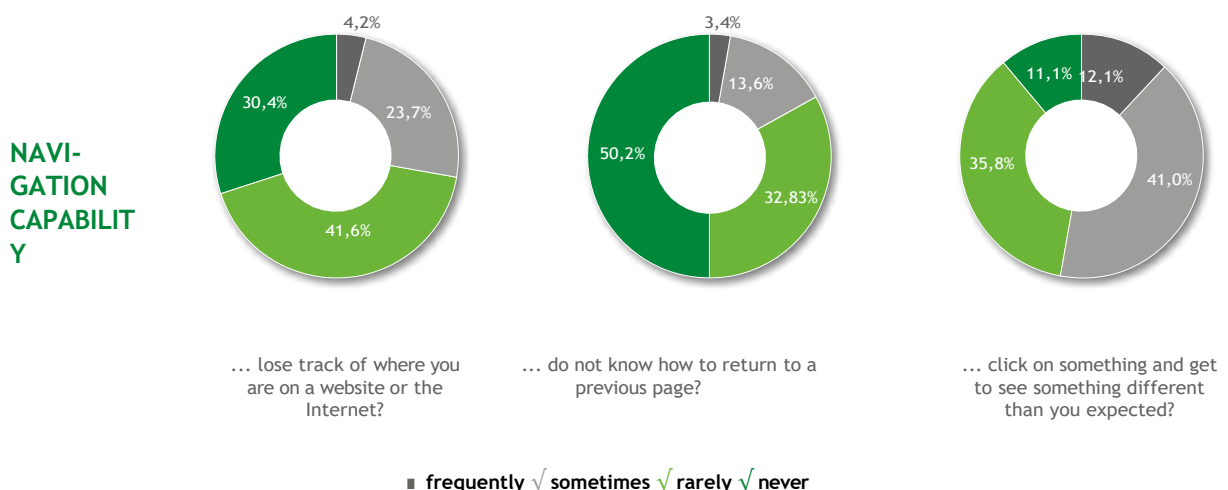


Basis: All respondents n= 2,985 (federal states weighted representatively according to population).
 Note: Due to filtering, the base varies in the individual areas.

When it comes to creating their own content, only a few of the respondents have problems. 17.4 percent find it difficult or very difficult, for example, to clearly formulate their health questions or opinions in Internet forums. 16.1 percent say they have difficulty writing their message so that other people understand it exactly.

Many get unexpected search results

Fig. 10: When you search for health information on the Internet - how often does it happen that you ...

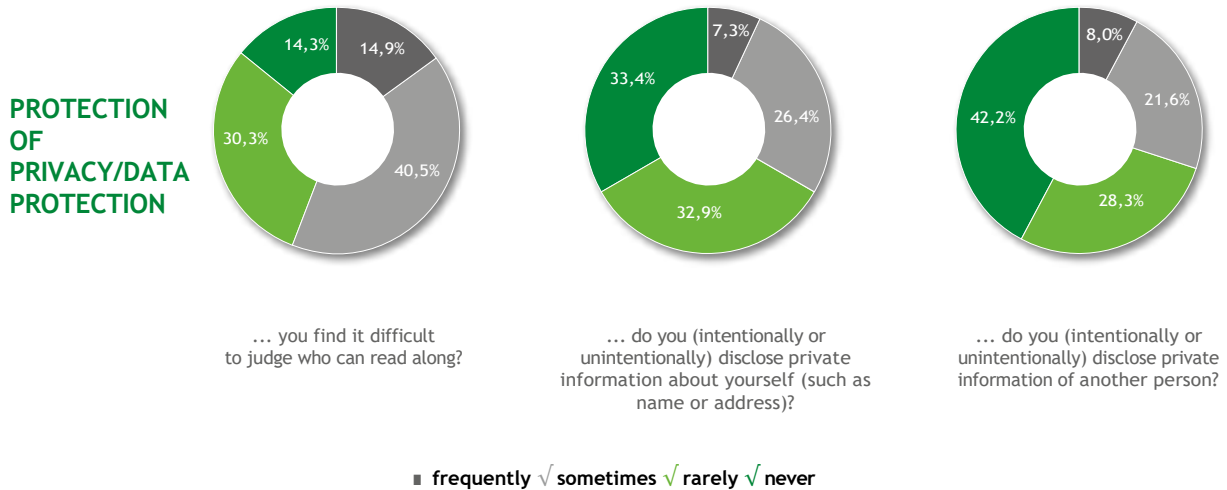


Basis: All respondents n= 7,547 (federal states weighted representatively according to population).
 Note: Due to filtering, the base varies in the individual areas.

While about a quarter of respondents (27.9 percent) frequently or sometimes lose track of where they are on the Internet, even more than half (53.1 percent) experience it frequently or sometimes when they click on a link that they get results they didn't expect.

It is often unclear who is reading along on social media

Fig. 11: When you post a health-related message in a public forum or on social media - how often ...

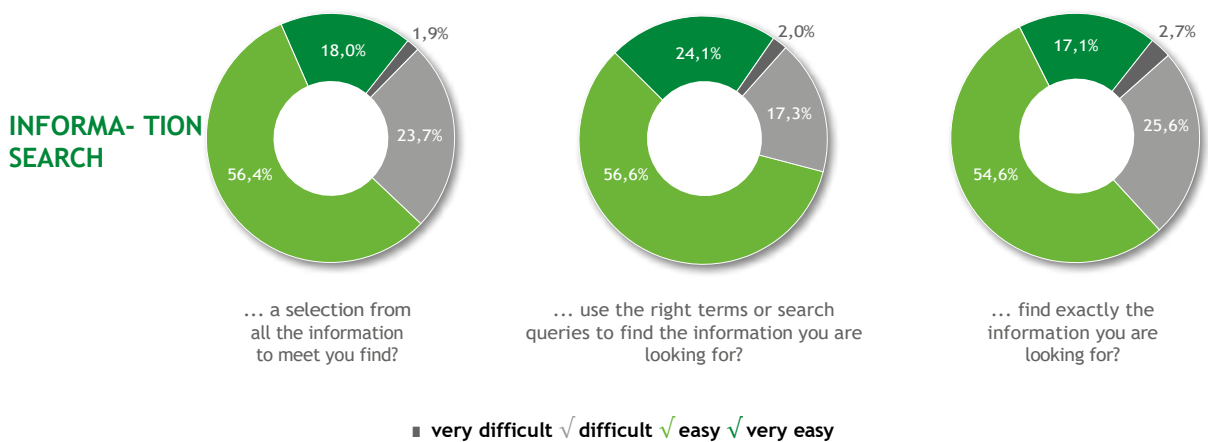


Basis: All respondents n= 1,447 (federal states weighted representatively according to population).
 Note: Due to filtering, the base varies in the individual areas.

More than half of those surveyed are sometimes or often unsure who can actually read their messages posted on social media or public forums. One in three (33.7 percent) say they often or sometimes share sensitive data such as their own name or address online.

Selection of information causes problems

Fig. 12: When you search the Internet for information on health topics - how easy or difficult is it for you ...

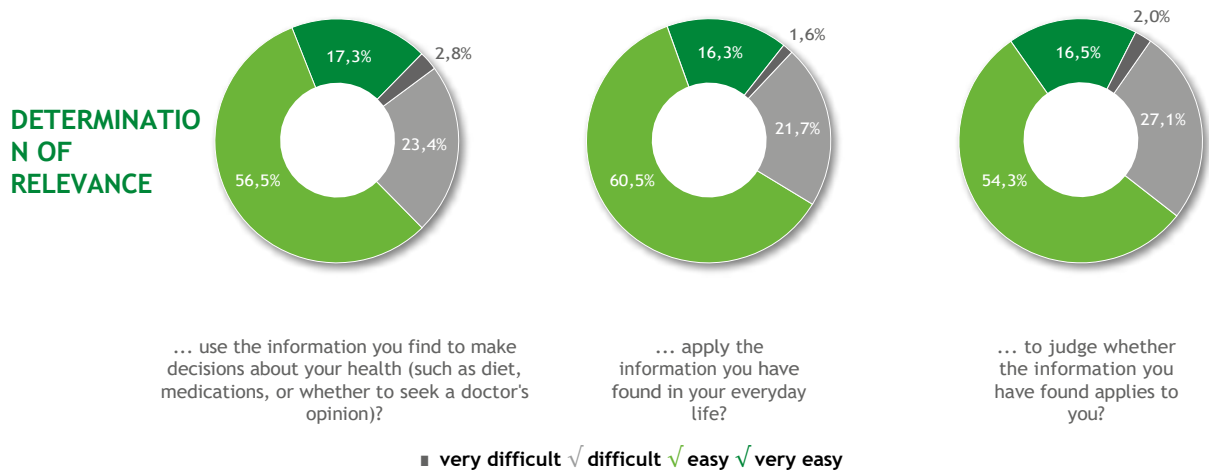


Basis: All respondents n= 7,547 (federal states weighted representatively according to population).
 Note: Due to filtering, the base varies in the individual areas.

When searching for information, the biggest hurdle is finding exactly the information that is needed from the large amount of information. Accordingly, more than a quarter of respondents (25.6 percent) have difficulty making a selection from the large amount of information found or finding exactly the information they are looking for (28.3 percent).

Using information in everyday life is difficult

Fig. 13: When you search the Internet for information on health topics, how easy or difficult is it for you to ...

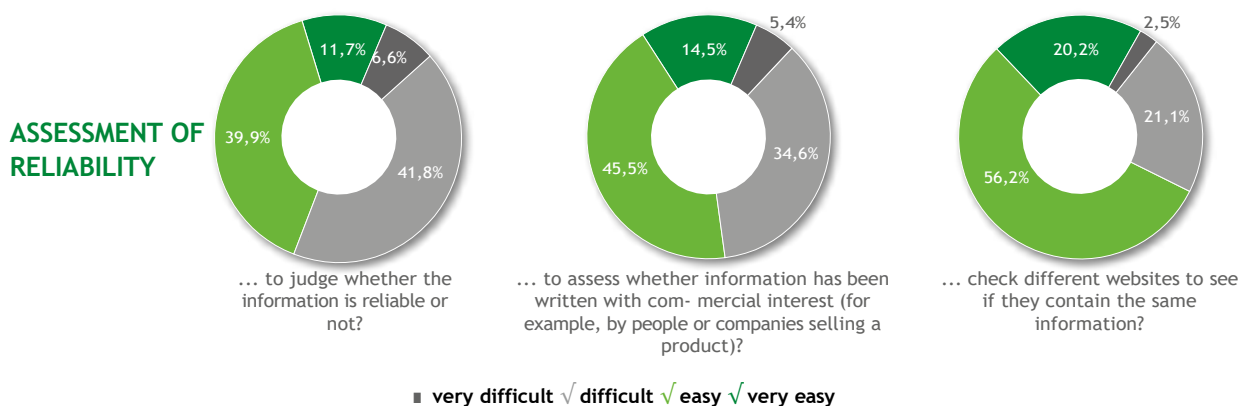


Basis: All respondents n= 7,547 (federal states weighted representatively according to population).
 Note: Due to filtering, the base varies in the individual areas.

When determining the relevance of information, it becomes apparent that many of the respondents are unable to use the information found in everyday life, or can only use it to a limited extent. Accordingly, more than a quarter have difficulties in using health information.

Reliability of the information is difficult to assess

Fig. 14: When you search the Internet for information on health topics, how easy or difficult is it for you to ...

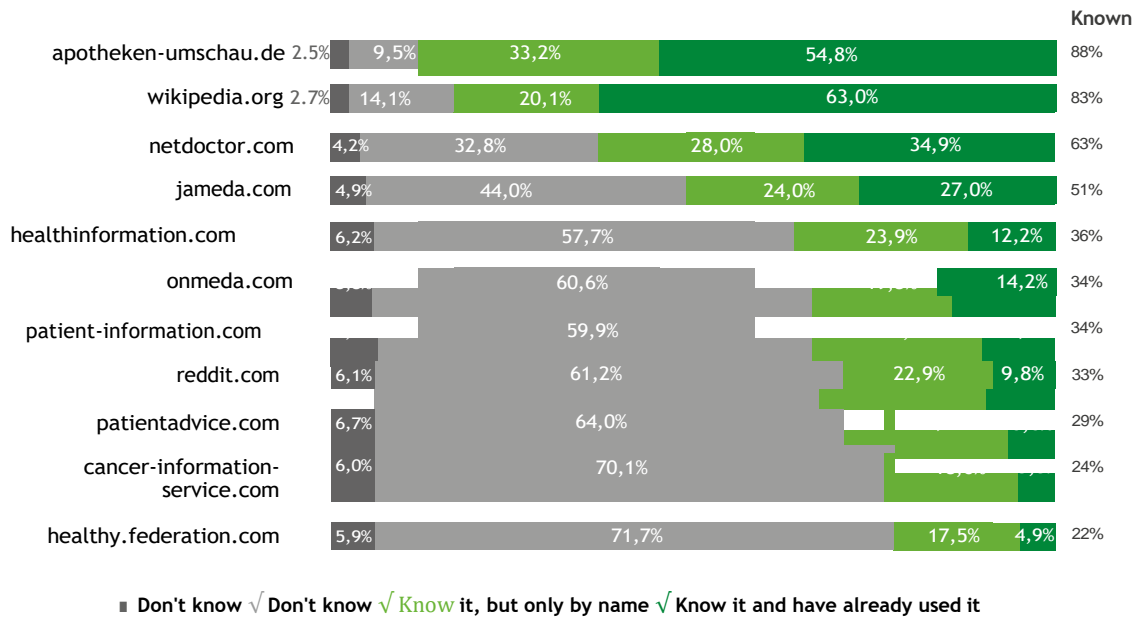


Basis: All respondents n= 7,547 (federal states weighted representatively according to population).
 Note: Due to filtering, the base varies in the individual areas.

How meaningful is the information found on the web? This assessment is the most difficult for the respondents: Almost half cannot judge whether health information is reliable. Four out of ten respondents are also unable to assess whether there is a commercial interest behind the information.

Differences in the level of awareness of the offers

Fig. 15: Which of the following health information websites do you know, at least by name?



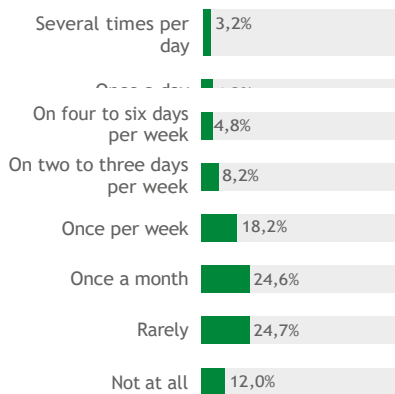
Basis: All respondents n=8,500

When searching for health information on the Internet, most respondents use the online encyclopedia wikipedia. The second most frequently visited site is Apotheken Umschau. Only 4.9 percent currently click on the new national health portal of the Federal Ministry of Health gesund.bund.de.

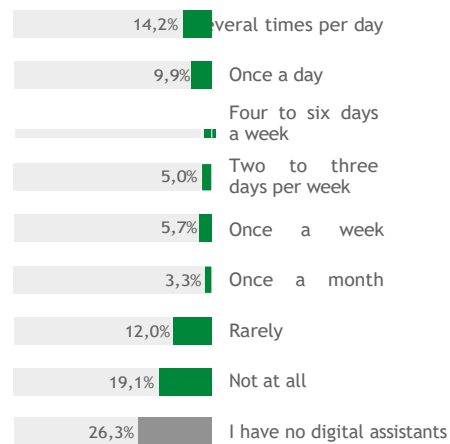
Most use health websites very infrequently

Fig. 16: Frequency of health-related media use

Typical use of health information websites



Use of health-related digital assistants (Fitness trackers, health apps or smartwatches).



Basis: All respondents n=8,500

Half of respondents visit health information websites only once a month or less, 12.0 percent do not search for health information on the Internet at all. The situation is different for the use of health-related digital assistants. 24.2 percent use a smartwatch or health app every day, while 15.3 percent still use a digital assistant at least once a week. The proportion of respondents who do not use any digital aids at all is more than a quarter (26.3 percent).

Evaluation of the results

A good one in two citizens has problems in dealing with health-related digital offerings and information. This is confirmed by the first nationally representative data on digital health literacy in Germany. As digitization continues to advance, there is a danger that citizens will no longer be able to keep up. That's why they need good offerings that enable them to improve their digital health literacy. At the same time, the structural framework also urgently needs to be expanded.

A high level of digital health literacy enables citizens to make the best possible use of digital health applications and digitally available health information. It is therefore considered a key qualification for the responsible and digitally savvy patient in order to be able to benefit from the digital transformation in the healthcare system and to play an active role in shaping it.

However, the results of this study have shown that around half of the German population has only limited digital health literacy. Many people are overwhelmed by the information available online. They find it difficult to assess the reliability of information and to recognize potentially economic interests. They also frequently have problems protecting their privacy and data protection and finding their way around the Internet. Thus, the difficulties come from completely different areas, which can also clearly be found outside the healthcare system. Digital health literacy is therefore a task for society as a whole and for education. Accordingly, the legislature should approach the task with a healthinallpolicies approach - interdepartmental action at the political level is indispensable.

Differences in digital health literacy. Women and people with higher incomes and education tend to have higher digital health literacy, according to the study. Younger people also have slightly higher digital health literacy. People without a chronic disease have better digital health literacy than people who have multiple chronic diseases. In general, people with very good or good health have higher digital health literacy than people with mediocre to very poor health.

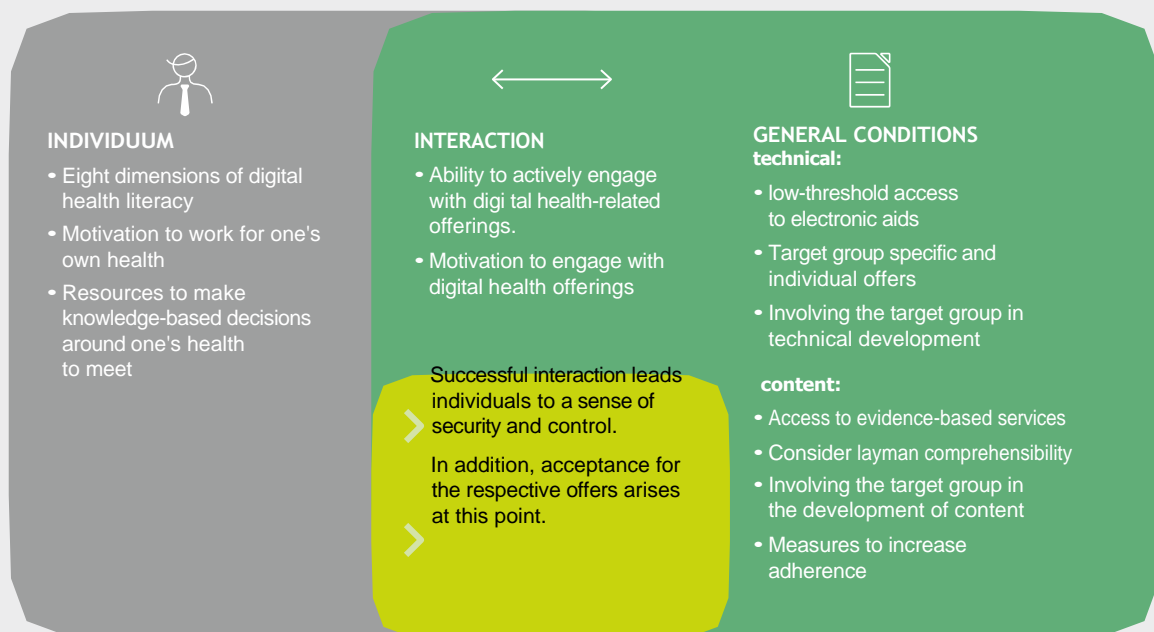
In order to increase the digital health literacy of the entire population in Germany in the future and minimize the risk of a digital divide, there are basically two possible starting points: the skills of the individual or the general framework conditions.

The approach focused purely on the individual probably falls short. The greater benefit - also in terms of efficiency and available resources - is promised by a change in the framework conditions. Current research therefore pursues the approach that, instead of the individual abilities mentioned, a fundamental capability is required. This arises in the interaction of the individual with the preconditions created by the system, such as access to functioning electronic aids or individually adapted electronic offerings (Norgaard et al., 2015). *Figure 17* shows these starting points in simplified form as a relational and extended model.

Easier access to digital helpers. The area of framework conditions must be subdivided in terms of technical requirements and content requirements. From a technical perspective, there must be low-threshold access to digital health offerings. The offerings must be specific to the target group and tailored to individual needs.

Interaction in focus

Fig. 17: Model for increasing digital health literacy



Source: Own representation and extension according to Norgaard et al., 2015

Relational extended model of an interaction of the individual with the framework conditions and individual abilities given by the system.

be directed. Another prerequisite for successful development is the involvement of the target group. From a content perspective, the offerings must be evidence-based and their effectiveness must be proven. Here, too, the target group should be involved in the content of the lay offers. Measures to increase adherence, generally speaking the motivation to stick with the program, round off the framework conditions from a content perspective.

Increasing acceptance. Individual skills on the one hand and general conditions on the other influence the degree of digital health literacy of each individual. In interaction, they jointly determine the ability to actively engage with digital health-related offerings and the motivation to engage with health offerings. If both sides are well developed, they benefit from each other by creating a feeling of security and control, strengthening patient sovereignty and ultimately leading to acceptance of the respective offerings.

It is precisely in the three most problematic areas of digital health literacy - searching for information, determining relevance and assessing reliability - that the AOK is already very involved. The health insurer certainly sees itself as having a duty to support its policyholders in their search for information online. With its mobile-optimized health navigator, various fact boxes, online coaches or various expert forums, it offers its policyholders target group-specific information from reputable sources. This information is not only evidence-based, but also understandable to laypersons and not interest-driven. In addition, the health insurance fund assumes responsibility in the National Health Literacy Action Plan. But this commitment alone is not enough, as the study results show. In addition to the health insurance funds, other players from the healthcare sector and politics are also required.

This study proves that strengthening digital health literacy is an elementary prerequisite for individual existential care. This means empowering individuals to make knowledge-based decisions about their own health. A high level of health literacy also enables citizens to decide for or against the use of digital offerings as digitally sovereign patients. In this sense digital health literacy plays a key role and is an integral component of social cohesion in our society.

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