



# **Short Summary**

# Health Literacy in Times of Societal Uncertainty

Results of the Third Health Literacy Survey Germany (HLS-GER 3)

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#### Introduction

Health literacy – defined as the ability to manage health-related information (Sørensen et al. 2012) – is a subject of research in Germany for around 15 years. First empirical findings have been available for about a decade. Meanwhile, a fairly broad field of research has developed. However, it largely consists of various studies. Mostly they provide snapshots. Comparative analyses that allow an assessment of the development of health literacy remain rare.

In light of the societal crises during the last years, and the accompanying uncertainties, such analyses are highly relevant – as demonstrated not least by the COVID-19 pandemic and subsequent crises. Especially in such times, it is crucial to be able to deal confidently with health information and translate them into appropriate action. Health literacy is also indispensable for self-determined living and for maintaining health in modern, complex societies. At the same time, the growing flood of information, along with the spread of mis- and disinformation, makes dealing with health information more difficult and hinders acquiring health literacy.

On this basis, the third Health Literacy Survey of the population in Germany (HLS-GER 3) examines the effects of these developments on health literacy and asks how health literacy in Germany has evolved in recent years. For this purpose, new data on health literacy in Germany were collected and analyzed within HLS-GER 3 and are compared with the study conducted five years earlier (HLS-GER 2).

Specifically, the study provides:

- a renewed analysis of general health literacy, digital health literacy (DHL) and navigational health literacy (NHL) in Germany,
- a comparison of the HLS-GER 3 to the previous HLS-GER 2,
- a thematic expansion through the development and application of a new instrument for measuring disaster health literacy (DIS-HL),
- an analysis of regional differences in health literacy based on two supplementary surveys conducted in Baden-Wuerttemberg and North Rhine-Westphalia,
- integration into the international Health Literacy Survey HLS<sub>24</sub> of the WHO Action Network on Measuring Population and Organizational Health Literacy (M-POHL).<sup>1</sup>

#### **Methods**

In terms of the concept and definition of health literacy, the study follows the first European Health Literacy Survey (HLS-EU; Sørensen et al. 2012).

The study is based on a representative cross-sectional survey of the German-speaking resident population aged 18 and older. The survey was conducted using paper-assisted oral-personal interviews (PAPI) by the Allensbach Institute for Public Opinion Research from October 2024 to January 2025. The sample was drawn using the quota method. For HLS-GER 3, a total of 2,648 people were included in the analyses. The complementary survey – HLS-GER 2 (Schaeffer et al. 2021) – was conducted in December 2019 and January 2020, 2,151 respondents could be included. Both studies follow the same methodological approach.

Health literacy was measured using the German version of the HLS<sub>19</sub>-Q47. Health literacy levels were calculated based on sum score of the dichotomized items, which is standardized

The regional study results are not the focus of this report and will be published elsewhere. The same applies to the findings of the international HLS<sub>24</sub> study.

to the range of 0-100 (The  $HLS_{19}$  Consortium 2022). As cut-off points for the health literacy levels, cutting points 50-66.67-83.33 were applied. The resulting four categories are labelled "inadequate", "problematic" (referred to as "low" health literacy), "adequate" and "excellent" (referred to as "high" health literacy). The specific health literacies DHL, NHL, and DISHL were analyzed using the same approach.

# Main results of the HLS-GER 3 – General Health Literacy

Over the past five years, health literacy in Germany has improved by 3.1 percentage points. According to the new study, HLS-GER 3, 55.7% of the German population have low health literacy. In the previous study, HLS-GER 2, the figure was 58.8%. Specifically, in HLS-GER 3:

- 18.1% of the population in Germany have excellent, and 26.3% sufficient health literacy (compared to 14.7% and 26.5% previously)<sup>2</sup>,
- 28.6% (30.4%) have problematic health literacy, and 27.1% (28.4%) inadequate health literacy.

### 1. Distribution of health literacy in the population

Health literacy continues to be unequally distributed across the population. Groups that disproportionately show low health literacy include people:

- with low social status: 73.3% (71.9%),
- experiencing financial deprivation: 72.3% (72.9%),
- with a low level of education: 71.1% (78.3%),
- aged 65 and older: 62.8% (65.1%),
- with multiple chronic conditions: 61.6% (65.1%).

A very positive development in health literacy is observed among people with a low level of education: the proportion of those with excellent or sufficient health literacy has increased by 7.2 percentage points compared to 2019/2020. Health literacy has also slightly improved among people with multiple chronic conditions and among those aged 65 and older (+3.5 percentage points and +2.3 percentage points, respectively).

However, not all groups have benefited from this positive development. Among people with low social status, health literacy has worsened in the meantime. For people experiencing financial deprivation, it has remained almost unchanged.

At the same time, there are signs of a widening social divide. While health literacy has deteriorated among people with low social status and stagnated among those suffering from financial deprivation, it has improved by 1.3 and 7.1 percentage points respectively among people with high social status and sufficient financial resources.

# 2. Steps of information management

Of the four steps of information management (access, understand, appraise, apply), the appraisal of information is still perceived as the most difficult. The application of health information continues to be the second most difficult:

The results of HLS-GER 2, which was conducted from December 2019 to January 2020, are shown in parentheses.

- 72.6% (74.9%) of respondents report great difficulties in evaluating health information and therefore show low health literacy in this area.
- When it comes to applying health information, 52.7% (53.7%) have low health literacy.
- Finding health-related information poses considerable difficulties for 46.7% (48.5%) of respondents, and understanding information for 44.9% (47.7%).

A comparison of the two studies shows that slight improvements have occurred across all steps of information processing. The greatest progress can be observed in understanding health-related information, where health literacy has improved by 2.8 percentage points.

# 3. Health literacy domains

Among the three domains examined (healthcare, disease prevention, and health promotion), respondents find it most difficult to deal with information related to health promotion. This is followed, at some distance, by disease prevention and, lastly, healthcare.

- In the domain of health promotion, the share of people with low health literacy is highest at 64.5% (67.7%).
- In the domain prevention, 52.7% (54.8%) have low health literacy.
- In the domain healthcare, the figure is 43.9% (45.2%).

The improvement in health literacy observed when comparing the two studies is most evident in the domain health promotion. Here, health literacy has increased by 3.2 percentage points. Nevertheless, dealing with information in this domain continues to present the greatest challenges for the population.

### 4. Possible outcomes of health literacy

Low health literacy is linked to several health-related outcomes. It is associated with less healthy dietary and physical activity behaviors, poorer self-reported health status, more sick days, and more frequent use of the healthcare system.

- 48.3% of people with excellent health literacy consume fruit and vegetables daily, compared to 27.6% of those with inadequate health literacy.
- 55.6% of respondents with inadequate health literacy reported at least six sick days in the past 12 months; among those with excellent health literacy, the figure is 41.0%.
- Low health literacy is also associated with more intensive use of healthcare services. For example, 24.0% of respondents with inadequate health literacy had six or more general practitioner visits in the past year, compared to 9.8% in the group with excellent health literacy. A similar pattern is seen in the use of emergency services: 30.7% of people with inadequate health literacy reported using such services in the past two years, compared to 17.0% of those with excellent health literacy.

A comparison of the two studies shows that some associations – for example, between health literacy and self-reported health status – have become slightly more pronounced.

#### 5. Health information behavior

Interest in health information remains high: 80.6% of respondents fully or rather agree with the statement, "I want to know everything about my health."

General practitioners remain the preferred source of health information: 78.2% (78.5%) of the population would most likely consult them if seeking information on health topics or illnesses, followed by websites (49.0%; 2019/2020: 44.9%) and specialists (41.5%; 2019/2020: 42.2%).

Respondents particularly express a need for further information on treatment alternatives (46.5%; 47.0%), the quality of doctors (42.4%; 39.9%), and their rights as patients (41.2%; 39.9%). There is an increase in the proportion of respondents seeking information on the electronic patient record (25.4%; 2019/2020: 17.3%) as well as on vaccination recommendations (21.7%; 2019/2020: 17.5%).

# 6. Use of digital health information sources

The use of digital health-related information sources (websites, social media, health apps) has increased markedly in recent years. Websites for seeking health information are now used by 82.5% of the population, 18.1 percentage points more than in HLS-GER 2 (64.4%).

Currently, 17.0% of the population use applications based on artificial intelligence to seek health information. 16.0% of the population use the electronic patient record.

Population groups with low health literacy tend to use most digital information resources less frequently than the general population. However, usage among these groups also shows an upward trend.

# 7. Digital health literacy

Digital health literacy (DHL) has improved the most: the proportion of people with low DHL has decreased from 75.8% to 71.1%. Nevertheless, DHL remains considerably lower than general health literacy.

DHL is also distributed unequally across socioeconomic strata. Groups with particularly low DHL include people with low social status: 85.6% (80.2%), those aged 65 and older: 84.9% (86.0%), people with low education: 81.8% (86.7%), individuals experiencing financial deprivation: 80.6% (83.5%), and those with multiple chronic conditions: 78.4% (77.8%).

Among people with a migration background, DHL has improved by 6.5 percentage points, and among those with low education by 4.9 percentage points.

For DHL, a widening of the social gradient is also evident: while DHL has declined by 5.4 percentage points among individuals with low social status, it has improved by approximately 6.0 percentage points among people with moderate and high social status. People with high education, no financial deprivation, and aged 18–29 have benefited more than those with low education, financial deprivation, and those aged 65 and older.

#### 8. Navigational health literacy

Navigational health literacy (NHL) has remained almost unchanged and continues to be at a very low level. According to HLS-GER 3, 82.0% of respondents have low NHL, compared to 82.8% in HLS-GER 2.

Population groups with particularly high proportions of low NHL include people with low social status: 93.1% (89.4%), individuals experiencing financial deprivation: 92.6% (92.6%), people with low education: 87.2% (91.5%), older adults: 86.4% (85.0%), and those living with multiple chronic conditions: 85.1% (86.9%).

Among people with low education, NHL has improved by 4.3 percentage points. In contrast, NHL has tended to decline among individuals with low social status, as well as among people aged 65 and older. For younger adults (18–29 years), NHL has improved. In other groups with comparatively high proportions of low NHL, it has remained largely unchanged.

### 9. Disaster health literacy

The share of people with low disaster health literacy (DIS-HL) is also very high at 81.7%.

The highest proportions of low DIS-HL are observed among people aged 65 and older: 90.3%, individuals with low social status: 89.0%, people experiencing financial deprivation: 88.9%, people with disabilities: 88.5%, those with low education: 87.0%, and individuals with multiple chronic conditions: 86.9%.

#### 10. Conclusion

Overall, HLS-GER 3 shows improvements in health literacy across many areas. At the same time, some negative trends are apparent, such as a widening social gradient, stagnation in navigational health literacy, and particularly large difficulties in the newly assessed disaster health literacy. It should also be noted that more than half of the German population still show low health literacy. Thus, this remains a serious public health issue that continues to require significant attention.

#### Literature

- Schaeffer, D., Berens, E.-M., Gille, S., Griese, L., Klinger, J., de Sombre, S. et al. (2021). Gesundheitskompetenz der Bevölkerung in Deutschland vor und während der Corona Pandemie: Ergebnisse des HLS-GER 2. Bielefeld: Interdisziplinäres Zentrum für Gesundheitskompetenzforschung (IZGK), Universität Bielefeld. <a href="https://doi.org/10.1055/a-1560-2479">https://doi.org/10.1055/a-1560-2479</a>
- Sørensen, K., van den Broucke, S., Fullam, J., Doyle, G., Pelikan, J., Slonska, Z. et al. (2012). Health literacy and public health. a systematic review and integration of definitions and models. BMC Public Health, 12 (1), 80. <a href="https://doi.org/10.1186/1471-2458-12-80">https://doi.org/10.1186/1471-2458-12-80</a>
- The HLS<sub>19</sub> Consortium of the WHO Action Network M-POHL. (2022). The HLS<sub>19</sub>-Q12 Instrument to measure general health literacy (scoring based on dichotomized items). Updated version July 2023. Factsheet. Vienna: Austrian National Public Health Institute.

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