Digital health literacy: how new skills can help improve health, equity and sustainability

POLICY PRÉCIS

This Policy Précis takes stock of recent developments in the field of digital health literacy and what it means for health equity. It also looks at promising practices from our members on the ground and how further progress can be made across Europe.

The Situation

Digital health literacy is an essential element for the successful transformation of health and care systems, but it is vital to ensure that no-one is left behind. Digitally health literate people can more actively manage personal health and care. This in turn can also have positive effects on the efficiency and sustainability of health systems. Better digital health literacy can lead to enhanced prevention models, better observance of healthier behaviours and improved wellbeing.[2]

Digital health literacy and **equity** are closely linked. People lower along social gradients tend to have higher disease burdens and health needs, yet they are more vulnerable regarding access to and understanding of health information.[3] They may be less aware of issues of privacy, health data use, and data protection[4] and are also more likely to experience digital exclusion. Increasingly health information is collected, disseminated and transformed through online platforms, including websites and social media, forums, or blogs. This raises new challenges regarding the quality and reliability of the platforms and information, including the issue of a misleading marketing.

Effective and equitable digital transformation in health is vital for modern systems and empowering citizens and patients. But current digital health tools often insufficiently account for varying abilities and wrongly assume that all users are homogenous. Digital health literacy is shaped by economic, environmental,
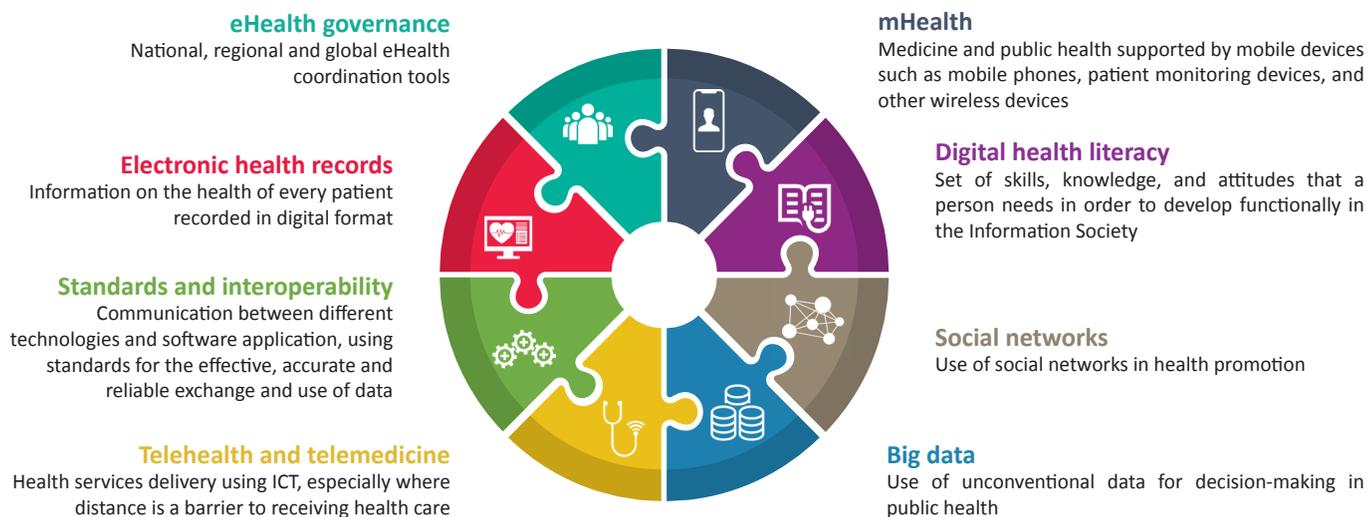
Digital health literacy "*is the ability to seek, find, understand, and appraise health information from electronic sources and apply the knowledge gained to preventing, addressing or solving a health problem*". [1]

cultural, and societal factors.[5] Complex evaluation and regulation is slow to keep pace with innovation and societal changes. With few fixed guidelines for implementation and assessment, there are risks as well as benefits. Enabling an effective and equitable transition requires actions from health and other systems; digital innovation by states and societies as well as companies; development of public services and professionals; and broader education, social inclusion and social justice improvements.

The World Health Organization (WHO)[7] is increasingly paying attention to digital health literacy, with publications such as the important first *WHO Guideline Recommendations on digital interventions for health system strengthening (2019)* and *Digital technologies: shaping the future of primary health care (2018)*.

Other important sources are *UNICEF's approach to digital health*[8] and *Health literacy for people-centred care: where do OECD countries stand?*[9].

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Digital Health Ecosystem

eHealth governance
National, regional and global eHealth coordination tools

Electronic health records
Information on the health of every patient recorded in digital format

Standards and interoperability
Communication between different technologies and software application, using standards for the effective, accurate and reliable exchange and use of data

Telehealth and telemedicine
Health services delivery using ICT, especially where distance is a barrier to receiving health care

mHealth
Medicine and public health supported by mobile devices such as mobile phones, patient monitoring devices, and other wireless devices

Digital health literacy
Set of skills, knowledge, and attitudes that a person needs in order to develop functionally in the Information Society

Social networks
Use of social networks in health promotion

Big data
Use of unconventional data for decision-making in public health

Source: WHO[6]

Following up

EuroHealthNet is working with Partners across Europe to develop a new *Guide on Investments for Health Promotion (forthcoming, 2019)* to help build capacities and increase innovative implementation, including for digital health literacy.

EU Policies and Programmes

In the **EU *eHealth Action Plan (2012–2020)*** increasing digital health literacy is listed among one of the measures aiming to support the wider deployment of eHealth strategies.[10] A more specific and up to date strategy is needed from the new European Commission, with clear resources dedicated via the next Multiannual Financial Framework 2021-27. Digital health literacy is also mentioned in more recent EU actions, but with insufficient emphasis:

> *EU Council Conclusions on Health in the Digital Society (2017)* highlight the importance of digital and health literacy in designing and implementing digital tools to avoid creating further health inequalities and ensure quality and safety of the services.[11]

> **The European Commission Communication on *Enabling the digital transformation of health and care in the Digital Single Market; empowering citizens and building a healthier society (2018)***. The more detailed "*Working Document*" accompanying this Communication endorses the recommendation of improving digital health literacy to facilitate access to healthcare in a fair and inclusive way.[12]

> **The European Commission Recommendation Paper on *Patient Access to Electronic Health Record Information (2018)*** promotes more awareness-raising activities on digital health literacy to help citizens to acquire skills to understand and appraise data.[13]

> **The advisory report of the EU Expert Panel on effective ways of investing in Health Assessing the *Impact of Digital Transformation of Health Services (2018)*** refers to digital health literacy as the medium to ensure accessibility, decrease inequities and reduce barriers.[14]

EU educational policies have indicated links between digital literacy and health; but so far the term 'digital health literacy' is not extensively or fully used:[15]

> **The Communication on *A new skills agenda for Europe (2016)*** outlines the benefits of education and training, including through digital advances in health and care systems.[16]

> **The Report on *Improving Policy and Provision for Adult Learning in Europe (2015)*** recognises that digital skills are key to reducing social inequality, increase inclusion, cohesion and active citizenship and improving mental and physical health.[17]

Pathways to Progress

Work in 2019 with our expert and responsible Partners has led to recommendations that should be urgently and systematically developed and implemented at all levels. We recommend the following:

Policy

> An EU Joint Action of Member States and experts on improving digital health literacy for all, as part of a comprehensive implementation strategy and plan within the EU Digital Strategy with funds from programmes including ESF+, Horizon Europe, and InvestEU.

> That digital health literacy is a component towards universal delivery of the UN Agenda 2030 and Sustainable Development Goals, with metrics and targets in the EU and WHO Europe 2030 plans and the EU Semester for Economic and Social Policy Co-ordination.

Protections

> That health equity impact assessments are implemented in public and private practices, with common frameworks and guidelines including digital health literacy issues.

> That EU regulations are brought forward on how digital literacy is upheld, for example through search engines and in specific health systems components.

> That digital tools and services are more inclusively developed with precautionary protections concerning sensitive health data.

Practices

> A new information and guidance hub for promising and evaluated practices via the EU Steering Group for Promotion and Prevention, with an equity focus.

> That digital health literacy is considered as a core part of multi-sectoral actions at all levels, from international to local.

> That access for all is prioritised in provision and upgrading of necessary infrastructures, for example 5G mobile technologies, to reduce risks of exacerbating geographical, social and economic determinants of digital health literacy inequities.

Public

> That citizens and specific user groups throughout the life course are systematically and inclusively involved in the transparent co-creation, design, planning, implementation and evaluation of digital health and care system and services.

> That education and training for all throughout life includes strengthening competences and systematic updates to improve health literacy, including the impacts of changing commercial, technological and policy determinants.

Professionals

> That training across health professions is improved on digital health and wellbeing developments and the key components of digital health literacy. This includes people in the wider public health workforce of associated professions including, carers, educators, cultural and ancillary service workers. Training should include capacity building for objective trainers, not only from digital providers and advocates.

> That providers of digital health services are required to demonstrate their knowledge and competences in relevant fields as a precautionary part of the innovation and assessment process, including their commitment to an improvement in digital health literacy.

Making it Happen

EuroHealthNet Members and Partners are taking action. Here are just three examples among many:

The Netherlands

Online inzage
Hoe regelen we dat?!

Handboek
editie ziekenhuizen

Pharos, the Dutch Centre of Expertise for Health Disparities is involved in the ***Acceleration Programme for Patient and Professional Information Exchange (VIPP).***[18] This programme facilitates development of online portals to allow patients to access their own medical data. Pharos collaborates with hospitals, rehabilitation centres and similar institutions[19] to ensure that online portals are developed in an inclusive way. It uses a panel of less literate people to test and improve services for accessibility, user-friendliness and comprehensibility. Knowledge and best practices on development and implementation strategies to support accessible online portals are collected and shared. Pharos has also developed a '***4 steps to eHealth4All***' working model which not only develops comprehensible and easy to use digital tools but also enables local partners in prevention and care to implement digital tools within local infrastructures.[20]

Norway

Bilde 1 – Funksjonelt målbilde for DIGI-UNG prosjektet

The National Health Directorate supports policies that promote participation from all citizens across age, gender, ethnic background, social economic status and levels of health literacy. The universal design of information and communication technology is a legal requirement for both public and private sectors. As part of the ***Norwegian Youth Health Strategy***, the Health Directorate facilitates health literacy through digital information and help services among young people. This has resulted in the ***project DIGI-UNG***[21], which coordinates and develops digital services for adolescents aged 13 to 20 years, with a focus on healthcare and school health services. The platform also includes services regarding access to education, the job-market, and help from child welfare services. Insights indicate that young people seek tailored, reliable and relevant digital services based on their life realities, plus simpler access to public services online.
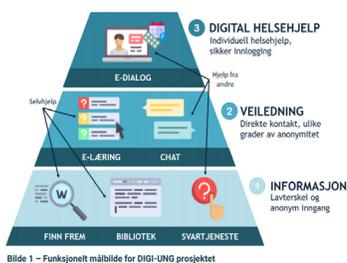
Portugal

OMNICHANNEL

CITIZEN

Coordenated and integrated across all channels

The Directorate General of Health (DGS), launched the ***Serviço Nacional de Saúde 24***[22] **(SNS 24)** in 2017, as part of the government 2020 strategies and healthcare system reforms, with a specific focus on strengthening digital health literacy across the population. The main objective of SNS 24 is to serve as single access point for health information. It is a free online and telephone service that provides first-hand health information and responds to enquiries 24/7. SNS 24 provides advice and guidance on a range of health behaviours as well as enabling users to book vaccinations. It offers services that allow people to solve health-related issues without having to go to a primary care service or hospital. The platform is accessible across a range of devices and aims to support users in plain and simple language.

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FOOTNOTES

1. Definition adapted from https://www.who.int/global-coordination-mechanism/working-groups/digital_hl.pdf
2. https://www.pifonline.org.uk/wp-content/uploads/2018/05/Gill-Rowlands-presentation-2-May-2018.pdf
3. Liobikienė, G., & Bernatonienė, J. (2018). The determinants of access to information on the Internet and knowledge of health related topics in European countries. Health Policy, 122(12), 1348-1355.
4. https://rjh.goingeast.ca/2016/12/07/critical-digital-health-literacy/
5. http://ec.europa.eu/information_society/newsroom/cf/dae/document.cfm?doc_id=5170
6. https://www.who.int/global-coordination-mechanism/working-groups/digital_hl.pdf
7. http://www.euro.who.int/en/health-topics/Health-systems/pages/news/news/2019/2/what-you-need-to-know-about-digital-health-systems
8. https://www.unicef.org/innovation/reports/unicefs-approach-digital-health%E2%80%8B%E2%80%8B
9. https://www.oecd-ilibrary.org/social-issues-migration-health/health-literacy-for-people-centred-care_d8494d3a-en
10. https://ec.europa.eu/digital-single-market/en/news/ehealth-action-plan-2012-2020-innovative-healthcare-21st-century
11. https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2017:440:0003:0009:EN:PDF
12. https://ec.europa.eu/digital-single-market/en/european-policy-ehealth
13. https://ec.europa.eu/digital-single-market/en/news/recommendation-european-electronic-health-record-exchange-format
14. https://ec.europa.eu/health/expert_panel/sites/expertpanel/files/docsdir/022_digitaltransformation_en.pdf
15. For example, "Supporting people across Europe in gaining the skills and competences needed for personal fulfilment, health, employability and social inclusion helps to strengthen Europe's resilience in a time of rapid and profound change" means supporting also digital skills
16. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52016DC0381&from=en
17. https://cdn4.fpfis.tech.ec.europa.eu/epale/cdn/farfuture/z4aiXacxARSdKaZHuR7Cnty_YDPohi-JRWr2KjXPooc/mtime:1457602691/sites/epale/files/wg_al_2015_final_report_final_.pdf
18. https://www.vipp-programma.nl/over-vipp
19. The Leiden University Medical Center (LUMC), the IJsselland Hospital (Capelle aan den IJssel) and the St. Antonius Hospital (location Utrecht).
20. https://www.pharos.nl/e-healthweek-2019/
21. https://www.helsedirektoratet.no/rapporter/ungdomshelse-i-en-digital-verden/Ungdomshelse%20i%20en%20digital%20verden%20(DIGI-UNG%20del%201).pdf/_/attachment/inline/e3016f1c-fd0f-4990-80cf-f97ac8742968:0c16037004a34de79c595b1e2da16dc4ee85b632/Ungdomshelse%20i%20en%20digital%20verden%20(DIGI-UNG%20del%201).pdf
22. https://www.sns24.gov.pt/en/