



OUR NEED IN SOCIETY FOR

# E-HEALTH GUIDES

REPORT ON THE RESULTS OF THE  
DESKTOP RESEARCH AND THE RESULTS OF  
THE FOCUS GROUPS

# Imprint

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# 1 Introduction

This report summarizes the key findings of the completed two-fold analysis that include desk research and field research, both based on consortium contributions from national research and developed within the project E-Health Literacy (HEAL).

The project is funded by the Erasmus+ cooperation partnerships in adult education and is implemented in Germany (Stiftung Digitale Chancen), Lithuania (Asociacija "Viešieji interneto prieigos taškai"), Greece (IASIS), Slovenia (Simbioza Genesis, socialno podjetje) and Switzerland (Ynternet.org).

The report refers to the objectives, tasks and pillars of the project and stand for a part of **PR1 –The Repository**; which was broken down into the following activities:

- production of research framework and tools
- desk and field research in each partner country

The PR1 activity has been jointly formed by the project coordinator (Stiftung Digitale Chancen), and by activity leader (Simbioza Genesis, socialno podjetje) and agreed upon and executed by all project partners.



## 1.1 Basic terminology

**Digital literacy:** skills required to achieve digital competence, the confident and critical use of information and communication technology (ICT) for work, leisure, learning and communication.

**Health literacy:** degree to which individuals have the capacity to obtain, process and understand basic health information and services needed to make appropriate health decisions.

**E-health literacy (or digital health literacy):** the ability to seek, find, understand, and appraise health information from electronic sources and apply the knowledge gained to addressing or solving a health problem.

**Telemedicine:** Telemedicine is the practice of medicine using technology to deliver care at a distance. A physician in one location uses a telecommunications infrastructure to deliver care to a patient at a distant site. This is a part of eHealth.

**E-Health:** e-Health tools or solutions include products, systems and services that go beyond simply Internet-based applications. They include tools for both health authorities and professionals as well as personalised health systems for patients and citizens. Examples include health information networks, electronic health records, telemedicine services, personal wearable and portable communicable systems, health portals, and many other information and communication technology-based tools assisting prevention, diagnosis, treatment, health monitoring, and lifestyle management.)

Digital health literacy targets the area of skills and competences development that intersects with the need for health-related information and its relation to digital skills, while the term e-health refers to existing services, systems and applications available to users, in the public and private spheres.

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=LEGISSUM:c11090>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7889072>

<https://doi.org/10.2196/jmir.8.2.e9>

<https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52004DC0356:EN:HTML>



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## 1.2 Briefly about the general topic

There are two main circumstances we can agree on: (1) the digital transformation has influenced and changed all areas of society and (2) the advances in medicine lead to high life expectancies in European societies. In the context of sustainable social development, the question of how and in what ways the European society will respond to the new societal challenges that will arise as a result of demographic changes and the accelerating and unstoppable rapidity of ICT development, has been on Europe's political agenda for a long time.

To tackle this challenge, Europe needs to make efficient and fair systemic changes in all areas of societal life, and health is certainly one of the priority areas. The inevitable digitization of the health system is therefore a key to tackle the challenges.

The successful transformation of health and care systems heavily relies on digital health literacy of citizens – it is a crucial component and must be acknowledged and included in the development of any e-Health policies. In this process, it is paramount that no one is left behind by ensuring that everyone has access to the the skills and knowledge to use digital technologies and reduce health inequalities.

An inclusive digital society means ensuring that all citizens have full access to the digital services and that they become equal co-creators of the development of the digital society. With the help of ICT technologies, all citizens (through all stages of life) can - if they know how to use them - become more actively involved in society and can live a better quality of life.

ICT is unquestionably one of the most powerful and effective instruments to achieve and maintain high quality of health and social care. Although the use of ICT is already integrated into the health systems of European countries, in order to enable citizens to better self-manage their health and, as a consequence, increase their quality of life, the gap between those who and those who do not benefit from the digitalization of the health area is unfortunately still increasing and the pandemic has only highlighted this issue.

- <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52004DC0356:EN:HTML>
- [https://eurohealthnet.eu/wp-content/uploads/documents/2019/190909\\_PolicyPrecis\\_DigitalHealthLiteracy.pdf](https://eurohealthnet.eu/wp-content/uploads/documents/2019/190909_PolicyPrecis_DigitalHealthLiteracy.pdf)



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## 1.3 Main objectives of the HEAL project

First and foremost, the project's objective is to have an impact on individuals' usage of e-Health applications and services in a way that will benefit their health and well-being, primarily focusing on adult beneficiaries of low socioeconomic status, elderly, members of marginalized ethnic and minority groups, since these groups often have limited access to relevant health information, especially information widely available on the Internet.

*„Despite the concept of eHealth literacy being introduced in 2006, its potential role in empowering individuals has not been realized. Without meeting the eHealth literacy needs of disadvantaged groups, adoption of eHealth interventions is likely to be low, resulting in ineffective interventions.“*  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7453328/>

*„Vulnerable groups, including low-income people, some older adults, and people facing language and cultural barriers, may face greater challenges in utilizing digital tools.“*  
<file:///C:/Users/HP/Downloads/Policy-brief-42-1997-8073-eng.pdf>

In order to ensure the effective use of e-Health applications, platforms and services. among the identified beneficiaries it is a key objective to address professional communities – including non-profit community support organizations, local government agencies, libraries, retirement houses etc., since in this project peer-to-peer educators, librarians, social workers, leaders, activists, family care takers etc. are here defined as the second target group (multipliers).

*„Society needs to invest more in technology education and provide continuous support, consultations and learning of best practices in the new technologies at libraries, education centres, seniors' union facilities and the like.“*  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7453328>

*„Community organizations and community health workers may play a key role in providing training for older adults and other marginalized groups. Support from health workers, as well as training to improve digital health literacy, may also be needed to facilitate access to digital health solutions.“*  
<file:///C:/Users/HP/Downloads/Policy-brief-42-1997-8073-eng.pdf>



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While the professionals working there are well acquainted with the identified project beneficiaries and their daily circumstances and know the needs of these people, on the other hand, they themselves often lack the knowledge and skills to help and support vulnerable groups with relevant health information.

Over the course of the project, this core group of targeted professionals, will acquire new digital health competencies and skills in using ICT for learning about health and healthcare, as they will participate in a blended training course in order to later use what they have learned and reach more and more people in need of improving skills on digital health.

In order to have the mentioned impact, the project HEAL will develop three tools to increase digital health literacy:

- 1) Repository to collect the latest developments in the area of e-health (PR1)
- 2) Digital Health Literacy Training Kit (PR2)
- 3) The European Digital Health Netiquette Campaign (PR3)

## 1.4 Recognized needs on the level of the EU

People who are digitally health literate can take a more active role in managing their personal health and care. But European citizens still face the problem of finding, understanding and acting accordingly to verified digital information on all levels, including the field of health and wellbeing. According to the European Commission eHealth Action Plan 2012-2020, one of the main barriers regarding e-health is precisely the lack of awareness, confidence and skills to find, understand and appraise online health information - and apply this knowledge to make safe health decisions and to trust e-health solutions.

It is needless to say that the consumer of e-health services – and thus the project's beneficiaries – are a very homogeneous group with diverse realities of life and learning needs. They vary for example in age, learning experiences, experiences in the health system and affinity to digital tools.

It is also necessary to take into consideration: age-related barriers, such as physical disabilities (visual handicaps, cognitive defects, limitations of motor skills...), geographical differences (broadband coverage etc.), the socio-economic gaps, which include differences in level of education, occupation, income etc and cultural backgrounds, which all may influence their ICT usage, and consequently also the use of e-health services and products.

[https://health.ec.europa.eu/publications/ehealth-action-plan-2012-2020\\_en](https://health.ec.europa.eu/publications/ehealth-action-plan-2012-2020_en)

*„Any single digital health tool is unlikely to be a one-size-fits-all solution, and successful use of digital health tools and practice requires attention to the needs of different groups, recognition that other tools may be more appropriate for some people.“*

<file:///C:/Users/HP/Downloads/Policy-brief-42-1997-8073-eng.pdf>





In its report, the European Economic and Social Committee (EESC) supports the European Commission's efforts to give digital health literacy a high priority in the e-Health agenda, pointing out that different generations need different approaches to improving digital health literacy (depending on the extent to which they use digital tools in their daily lives) and stressing the need to provide specific education and training.

Therefore, through the course of the project a Digital Health Literacy Training Kit (PR2): a training course empowering multipliers to support individuals in using e-health applications and services, will be developed, which will among other be based on the findings and outcomes of (PR1) and already developed tool – *Repository* - which contains the latest developments in the area of e-health in the project partner's countries and includes not only existing Open Education Resource materials from all partner countries but will be Pan-European. The repository will serve as a basis for promoting e-health literacy across Europe.

Before the outbreak of COVID-19 there was a significant gap when it came to development and implementation of e-health among European countries. The COVID-19 epidemic has shown the need for health services independent of place and time and thus triggered a real revolution in the use of information and communication technologies and, consequently also, in the use of digital health technologies - the use of which has gone from being an interesting prospective option to an urgent requirement and practice.

<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52019IE0067&from=GA>

*„While some of the digital health tools were novel (in particular contact-tracing apps), much of the underpinning technology that has been used during the pandemic already existed.“*

<file:///C:/Users/HP/Downloads/Policy-brief-42-1997-8073-eng.pdf>

But reluctance, fear of data insecurity and a lack of media literacy stopped many citizens from using the apps and other digital health tools. While most of the 16 to 74 year olds in the EU used the internet to receive or send emails during this time, 55% looked for health information online and 13% used health services via a website or an app. The two last numbers are quite low considering that they were collected during a worldwide pandemic. One could expect that more people used e-Health services especially while staying at home. Knowing that often fear of being digitally tracked, misinformation and a general lack of digital skills are the reasons for this reluctance in using e-Health services, there is a need to raise awareness and provide digital skills to all citizens in Europe.

And on the other hand, this rapid and sudden transition has also raised and deepened further inequalities in the use of eHealth, especially for vulnerable groups, who have become even more isolated and excluded.

<https://ec.europa.eu/eurostat/web/products-eurostat-news/-/ddn-20210126-2>

### The HEAL project aims to:

1. *reduce gaps in digital health literacy that can lead to social exclusion;*
2. *raise digital skills in the field of health literacy also for more vulnerable groups of the population of the European Union;*
3. *raise awareness of the importance of e-health literacy, which can influence better social and health care;*
4. *raise awareness of the importance of security and information literacy (media, devices, e-health services).*

## 2 PR1: Brief presentation main objectives of the repository

Taking into an account the national, regional and local differences between the participating partner countries, the creation of the - Repository (PR1) - was the starting point and the basis for finding a common denominator to create further projects outputs that will promote digital health literacy and enable individuals to benefit from e-Health services and and tools to their full extent.

The Repository as a collection and selection of resources regarding e-health literacy and one of the first outputs of The HEAL project will in the course of the project:

- contain latest and important materials (articles, webpages, apps, training resources, good practices etc.) in languages of partner countries and English; some materials will also be in various other languages, depending on their origin
- contribute to both the awareness and the development of community of practice at our open wiki page, which will be public available and will serve as an open, web based, collaborative digital health literacy tool for both project target groups the trainers and trainees.

In order to arrive at the repository, one aim of PR1 is to establish a methodological and operational framework to choose and collect best practices through desk and field research in the partner countries. The results of the research lead to the development of the national reports and also set the basis for the second output of Digital Health Literacy Training Kit (PR2).



## 2.1 Production of research framework and tools and desk research

A research framework was developed that regulated the desk and field research of the partner countries. The desk research followed these two key questions:

- (1) What are the current digital health skills and training needs in partner countries?
- (2) What are the existing trainings, documents and other Open Education Resources (OERs) available in the participating countries?

The established framework (e.g. analytical matrixes, fact sheet templates e.g.) facilitated partners' collection process and presentation of the information and resources. Resources were divided in learning methods for adults and information about e-health literacy in the wider sense.

The framework also included the process, questions and standards for the focus groups.

## 2.2 Recognized needs of the in partners countries – desk research

### SLOVENIA

*Simbioza Genesis, social enterprise has been working with elderly on ICT field for more than a decade – empowering them to use ICT in daily basis in their everyday life. Upon our experience we can conclude that elderly in Slovenia are more likely to have basic or no digital skills at all, more likely to live in remote/rural areas (without broadband coverage), and last but not least more likely to be unable to pay for computer, smartphone and internet.*

*In November 2021 we surveyed our elderly participants (100 participants) with advanced digital skills about which online services (e-shopping, e-health, e-banking, e-government etc.) they use or would like to learn how to use them. The results of the survey were not a big surprise. Only 30% of them use online services. As for the low use of e-services in general, the most frequent answer was "concern of abuse of personal and especially financial data". The survey showed rather high percentage (55%) in usage of internet for searching information about medical issues (disease, medical treatment, health professionals etc.), but the usage of e-platforms (public/private), app etc was among the lowest. The most common answers of non-usage were that it is either "too complicated" or "too difficult to find". Despite their receptive, the results of the survey showed that they still often have difficulty engaging in internet-based health information seeking. This also suggests that elderly who are less digitally literate will face even more difficult barriers when searching for health information on the internet or using e-health platforms, apps, services etc.*

*All of this should in case of Slovenia be taken in consideration, when we are talking about the premise elderly – digitalization and consequently- low average of usage of the e-services among them also e-health services and products. In order to ensure the effective use of e-health applications, platforms, etc. it is therefore essential to adopt appropriate strategies and interventions that will help elderly to use them effectively. Easy access to relevant training providers should also be ensured. Although training alone is not sufficient, especially due to the complexity of e-health web, apps content, which prevents successful use by people not only with lower abilities, neither does not relatively easy access to these e-health services, apps, which must necessarily include technical support and above all relevant, meaningful and comprehensible content that all users will understand.*



## GERMANY

The digital health area in Germany can be divided into the field of private tracking and sensor services – mostly “sport and lifestyle” or “health and fitness” apps (categories in app stores) – and the field of regulated and certified e-Health services. The HEAL project considers both fields relevant and will include them in the activities and outcomes. But because that apps and services that are regulated is the exception from the other partner countries, the result of the desk research will focus primarily on this.

In Germany, the e-prescription will be implemented gradually in the next months. The patient can decide whether they want to receive the e-prescription in an app or in paper form. The difference to the former paper prescription is that the new one contains qr-codes that can be scanned to order medication online.

The same applies to the “electronic certificate of incapacity for work” (eAU, sick certificate). It will be implemented in 2023. At the moment, the system is piloted. With the eAU, the doctor transfers the sick certificate directly to the insurance. The certificate for the employer will still be handed to the employee on paper.

The “electronic patient file” (ePA) is a digital application in which patients / insured people file their health data. When given the legitimation, also doctors can access the file and read or place data. The basic idea is that people are the owners of their data thus all citizens will receive a file and must opt out if they do not want to have the file. It is being implemented gradually in Germany since 2021.

The data transfer of the e-prescription, the ePA and the eAU runs via the “telematics infrastructure”. The telematics infrastructure (TI) is the data highway of the German healthcare system. It is designed to enable fast and secure communication between doctors, psychotherapists, hospitals and others. It is hosted by the gematik – an organisation of which the federal ministry of health (BMG) is the majority shareholder.

“Digital health applications” (Digitale Gesundheitsanwendungen, DiGa) are certified low-risk medical apps. They are apps that insured persons use with their smartphone or tablet, for example, but also web-based applications that run via an Internet browser on a PC or laptop. The certification is made by the “Bundesinstitut für Arzneimittel und Medizinprodukte (BfArM)” (Federal Institute for Drugs and Medical Devices) and recognized by insurances. These apps have a high standard of data protection and low health risks for the patient. The DiGa can be prescribed by the doctor, which happened approximately 3.660 times (last year).

Other health apps are not certified DiGa and thus how they are used is the responsibility of the patient. These apps might be considered as health and fitness apps and include services to record the period, track the sleeping cycle, regulate the diet, or promote awareness and motivation. According to Statista, the three most downloaded apps in this category in were related to Covid in January 2022 This is followed by fasting and foot tracker as well as sport apps which are six of the ten highest ranked health and fitness apps. The only app in this category that is neither related to Covid nor diet and sport is an app that tracks the female period (7<sup>th</sup> position).

<https://de.statista.com/statistik/daten/studie/166976/umfrage/beliebteste-kategorien-im-app-store/>



## LITHUANIA

Today, technology and innovation have made it possible to take care of our health without wasting time and money.

Since 2015, Lithuania's e-health system has allowed citizens, doctors and pharmacies to have a single access to e-health services and share information remotely. By logging on to the [www.esveikata.lt](http://www.esveikata.lt) platform, each of us can analyse which tests have been carried out, which diseases we have had, which medicines we have taken, which certificates have been issued, the vaccination calendar and so on. By following the information on official websites such as [pasveik.lt](http://pasveik.lt), [vaistai.lt](http://vaistai.lt) and [pincetas.lt](http://pincetas.lt), it is possible to get quality information on diseases, doctors, medicines, healthy lifestyles, etc. Nowadays, it is possible to register with a doctor online, other public authorities like Regitra can see a person's health certificate, and there is no need to pick up, drop off, pass on records of tests, or call and ask for the results of tests. And then there are the many mobile apps and devices like smart bracelets that have been developed to keep track of your health status.

Although Lithuania is one of the leading countries in the European Union, with more than 65% of the Lithuanian population using eHealth services, the topic of health is constantly being discussed and debated. In particular, the quality of digital health services, the development of new services and other innovative health products are much discussed.

## GREECE

The results of a recent study (2020) by the Center of Educational Policy Development titled "Adults and Lifelong Learning Programs in the Pandemic Period: The Challenge of Digital Skills" suggest that Greek citizens lack of digital skills. The data collected shows that 16% of those aged 25-64 have not used the internet in the last three months – twice the European average, and third highest in the EU.

The problem mostly affects older people and those with low financial and educational backgrounds. Moreover, data indicate that women are less digitally skilled than men. According to the DESI overall index for 2020, Greece is ranked 28th in terms of connectivity, 25th in terms of human capital and internet usage, 24th in terms of businesses integrating digital technologies and 27th in terms of public services integrating digital technologies. Another issue that must be considered is that Greece has the most expensive internet in the European Union, according to Eurostat data.

The abovementioned situation is clearly shown in digital health sector, where Greece continues to lag other European Union countries. A study conducted by the Foundation for Economic and Industrial Research on digital health and real-world data, Greece is ranked 26th among EU countries in terms of the use of electronic health records and is 25th in the exchange of clinical data electronically. However, Greece ranks better in performance in telemedicine (eighth) and in the development of personal health records (sixteen).

Society, policy makers, and trainers need to consider the above-mentioned situation in order to meet the needs of the population. Adapted actions need to be selected after considering what the members of the specific group need to learn. Individual groups with a low level of digital skills, even among older individuals, must be handled differently.



## SWITZERLAND

In Switzerland, the University of Zurich's Department of Communication and Media Research, in 2020 surveyed 1,350 people across the 26 cantons of Switzerland is providing us with some useful insights on digital health practices in Switzerland. They asked whether communication (voice calls, video calls, text messaging, email, and social media) with friends and family (but not work contacts) had increased, decreased or remained the same compared to before the coronavirus pandemic. More than two-thirds of respondents had stepped up the use of at least one method of communication to keep in touch with those outside their household. Across all modes of communication, the number of people who increased activity greatly outnumbered those who slowed down. The highest activity increase was observed with video calls, text messages, and voice calls. Italian speakers were most likely to use video calls and social media more. Text messaging became more popular among French-speaking participants and only a small minority of people reduced their communication practices.

Since social media are generally popular for communication (over 95% of participants in this survey use WhatsApp, Facebook, Instagram, Twitter or YouTube), it was important to see how many people were using social media to source information about the pandemic. Overall, 70% of Swiss obtained coronavirus information from at least one of these platforms. There were pronounced differences between language groups, Italian-speakers were most reliant on social media as coronavirus information sources. German-speaking respondents were significantly less likely to use WhatsApp, Facebook, and YouTube. It was also important to understand how people educate themselves about the pandemic. This can help government agencies to reach the population with recommendations as the lockdown measures loosen and social distancing measures change - or in case we ever face such unfortunate circumstances again.

Overall, one of the main barriers regarding e-health is precisely the lack of awareness, confidence and skills to find, understand and appraise online health information - and apply this knowledge to make health-related decisions and to trust e-health solutions. Strengthening the trust of eHealth methodologies is particularly important if you consider the latest research done by the University of Basel (in April 2021 - <https://www.swissinfo.ch/eng/study-suggests-one-in-three-swiss-entertain-covid-conspiracy-theories/46517742> ). In this study, a sample group of more than 1,600 people were asked whether they believed such theories as Covid-19 is man-made, the pandemic is being used to exert authoritarian control over people or that vaccines secretly contain microchips. One in ten respondents said they firmly believed in at least one of these theories while another 20% said they subscribed to a moderate degree. It is clear that being able to research, understand and trust information regarding eHealth is fundamental to not only educate people but to stop misinformation and conspiracy theories.

On the other hand, the need to constantly improve digital competences of health professionals and citizens remains a fundamental point. In Switzerland, I-DAIR has identified that the challenge ahead is to bring quantitative and qualitative benchmarks together for digital health innovation to scale responsibly. It is also equally important to retain human agency as health assessments and interventions get digitized. Specifically, it is important to understand what kind of human-centered benchmarks are needed, how they should be developed and deployed, and what could be the attributes of trusted and neutral platforms, acting as social stock exchanges for such benchmarks.



## 2.3 Field research – focus groups

The focus groups were conducted in the partner countries of the project in June and July 2022. Experts in the digital health sector and representatives of good practices were invited to join the focus group and discuss about four topics:


- *latest developments in the e-health sector,*
- *practical use of e-health and its adaptation to the general public,*
- *education needs, fears and obstacles of users*
- *new technology and the future.*

The results of the focus groups were also used as basis for the development of an online Repository, a Toolkit and a Netiquette. Therefore, the partners have chosen a variety of experts from different fields: health policy experts, representatives of the competent ministry, application developers, non-governmental organizations active in the field of e-Health, health workers, health insurance representatives, developers and providers of e-Health services as well as users of these services.

The focus groups in Switzerland and Greece emphasised on potential users (patients, doctors, health workers) of e-Health services. In Germany, Lithuania and Slovenia the experts consisted more of providers, educators and researchers.

### 2.3.1 Key findings

The COVID situation accelerated the digitization of the healthcare system. And at the same time, it showed the importance of knowing how to use digital services. In the field of e-Health there is a development of many lifestyle apps, apps to monitor our physical activities, apps related to COVID, as well as apps that support the health system (e-prescription, e-patient record, e-ordering, waiting lists, e-Health record, etc). Technology improves the quality of the healthcare system because ICTs are mainly used to collect and archive medical data. This facilitates work and saves time for both medical staff and patients



*“The benefits are clearly in terms of time, and in terms of price comparisons for prescription medicines” (Lithuania).*

*““The effect is already there when the appointment is sent to me, I can fill out a questionnaire, and I am not asked everything again when I am in the practice” (Germany).*



However, the weak points in communication between medical staff and patients is the lack of available equipment (computers, tablets, smartphones, smartwatches, etc.) and the low digital skills of both of these target groups.

As e-health software is developing fast and new applications and regulations are implemented, we need to educate and train the users accordingly so that they can critically assess healthcare processes. At the same time as development, we must also ensure the maintenance of social contacts and relationships between staff and patients.

*"When it comes to the general population people will always prefer to see a doctor than to work with their phone app" (Switzerland).*

Many people search for information about medical conditions online. This has the potential to spread false information and create unnecessary tension and stress if they do not have the skills to select information. At the same time, people with low digital skills tend to have now or little confidence in using e-Health services. Lack of digital competences and inadequate knowledge of data protection, is present especially among the elderly and other vulnerable groups. Often these are the groups who would benefit most from the services but feel too uneasy with the technology and its ramifications. It is important to emphasize the positive meaning of digitization and "benefits before risk".

*"Awareness of data protection is extremely high and does not need to be pointed out. The older generation in particular has the motto "you'll have to guess our data!" There, negative prejudices have to be reduced anyway and the advantages and added values have to be pointed out" (Germany).*

*"Data protection is a prerequisite before starting anything" (Slovenia).*

E-Health services need to be regulated in a way that data is secure and access is facilitated for users, including those with lower levels of digital literacy. While there are already NGOs providing digital training on e-Health, the classes are mainly attended by older populations. There should be more ICT training so that people feel more confident and independent in using ICT.

*"Without education everything seems impractical" (Greece).*



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A good strategy for the digitization of the health system is needed, with the help of all stakeholders (contractors, patients, software companies and other stakeholders). E-health services need to be accepted and approved by civil society, which tests the service before publication/use and confirms or refutes the reasonableness and usefulness of the service itself. Transparent operation in the highest interest of users should be paramount.

*"Not every attempt of digitization is good or useful in practice" (Slovenia).*

The full report on focus groups within Heal Literacy project is available here: <https://heal-digital.org/2022/08/focus-group-report/>



### 3 Conclusion

Although the use of digital public services in Europe has generally increased over the last decades, there are still significant differences between countries, especially in the provision of e-health services. This became also evident in the comparative analysis of existing health systems, e-health services and products, e-health literacy, and the use of the internet for health information in the countries of the project partners. The data for the analyses results from focus groups and desk research. On this basis, we have reached the following conclusions.

The digitisation of healthcare is not just about the introduction of new technologies. The biggest challenge lies with the people (medical staff - patients) who have to learn and become accustomed to the use of new technologies. Practice shows that the more confidence the people have in health innovations, the more likely they are to be effective and well received.

During the pandemic, where many activities have shifted to the virtual environment, the need for health information, services and products has increased, and digital health literacy is key to navigating and accessing the virtual health environment.

Personal data and the protection of personal data are important aspects of the use of online resources. Therefore, when searching for, obtaining and sharing information, special attention should be paid to the handling of personal data and the protection of privacy, which is certainly an important part of digital health literacy. At the same time, digital information channels allow for the rapid spread of misinformation, so assessing and identifying the reliability of online information and resources is certainly a key component of digital health literacy.

The further digitisation of healthcare will only increase the role of the internet as a source of information and accessibility: remote access to a doctor and consequently to medicines, prescriptions, changes in care for the elderly, the emergence of a number of new technologies that will contribute to improving competences in digital health literacy. All of this raises new challenges in the field of health literacy and digitalisation, especially for vulnerable groups such as adult beneficiaries of low socioeconomic status, elderly, members of marginalized ethnic and minority groups and people living in rural areas.



But very little has changed in the training of health professionals and other professionals who work in the health sector – including non-profit community support organizations, local government agencies, libraries, retirement houses, in general organisation that could serve as contact and information points for this topic. It is therefore essential to focus the process of promoting digital literacy on professionals and volunteers working in these organisations (e.g. peer-to-peer educators, librarians, social workers, family caretakers) on the one hand and users on the other. At the same time, it is also important to focus on increasing digital health literacy in all age groups.

To ensure that all groups of society, especially the vulnerable ones, benefit from the digital transformation, requires cohesive action in multiple areas. Meeting the digital health literacy needs of disadvantaged and marginalised groups means making progress in reducing health inequalities.

Following the resources analysis and evaluation, the PR1 output – the Repository - also served as the base for the creation of the Training Toolkit (PR2), which will be developed during the course of the project and will consist of five modules:

- *Module 1 - Skills and competences to facilitate the usage of e-health*
- *Module 2 – Data privacy and digital health records*
- *Module 3 – Searching and selecting information*
- *Module 4 – Interaction with and usage of services*
- *Module 5 – Communication and connection with a health professional*





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