





## **Health Literacy in the Norwegian Population**

**English summary** 

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# **Summary**

Norway has for the first time conducted a survey to assess health literacy in a large and representative sample of the population. The results show that a significant proportion of the population faces a variety of challenges in dealing with health information. This has implications for the health of individuals and society's expenditure relating to health.

#### **Background**

On behalf of the Norwegian Ministry of Health and Care Services, the Directorate of Health has conducted a national survey of the population's health literacy in partnership with Oslo Metropolitan University and Inland Norway University of Applied Sciences. The survey forms part of an international collaboration initiated by the WHO-EHII affiliated network *Action Network on Measuring Population and Organisational Health Literacy* (M-POHL) concerning implementation of the *Health Literacy Population Survey 2019–2021* (HLS<sub>19</sub>). The aim of M-POHL and HLS<sub>19</sub> is to provide knowledge to support the differentiated work of government agencies relating to the development of targeted measures to raise the level of health literacy amongst the population, and to adapt the health service to meet the needs of people with different levels of health literacy.

#### **Implementation**

In Norway, we opted to use the full comprehensive International Health Literacy Population Survey Questionnaire (HLS<sub>19</sub>-Q47), which consists of a base of 47 questions. The survey in Norway also included various scales for measuring digital health literacy (including digital health information, general digital skills, and the use of digital health services), expertise in navigating the health service, and skills in communicating with healthcare professionals. The survey also collected health economics variables to estimate parameters such as productivity and health costs.

Data was collected from two random and representative samples comprising a total of 6,000 respondents. The questionnaire was conducted by a Norwegian market research agency, which used the Computer-Assisted Telephone Interviewing (CATI) method. Participating countries could choose between CAPI<sup>1</sup>, CATI and CAWI<sup>2</sup>/online. Most countries chose CAPI.

#### The general health literacy of the population in light of "the patient's health service"

We have reported basic descriptive statistics for all 47 questions in HLS<sub>19</sub>-Q47. Based on more advanced psychometric analyses, we have proposed various subscales for each domain of health literacy (health promotion, disease prevention and healthcare). To meet strict measurement requirements, these three

<sup>&</sup>lt;sup>1</sup> Computer-Assisted Personal Interviewing (CAPI)

<sup>&</sup>lt;sup>2</sup> Computer-Assisted Web Interviewing (CAWI)

measurement scales are based on a sample of 24 of the 47 questions in HLS<sub>19</sub>-Q47. We have also proposed a scale for general health literacy (GHL) based on 12 of the questions (HLS<sub>19</sub>-Q12-NO).

We have also used estimates of "standard error of measurement" to estimate confidence intervals, based on this calculated cut-off score for significantly different "health literacy levels", and estimated the proportion of the population at each level. This partly "instrumentalist" approach is both transparent and verifiable.

When we operate with three levels of general health literacy as measured by HLS<sub>19</sub>-Q12-NO, 20% of the population is at the highest level (level 3) and 46% is at level 2. When we link the typical "proficiency" associated with each health literacy level to the "difficulty" associated with the items, we interpret the results as indicating that people at level 2 and above appear to possess sufficient health literacy. This conclusion was made based on the concept of "the patient's health service", in which users of the health service must posses the knowledge and skills to "make choices" and "actively take part in decisions" concerning their own health. For example, respondents at level 2 typically find it easy to "understand information on food packaging" (able to make healthy choices), and respondents who score in the upper range of level 2 also find it "easy" to "assess the advantages and disadvantages of different treatments" (choose between different treatment options). It follows that 33% of the population scores at or below level 1, and that many of these may lack the key knowledge and skills necessary to realise "the patient's health service". When we measure "general health literacy" using HLS<sub>19</sub>-Q12-NO, we do not find any clear overall differences between the genders, age groups, level of education or persons with and without long-term illness, but women and those with an education above upper secondary level may have slightly better skills.

#### A digitally ready population?

Competence in searching for *digital health information* is linked to gender, age and level of education. On average, women claimed to have a higher skill level than men, and those with an education above upper secondary level claimed to have a higher skill level than those with a lower education. Furthermore, the >65 years age group self-reported a lower skill level than other groups.

General digital skills are clearly linked to gender, age, level of education and long-term illness. On average, men claimed to have a higher skill level than women, those with a long-term illness claimed to have weaker skills than others, and those with an education above upper secondary level claimed to have higher skills than those with a lower education. In relative terms, the >65 years age group self-reported having very low overall digital skills.

The ability to use *digital health services* is linked to age, level of education and long-term illness. On average, the >65 years age group, those with long-term illnesses and those with a low education, claimed to have weaker skills than other groups. This means that groups in the population that use health care services more frequently may be less well-prepared to use digital health services.

Digital health literacy, as expressed through competence in searching for *digital health information*, the possession of *general digital skills* and the readiness to adopt *digital health services*, thus varies according to gender, age, level of education and long-term illness.

#### Challenges in navigating the health service

By "navigating the health service", we mean having an overview of the structure of the health service and how it works (system level) and being able to decide what specific services one needs and wishes to use (organisational level). A significant proportion of the population responded (very) difficult to many of the questions concerning "navigating the health service". Almost 20% of the population scored "below level 1," which means that they face challenges, e.g. assessing the type of health service they need when they have a health problem and whether this health service will meet their needs, and deciding which health care service they should choose. Those "below level 1" will also face challenges in finding the right people at health institutions, and they typically find it difficult to work out how user organisations could help them do so. More than 50% of the population does not reach "health literacy level 2". This level is characterised by the ability to find information concerning the quality of specific health services, and to find out what rights they have as a patient and user of health services. Viewed in light of "the patient's health service", in which the users of the health services themselves will play an active role, health services must take into account the fact that many people in the population face challenges when they encounter the health service.

#### Ability to communicate with healthcare professionals

Communicating with healthcare professionals means being able to actively engage in a dialogue with healthcare professionals in order to make good decisions concerning health. The majority of the population believe that they have mastered communicating with healthcare professionals and actively participating in the dialogue – only 12% appear to experience challenges in this context. Skills in communicating with healthcare professionals are linked to level of education and long-term illness. On average, those with a long-term illness claimed to have weaker skills than others, and those with an education above upper secondary level claimed to have higher skills than those with a lower education. The results indicate that some people in the 18-24 age group may face challenges when interacting with healthcare professionals.

#### Health costs and socio-economic parameters

Both general health literacy and each aspect of health literacy (i.e. healthcare, disease prevention and health promotion) vary with the number of GP visits and with health-related quality of life as measured using the instrument EQ-5D-5L. With increasing health literacy, health-related quality of life increases and the number of GP visits decreases. The number of health-related days of absence from work appears to be linked to the "healthcare" and "health promotion" domains, rather than "disease prevention".

#### **Possible implications**

Significant proportions of the population find it difficult to critically assess health information and assess the advantages and disadvantages of different treatment options. To ensure the success of "the patient's health service" and shared decision-making, there may be a need for more readily available quality-assured and reliable digital information concerning health and disease, as well as the advantages and disadvantages of various treatment options. In order to be better equipped, schools can improve the ability of pupils to recognise and interpret scientifically based health information, and the health service can adapt the service provision and information to people's individual health literacy level (ref. organisational health literacy).

Mental health is a significant public health challenge in Norway, and many people report encountering challenges in finding information concerning how mental health problems can be tackled. There may therefore be a need for more, better adapted and more readily accessible information concerning mental health challenges.

We use the term "digital health literacy" as a collective term for being able to search for *digital health information*, being prepared to use *digital health services* and possessing *general digital skills*. International surveys which have assessed the digital skills of pupils indicate that, in Norway, girls outperform boys. However, in our survey, men reported better *overall digital skills* than women. This may be because we asked about technical skills, such as downloading and installing software, while school surveys test somewhat other skills. The ability to search for *digital health information* is linked more to what the school surveys test, and women claimed to have a higher skill level than men here.

General digital skills are linked to gender, age, level of education and long-term illness. One challenge is that the groups in the population that use health care services more frequently appear to be less well-prepared to use digital health services.

A significant proportion of the population responded (very) difficult to many of the questions concerning "navigating the health service". In light of "the patient's health service", in which the users themselves play an active role, the health services must take into account the fact that many people face challenges in getting the right care at the right time.

Overall, the results set out in the report point to development opportunities (impact goals), the impact that specific findings may have on future health policy formulation and national public health initiatives (both universal and targeted measures), and the prioritisation of research aimed at groups with low health literacy. The report may also provide a basis for assessing organisational and communication-related changes in the Norwegian health services in order to strengthen and further develop health communication between institutions and individuals. Such adaptations are a prerequisite for providing an equitable health service and achieving the goal of "the patient's health service".

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