Aiming at improving digital empowerment for active healthy living of citizens in Europe





** * * * * Funded by ** * * * the European Union

DIGITAL HEALTH

Field of knowledge and practice associated with the development and use of digital technologies to improve health.

HEALTH LITERACY

People's knowledge and competency in accessing, understanding, appraising, and applying health information to make judgments and decisions in everyday life concerning healthcare, disease prevention and health promotion.

DIGITAL HEALTH LITERACY

The ability to seek, find, understand, and appraise health information from electronic resources to make appropriate health decisions or solve a health problem.

E-HEALTH

The use of information and communication technologies (ICT) in health products, services and processes, combined with organisational changes in healthcare systems and new skills, to improve citizens' health, efficiency, and productivity.

EXECUTIVE SUMMARY

Public and private health care-related expenses are increasing unsustainable. Digital health is rapidly developing as a solution to current and future health care problems by increasing access to information, services and products that help individuals better manage their own health. However, if an individual lacks the basic ability of how to find, comprehend, and apply that information through digital means – known as digital health literacy, or (d)HL – then these tools' and services' potential to improve self-management will be greatly reduced and The expected cost-effectiveness benefits will not be achieved.

The Improving Digital Empowerment for Active Healthy Living (IDEAHL) initiative is a Europewide effort that aims to create a comprehensive and inclusive EU strategy for improving (d)HL. Cocreation of health literacy policies and practices is the best way to achieve this, and the initiative will therefore engage over 1,300 stakeholders during its lifetime. As part of this, a network of champion practices, and pilots of promising practices will be initiated. A map of current (d)HL at country and regional levels will also be created, using validated monitoring mechanisms identified by the initiative. In this way, IDEAHL will help empower EU citizens in using digital tools to play a more active role in managing their own health and well-being, and support innovation for person-centred care models. All this will contribute to reigning over health-related expenses to sustainable levels. Stakeholder engagement is central to the initiative to achieve these outcomes.



(d)HL=digital Health Literacy

Digital health technologies are a driving force for helping citizens and health professionals address preventable risk factors associated with diseases. They can facilitate early detection and treatment and support healthy ageing. Digital health solutions are also key to support a shift in care provision by empowering citizens in accessing their personal health data and managing their own health.[1] The World Health Organization (WHO) states that a majority of its member states have an eHealth strategy, legislation to protect electronic patient data, and ongoing eHealth initiatives.[2] Despite these advancements - which have accelerated during the Covid-19 pandemic - the digital transformation of healthcare risks leaving behind the very people it hopes to empower.

This is because many individuals, both professionals and laypeople, lack a sufficient level of (d)HL. Being able to use technology is not the same as being knowledgeable or skilled in the use of technology to understand health issues and act accordingly. Vulnerable groups are particularly at risk of insufficient (d)HL, and professionals often lack training and support to identify this end-user groups.

[1] EC, COM(2018) 233 on enabling the digital transformation of health and care in the Digital Single Market [2] https://www.who.int/health-topics/digital-health [3] Kessel et al, 2022, https://doi.org/10.1016/j.invent.2022.100500 [4] WHO (2022). Equity within digital health technology within the WHO European Region: a scoping review

The challenges already being faced in the deployment of digital health technologies are very likely to be coupled with under-use confusion over interpretation of results and recommendations, and even incorrect or harmful decision-making in the most serious cases.

The economic effects of this unrealized capacity in digital health could be devastating. Tools and services that aim to reduce the health care economic burden may end up increasing it. The significant costs associated with developing, implementing, and managing digital health technologies are instead added to existing health care costs, which do not decrease when many of its users fail to comprehend the technologies' intentions and outputs. It could simply make the situation worse instead of better.

We must therefore consider (d)HL as a "superdeterminant" of healthy decision-making in a digitalized society[3], as well as a critical factor in determining the success of many digital health technologies.

The evidence from the WHO:s most comprehensive scoping reviews of equity in digital health technologies suggests digital literacy as a key driver of differences in access, use and engagement across equity domains.[4]

HOW (D)HL AFFECTS USERS, PROVIDERS, AND DEVELOPERS ALIKE



Digital health interventions that do not achieve their full potential due to insufficient use by low (d)HL groups, but nonetheless remain active over long periods, are called survivors. This stubbornly long lifespan is often motivated by the significant costs of developing and implementing such interventions. However, leaving them in place means they may often out-compete development of potentially more effective (d)HL-sensitive interventions in terms of infrastructure, resources, or even marketability.

The "patient" will not see you now

The EU Medical Devices Regulation (MDR) stipulates that all new digital health technologies under its jurisdiction must provide evidence of both pre- and post-market effectiveness to be compliant[5]. Low (d)HL among users puts this effectiveness at risk due to improper or insufficient use. This may lead to a lack of clinical or real-world evidence that can lead to technologies never reaching the market – or being removed from it.

Sceptics, unite

How users feel that their integrity is managed may also influence their use of digital health technologies. Lower (d)HL users use digital platforms with lower quality or misleading health management information more often than high (d)HL users [6]. Once established, removing such biases is difficult. It can results in effective digital health tools and sources not being used by groups that need them the most, or inappropriate tools and sources being used when they should not be.

[5] MDR Chapter 4, article 61 and Chapter 7 article 83, respectively [6] For example, Marzo et al. (2022). Doi: 10.3389/fpubh.2022.998272

HOW (D)HL AFFECTS USERS, PROVIDERS, AND DEVELOPERS ALIKE

Some digital health technologies may be successfully implemented or show effectiveness in groups with high (d)HL, but not in groups with low (d)HL. This can lead to improvements in the typically lower health care needs of high (d)HL groups, while having little or no effect on the significantly greater health care needs of low (d)HL groups. Health differences between high and low (d)HL groups will therefore increase. The cost of the technology may therefore not be outweighed by its benefits, with the equation becoming even more unbalanced over time.

The (d)HL level of both professional and citizen users can affect the ease of which a digital health technology is implemented. Low (d)HL has been shown to increase resistance to technology use, regardless of its potential effectiveness. Professional users tend to disregard technologies with outputs they cannot interpret, and citizen users shun products and services that are not intuitively understandable.

[7] Equity within digital health technology within the WHO European Region: a scoping review. Copenhagen: WHO Regional Office for Europe; 2022. Licence: CC BY-NC-SA 3.0 IGO.







There is a need to develop more inclusive and gender-responsive digital training that focuses on the specific needs of women. Although there is evidence indicating that in high-income countries women use the Internet more frequently than men to access health-related resources the majority of available tools do not address women's needs and priorities[7].

The Improving Digital Empowerment for Active Healthy Living (IDEAHL) initiative places this

Healthy Living (IDEAHL) initiative places this perspective at the forefront. Consisting of 14 research and practitioner organisations in 10 European countries and funded by the EU Horizon Healthy Citizens 2.0 framework, it puts (d)HL at the centre of EU health strategy. Together with over 1,300 stakeholders from public health and social services, technology branch representatives, civil society organisations, citizens, IDEAHL will co-create, test, and evaluate an inclusive and comprehensive EU strategy on (d)HL, which can be implemented at national and regional levels.

This strategy will involve the formulation of (d)HL-promoting policies, the recommendation and testing (d)HL-strengthening interventions, and the monitoring of valid (d)HL indicators across Europe. The target audiences of the strategy's activities are both at the professional level (who can develop, deploy, recommend, and prescribe the use of digital health services) as well as the public level (who will make up the user-base of digital health services). The activities will develop the core competencies required to achieve good (d)HL, but also to relate it to developments in society regarding health, digital technology use, civic engagement, and socioeconomic trends.



Health literacy- and (d)HL-related literature has increased exponentially over the last half decade as awareness of its importance has grown. IDEAHL is therefore forming the foundation of its strategy through a comprehensive mapping of evaluated policies, studies, funded projects, and current practices in the EU and selected non-EU countries. This work is a major contribution to the understanding of what works in improving (d)HL and what simply survives. The results will also feed into the EU Health Literacy Atlas, which will be upgraded into a continually updated, verified knowledge source for decision-makers and practitioners to freely access.



Successful practices (so-called "champions") and less successful ("survivors") are often created and implemented separately. IDEAHL will create a knowledge exchange network of those identified (d)HL practices across the EU and beyond to facilitate the best performing practices as well as help improve those that may be underperforming.



The planned EU strategy for improving (d)HL will be co-created through over 100 workshops, exercises, and consultations involving more than 1,300 stakeholders identified by the IDEAHL consortium partners. These include representatives from policy makers, health care professionals, technology developers, academia, civil society organisations, citizens and the media.





WP5

Dissemination & exploitation.

WP6

Management, coordination and quality assurance.



 \sim

Inclusion, privacy and ethics in the (d)HL Strategy



WРЗ

. .

. . .

. . '

•

Implementation, monitoring and evaluation of the EU (d)HL Strategy

WP1

Map Health literacy research and pactices un Europe and beyond

WP2

Co-creation of the EU strategy to improve (digital) health literacy







The co-created strategy will point out several promising interventions, of which some will be piloted by IDEAHL at the national and/or regional level, their effects will be evaluated, and adjusted as necessary.

These deliverables are still dependent on active stakeholder engagement to achieve real benefits. Knowledge sources, suggested strategies, policies, and interventions still need to be implemented by those in relevant positions to gain traction and have positive effects on (d)HL in different groups and locations.

Current (d)HL and HL levels and trends in EU Member States will be obtained and presented in an online interactive Atlas, based on IDEAHL's initial literature review.



A validated set of (d)HL monitoring mechanisms and indicators will be developed by IDEAHL for continual use and development in EU Member States.





Expected benefits





Better interaction between citizens and health care providers through improved monitoring and communication methods.

IDEAHL's outputs are designed to promote several advantageous developments in the EU Member States, including:

> Improved trust and engagement with proven, effective digital health technologies at all ages, increasing adherence to health promotion and disease prevention interventions.



Improved and integrated dialogue and coordination between stakeholders and policy makers in developing more effective crosssectoral (d)HL solutions for all.

1. Digital health literacy is a super determinant of healthy decision-making in a digitalized society. It must be addressed first and foremost, as the benefits and success of other digital health tools and services depends on



2. By 2024, the IDEAHL initiative will create an implementable, EU-wide strategy to enable use of (d)HL best practices and monitoring methods, using co-creation methods involving a wide range of stakeholders.



3. Successful implementation of the EU strategy will be largely dependent on the real commitment of policyand decision-makers in the early stages of the strategy-forming process.

IDEAHL VALUE PROPOSITIONS

Wide EU representation

10 EU Member States involved

Citizen & Patiens

dee

Unique consortium covering the whole value chain of health & digital transformation and working hand in hand with citizens and patients



Strong focus on social innovation and co-creation to promote a participative and inclusive approach



Special attention to gender, equality, ethics and privacy aspects of the EU(d)HL Strategy

Improving Digital Empowerment for Active Healthy Living

IDEA

and then work it

100 100 100 100 100 100

0

Policy makers

Tight connection with policy makers

Digital Health Literacy

Innovative project that aims to develop and test new models and approaches of (d)HL intervention, development and application for improving health of citizens.

What you can do to get involved in the IDEAHL work



Coordinator: CONSEJERIA DE SALUD PRINCIPADO DE ASTURIAS Ms. Marta M. Pisano González Calle Ciriaco Miguel Vigil, 9 33005 Oviedo, Asturias, Spain www.astursalud.es/astursalud dgcuidados@asturias.org Tel: +34 985105500 Ext: 17485

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the Health and Digital Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

- Contact the IDEAHL consortium leader (martamaria.pisanogonzalez@asturias.org) who can help you get registered for upcoming stakeholder consultations in your country or nearby.



- Download the reports (<u>https://ideahl.eu</u>) from the initial knowledge maps regarding best practices and monitoring and evaluation methods.

- Use this white paper as a starter discussion point at your next meeting to raise awareness about what (d)HL is and how it affects your own work.





Funded by the European Union