

Summary

The Swiss population faces several challenges when it comes to health. For example, the digital transformation is permeating not only the lives and health of individuals, but also the entire health system. The population is increasingly required to take an active role and responsibility for its own health and that of other people. At the same time, more self-determination and co-determination in this area is demanded. To be able to perform the tasks associated with these challenges and to adequately deal with health information, everyone is dependent on certain abilities and skills, and hence requires sufficient health literacy. Health literacy includes the basic literacy and numeracy skills of an individual on the one hand, and the cognitive and social skills to access, understand, appraise, and apply information and services relevant to health to maintain and promote health or cope with diseases.

To investigate the health literacy of the population, a first representative study – based on the 2012 European study (HLS-EU) – was carried out in Switzerland in 2015 (HLS₁₅-CH). Building on this and within the framework of an international study (HLS₁₉) of the «WHO Action Network on Measuring Population and Organizational Health Literacy» (M-POHL) of the WHO Europe, the Swiss Federal Office of Public Health (FOPH) launched a second national survey in 2019. The aim was to monitor the changes since the first study, to identify needs for action and to raise awareness of the issue among actors in the healthcare system and other sectors, as well as among the public. The Careum Foundation together with gfs.bern conducted the «Health Literacy Survey Switzerland» (HLS₁₉₋₂₁-CH) in the period from 2019 to 2021. The aim of the survey was to find out which difficulties exist in dealing with health information and services, and who is particularly affected. It was also intended to identify possible causes of low health literacy and its consequences for the population health and the use of the health system. In addition, current challenges associated with the digital transformation, the increasingly complex healthcare system and the COVID-19 pandemic should be investigated.

As part of this study, 2,502 adults living in Switzerland were surveyed. This representative sample enables a detailed analysis of the health literacy of the population and of individual population groups. In addition to age and gender, the data is also representative for the three language regions of Switzerland. Data collection took place between March and April 2020 by means of computer-assisted online interviews (CAWI, 2,312 interviews) and telephone interviews (CATI, 190 interviews). The questionnaire consisted of a total of 90 questions. It included some questions of the Health Literacy Survey European Questionnaire consisting of 12 questions (HLS-EU-Q12), ten additional questions from the long version (HLS-EU-Q47), questions on determinants and consequences of health literacy, as well as questions on digital health literacy and navigation health literacy, which is defined as the ability to access, understand, appraise and apply the information necessary to navigate through the health system in order to receive the best possible care for oneself or for close individuals.

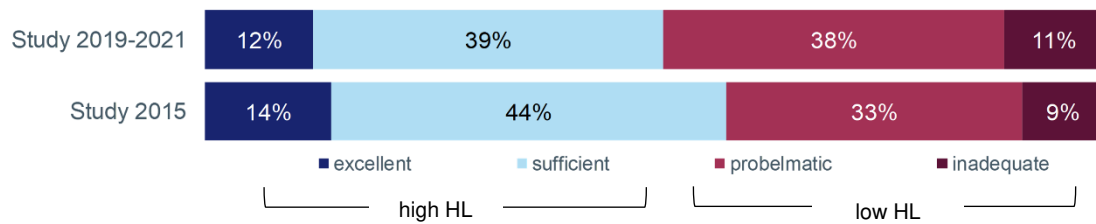
The HLS₁₉₋₂₁-CH was based on five central questions. The survey results provide answers to these questions:

How is health literacy distributed within the Swiss population? How has the situation developed since the first survey in 2015?

Almost half of the Swiss population (49 %) reports frequent difficulties in dealing with health information and has a correspondingly low health literacy (mean: 77)⁵. These difficulties in dealing with health information have slightly increased over the last five years. Accordingly, **the health literacy of the Swiss population has decreased slightly from 2015 (mean: 79) to 2020 (mean: 77).**

⁵ Health literacy ranges from a minimum of 0 to a maximum of 100 and can be interpreted as the percentage of questions rated as easy or very easy. A mean value of 77 means that the average of all respondents rated 77 percent of the 12 health literacy questions as easy or very easy and had difficulties with 23 percent of the questions.

Figure: Index of general health literacy (HL) in time comparison



Compared to 2015, in 2020 there is a decrease in the category «sufficient» health literacy (44 % vs. 39 %) and an increase in the category «problematic» health literacy (33 % vs. 38 %). In contrast, there are hardly any changes over time in the remaining two categories «inadequate» and «excellent» health literacy. However, comparisons between the newest results and those of 2015 are only possible to a limited extent, as some aspects of the survey were changed in 2020. This concerns for example an adjustment of the answer categories, reformulations of certain questions, a different type of survey and a new procedure for calculating health literacy. To enable a certain comparison, the health literacy index for 2015 was recalculated using the former data and applying the same calculation method as for the study of 2019-2021. For the recalculated index for 2015, the same questions were considered as were included in the current index.

When talking about health literacy, **four steps of information processing** can be distinguished: 1) accessing information, 2) understanding information, 3) appraising information and 4) applying information. Considering these four steps, the results show that the respondents generally have less difficulty in finding and understanding information. As in 2015, **appraising information** is rated as the most difficult step (mean value 2020: 73 vs. 2015: 72). Thus, the slight decrease in general health literacy since 2015 is rather due to the other three steps, and in particular to the application of information, as the difficulties here have increased compared to 2015 (mean 2020: 74 vs. 2015: 79). Specifically, the greatest difficulties lie in appraising and applying information from the media. Another major difficulty is accessing information on how to deal with mental health problems. In the case of specific health topics, accessing information is already considered quite difficult.

In addition to the four steps of information processing, the following **three areas of health literacy** can be distinguished: 1) healthcare, 2) disease prevention, and 3) health promotion. Here, as in 2015, the greatest challenges can be found in the area of **disease prevention**. The Swiss population shows indeed the greatest difficulties in this specific area, compared to the areas of health promotion and disease management. Comparing these results with the ones from 2015, greater difficulties can be seen in the areas of disease prevention (mean 2015: 77 vs. 2020: 70) and health promotion (mean 2015: 85 vs. 2020: 81). Therefore, the slight decrease in general health literacy since 2015 can most likely be explained by greater difficulties in these two areas. In this context, the assessment of the trustworthiness of media information is currently much more difficult than it was in 2015. In addition, health decisions based on media information and accessing information on how to deal with mental health problems have become much more difficult compared to 2015.

The results also show that a large part of the Swiss population has often difficulties in dealing with digital information and services (72 %), and accordingly has a low digital health literacy (mean: 56). The high proportion of people with inadequate digital health literacy is particularly striking (44 %). Regarding general health literacy, on the other hand, only 11 percent fall into the «inadequate» category. Furthermore, a correlation can be established between digital and general health literacy, i.e., people with a high level of digital health literacy often also have a high level of general health literacy and vice versa.

A large majority of the Swiss population also finds it difficult to deal with information that serves for the navigation of the health system. Accordingly, around three quarters (74 %) of the respondents have a low level of navigation health literacy, and half (51 %) of the population even have inadequate navigation health literacy (mean: 53). Here, too, a correlation between general and navigation health literacy can be observed, i.e., people with low general health literacy more often also have low navigation health literacy and vice versa. Navigation health literacy and digital health literacy were not surveyed in 2015.

Are there regional differences in the distribution of health literacy in Switzerland?

The present results show certain differences **regarding the language regions**, but also **with regard to the cantons**. Respondents from the French-speaking region have a slightly higher general health literacy compared to the German- and Italian-speaking respondents. These data are similar to 2015. In all three language regions, assessing the trustworthiness of media information poses the greatest difficulties. Thus, despite differences in health literacy, the main difficulties seem to be the same in all three language regions. However, a higher or lower health literacy in one language region cannot be attributed to a higher or lower health literacy in all cantons of this language region. If health literacy is examined at the cantonal level, it is noticeable, for example, that the French-speaking cantons of Vaud, Geneva and Fribourg are among the cantons with higher health literacy levels, whereas Valais and Jura tend to belong to the cantons with lower health literacy levels. This shows, on the one hand, that the language regions differ only minimally in terms of the absolute value of health literacy and, on the other hand, that **the national language** itself might not be a significant factor for health literacy. Digital health literacy and navigation health literacy also show similar average figures in all three language regions.

In contrast to the language regions, there are no differences between the **types of settlement** regarding general health literacy. Whether one comes from a rural, intermediate (which has both urban and rural characteristics) or urban region does not seem to have any influence on general health literacy. However, when looking at general health literacy at the cantonal level in this context, it is noticeable that cantons with larger cities (such as Geneva, Basel, Zurich, and Bern) tend to have a higher general health literacy level. In contrast to general health literacy, however, the type of settlement has only a small influence on digital health literacy: on average, people from urban areas find it somewhat easier to deal with digital health information and services than people from rural regions. On the other hand, the type of settlement has no influence on navigation health literacy.

How can we explain why an individual has a higher or lower health literacy?

Determinants of health literacy

This survey confirms that low health literacy is closely linked to **financial deprivation** and lack of **social support**. People with difficulties paying general bills, medical bills or medication are also more likely to have a low health literacy. Also, people who have few people supporting them, little involvement of other people and greater difficulty in getting help from neighbours on average have a lower health literacy.

Education level and **employment status** also have a small but demonstrable influence on health literacy. People with higher education, as well as students and pupils, tend to have less difficulty accessing, understanding, and appraising health information and taking decisions for their health. On the other hand, people with a lower level of education and unemployed people have considerably more difficulties in dealing with such information and thus report more often a low level of health literacy. Regarding education, it can also be shown that people with an **education in the health sector** have a slightly higher general health literacy. Nevertheless, the results show that a considerable proportion of this population group (40 %) also frequently report difficulties in dealing with health information.

The **migratory background** has only a minor influence on health literacy. In contrast to 2015 (Bieri et al., 2016), the current survey shows that people with a migratory background have a slightly higher health literacy level than those without. However, these differences are not significant. The results show, though, that **competences in the local language** are central to appropriate handling of health-related information: If a person reports communication difficulties in the local language, difficulties in coping with health information increase. Of those individuals with communication difficulties in the local language, 61 percent have a problematic, and 21 percent have a poor health literacy. The decisive factor for health literacy in this population group are therefore not the migratory background or foreign language, but the communication difficulties in the local language.

The results further confirm that low health literacy is linked to the presence of **chronic disease(s)**. It also shows that people with chronic diseases have lower self-management skills: Two thirds (66 %) of these people report low self-management skills, which are even poorly developed in slightly more than one third (36 %). People with one or more chronic diseases seem to find it particularly difficult to use information from their doctor to manage their disease.

When looking at digital health literacy, it is noticeable that – in contrast to general health literacy – **age** has a significant influence. Difficulties in dealing with digital health information and services increase with age. The greatest differences are found between 18- to 25-year-olds (mean value: 62) and those over 76 years (mean value: 40). In addition to age, **financial deprivation**, **social support**, and **self-assessed social status** also play a central role. An **education in the health sector** is also positively related to digital health literacy. Furthermore, **employment status** is correlated with digital health literacy: Retired people and housewives and househusbands have a much lower level of digital health literacy than schoolchildren and students. Finally, the **migratory background** also has an influence on digital health literacy. However, in this context, **competences in the local national language** are again decisive.

In the case of navigation health literacy, there is also a correlation between difficulties in this area and **employment status** and **age**. Here, on the one hand, students and pupils, i.e., rather younger persons, and on the other hand, retired persons, i.e., rather older persons, seem to have fewer difficulties with navigating the health system. In contrast, people between 25 and 65 years report more difficulties navigating the health system. In addition, an influence of the **financial situation**, **social support** and **social status** can also be found here: The fewer financial difficulties a person has, the more support he or she receives from his or her own environment, and the higher his or her own social status is, the fewer difficulties he or she on average has in navigating the health system. Again, an **education in the health sector** leads to a higher navigation health literacy, although many respondents in this subgroup also have difficulties with navigating the health system. **Migratory background** does not play a role here, but again **difficulties with the local language** have an influence on navigating the health system.

Consequences of health literacy

Low health literacy can have negative consequences on **health behaviour** and **health status** as well as on **the use of the health system**. The present study shows, for example, that general health literacy is related to diet, i.e., the frequency of fruit and vegetable consumption, as well as to the frequency of physical activity and the body mass index (BMI). In all cases, health-promoting behaviour is associated with a higher general health literacy. In contrast, tobacco and alcohol consumption do not seem to have a demonstrable relationship with health literacy, at least according to the current results. Nevertheless, health literacy is linked to self-assessed health status: those who have more difficulties in dealing with health information and services often feel less healthy. There is also a correlation between health literacy and the use of health care services: people with low health literacy tend to use the health system more often. Considering these correlations, however, it should be noted that no conclusive statements can be derived about cause and effect regarding health behaviour, health status and the use of medical services.

For which population groups or individual characteristics is it most urgent to work towards strengthening health literacy?

Certain population groups have greater difficulties in dealing with health information, and correspondingly a lower health literacy. Therefore, the need for action to strengthen the health literacy of these population groups can be described as urgent or a priority. Accordingly, special attention should be paid to them. These groups particularly include those with **financial difficulties**, belonging to **lower social classes**, having **little social support** and **difficulties with the local language**. Another target group are **people with chronic diseases**. Considering the results on digital and navigation health literacy, the focus should also be put on **older people**, **people with a lower level of education** and those from **rural regions**. Targeted support for these population groups contributes to increasing health equity and is also important in view of the ongoing demographic change, the increasing digital transformation, and the growing complexity of the health system.

What measures to promote health literacy can be recommended based on the study results?

With the HLS₁₉₋₂₁-CH, new data on the health literacy of the Swiss population could be obtained. The results show a clear need for action. However, the definition and prioritisation of appropriate measures

and interventions to strengthen health literacy is a strategic decision that is strongly dependent on the definition of urgency and the respective use of resources.

Based on the available findings, the priority should be to strengthen digital health literacy and navigation health literacy. The navigation and orientation in the health system and dealing with digital information contain the greatest difficulties for the Swiss population and are central for the further social and systemic development. In addition, it is important to focus more on socially and health disadvantaged population groups. Health and social inequalities in the population should be balanced out to increase equity. In doing so, target-group-tailored measures should be initiated that consider the environment of an individual as well as the social conditions. Measures and interventions are required at the structural and organisational level that enable the population in Switzerland to navigate the health system, to deal with digital health information and to apply it for their health. In principle, measures to promote health literacy should be implemented at the individual level as well as at the level of organisations and systems. This is because health literacy is not only the responsibility of the individuals themselves but is also strongly dependent on framework conditions and on the societal context.

In order to gain further insights, a systematic approach to the development and implementation of measures to strengthen health literacy must be established. To sustainably improve the health literacy of the population, it is also necessary to measure health literacy not only selectively but repeatedly, and to establish a regular monitoring. Accordingly, the necessary steps should be taken in this direction.

Recommendations

Based on the survey results, several recommendations, or directions for the future (further) development of measures and interventions as well as next steps with regard to strengthening the health literacy of the Swiss population can be derived. These recommendations are directed at policymakers, education, practice and research.

Nr.	Recommendation
1	Need for a (national) overall health literacy strategy
2	Focus on specific target groups and target-group-oriented approaches
3	Facilitating the use of digital health information
4	Changing individual and especially structural conditions
5	Continue proven programmes and projects and use synergies to promote further measures at the local, cantonal, and national level
6	Simplify orientation and navigation in the health system
7	Strengthen the self-management competences of people with chronic diseases
8	Involve the education system in strengthening health literacy
9	Targeted interprofessional education and training of health professionals in health literacy
10	Extension of research on and continuation of a regular monitoring of health literacy