The Standing Committee of European Doctors (CPME) represents national medical associations across Europe. We are committed to contributing the medical profession's point of view to EU and European policy-making through pro-active cooperation on a wide range of health and healthcare related issues.

Policy on Digital Health Literacy

Leaving no one behind

Main messages

Governments and national health authorities must:

- Recognise the importance of capacity building and digital systems adaptation at all levels and across sectors.
- Promote training for the general public, tailoring it to vulnerable groups, and provide support through helpdesks to non-digital literate individuals. Education and training should complement inclusive design, but not replace it.
- Recognise analogue systems and procedures as a legal guaranteed right without negative repercussions, in particular for non-digital literate individuals, but also for health resilience and emergency preparedness reasons.
- Ensure healthcare professionals receive the training and support they need to meet digital health literacy requirements without added burden.
- Ensure appropriate resourcing and time to communicate with patients on DHL, as the lack of support increases risks for patients and doctors.
- Design inclusive and user-friendly digital health systems, adapted for all patients and healthcare professionals.
- Acknowledge the systemic design mismatch, where technologies are primarily built by people who are healthy and digitally health literate, yet they are intended for those who are sick and may not be digitally health literate.

Introduction

Some modern healthcare systems expect patients to navigate a digital maze before they receive care. From evaluating symptoms, following treatments to booking appointments through sometimes complex web portals, accessing timely, appropriate care can demand high digital health literacy (DHL). For many vulnerable individuals, or individuals facing a variety of other barriers, these technical hurdles can be confusing roadblocks.

As health digitalisation advances in Europe, possessing the necessary digital health and artificial intelligence (AI) literacy may increasingly become a prerequisite for participation in healthcare systems for both the general public, doctors, and other healthcare professionals. The digital divide is a threat to the well-being of those left behind. This policy intends to support the objective of Article 84 of the EU European Health Data Space (EHDS) Regulation[1] on digital health literacy and digital health access, and Article 4 of the EU AI Act on AI literacy.[2]

For the purpose of this policy, DHL means "the ability to search, find, understand and evaluate health information from electronic resources and to use the knowledge gained to solve health-related problems."[3] It is also understood "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."[4] Moreover, in order to be digitally health literate, an individual is required to have health literacy,[5] digital literacy,[6] as well as civic literacy.[7] As result, DHL needs to be embedded in a wider policy vision, outside the health policy system, considering also health inequalities and the digital divide.

[1] Regulation (EU) 2025/327 of the European Parliament and of the Council of 11 February 2025 on the European Health Data Space and amending Directive 2011/24/EU and Regulation (EU) 2024/2847 (Text with EEA relevance), OJ L, 2025/327, 5.3.2025, ELI: http://data.europa.eu/eli/reg/2025/327/oj.

[2] Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence and amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (Artificial Intelligence Act) (Text with EEA relevance), OJ L, 2024/1689, 12.7.2024, ELI: http://data.europa.eu/eli/reg/2024/1689/oj.

[3] World Health Organization (WHO) Regional Office for Europe, *The Ongoing Journey to Commitment and Transformation: Digital Health in the WHO European Region, 2023* (Copenhagen: WHO Regional Office for Europe, 2023), <https://www.who.int/europe/publications/m/item/digital-health-in-the-who-european-region-the-ongoing-journey-to-commitment-and-transformation> accessed 20 July 2026, p 25. It should be noted the evolution of the concept of "eHealth", understood as electronic health, to "digital health" to reflect the technological progress and political priorities, including mobile devices, telehealth, artificial intelligence, big data, among other – see in this sense p 3 of the WHO report.

[4] Christopher Le, Hanne Søberg Finbråten, Kjell Sverre Pettersen, Pål Joranger and Øystein Guttersrud, (2021), "Health Literacy in the Norwegian Population", English Summary, In *Befolkningens helsekompetanse, del I. The International Health Literacy Population Survey 2019 – 2021 (HLS_{19}) – et samarbeidsprosjekt med nettverket M-POHL tilknyttet WHO-EHII,* The Norwegian Directorate of Health, p 6.

[5] Health literacy is defined as "the ability to obtain, read, understand, and use health-care information to make appropriate/informed health decisions" – See Robin van Kessel, Brian L. H. Wong, Till Clemens, and Helmut Brand, "Digital Health Literacy as a Super Determinant of Health: More Than Simply the Sum of Its Parts," *Internet Interventions* 27 (2022): 100500, <https://doi.org/10.1016/j.invent.2022.100500>, accessed 20 July 2026, p 1.

[6] Digital literacy is defined as "the ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills", being "regarded as a fundamental prerequisite for meaningfully participating in modern society" - Ibid, p 1.

[7] Civic literacy is defined as "the knowledge and ability to participate in one's society and community." The article highlights that DHL entails – but is not limited to; digital, health and civil literacy - Ibid, p 2.

This policy should not be understood as favouring digital health tools over analogue alternatives. As the right to see a physical doctor should be guaranteed, so should non-digital choices, which need to remain easily accessible and available in healthcare.[8]

A. Recognise the importance of capacity building and digital systems adaptation at all levels and across sectors

1. DHL promotion and systems adaptation must be addressed at all levels - both bottom-up and top-down approaches - involving coordinated efforts from several entities, for example the United Nations, the World Health Organization, and the European Union, as well as national, regional, and municipal levels, spanning all relevant sectors.
2. DHL should be recognised as a "super social determinant of health"[9] and a "social vaccine,"[10] essential for resilient health systems.

B. Promote training for the general public, tailoring it to vulnerable groups, and provide support through helpdesks to non-digital literate individuals

3. DHL should be addressed throughout the life of all people and throughout all stages of care. Governments, taking stock of current health literacy policy,[11] and through education systems, health promotion programmes and public awareness campaigns can support the public in developing their DHL skills. As a result, these initiatives should at least improve individuals' ability to (i) identify reliable health information, (ii) access and process digital health content, (iii) apply the knowledge to real-world situations.
4. Information and digital services should be available in plain language and in formats adapted to individuals with limited proficiency in the national language. Targeted outreach and training programmes could be considered for identified vulnerable populations, such as older adults, low-income groups, non-digital citizens, homeless and migrants, as DHL in

[8] See in this sense the reference to paper leaflets in the CPME et al. Joint Statement on Electronic Product Information (ePI), 10 June 2025, https://www.cpme.eu/api/documents/adopted/2024/11/cpme.2024-143.joint.statement.epi.10062025.pdf , accessed 20 July 2026.
[9] Robin van Kessel (2022), op. cit., p 2.
[10] Orkan Okan, Torsten Michael Messer, Diana Levin-Zamir, Lauri Paakkari, and Kristine Sørensen, "Health Literacy as a Social Vaccine in the COVID-19 Pandemic," *Health Promotion International* 38, no. 4 (2023): daab197, <https://doi.org/10.1093/heapro/daab197>, accessed 20 July 2026.
[11] See *CPME Health Literacy Consensus Paper: "Making Health Literacy a Priority in EU Policy"* (June 2013), <https://www.cpme.eu/api/documents/adopted/2014/Health.Literacy.Consensus.Paper_.FINAL_.pdf>, accessed 20 July 2026.

these groups is often "overlooked"[12] in digital health interventions.[13] Education and training should complement inclusive design, but not replace it.

Safeguarding privacy and data security

5. Digital health literacy initiatives should include basic understanding of privacy, data sharing and patients' rights concerning the use of personal health data, as well as on data security and emerging risks. In particular, national health authorities must ensure that the general public is able to access and use health information in the electronic health records (EHRs), exercise its related rights, most notably those introduced by the EU EHDS Regulation, understand national mechanisms for consent management and secondary use purposes of personal electronic health data, as well as be competent to use other digital health tools, e.g. management of chronic diseases. Digital health literacy and digital health access go hand-in-hand.

6. **National health authorities and any other entity responsible for implementing patient portals or self-serving systems should employ sufficient personnel and deliver local support** to provide coherent information to patients about digital health tools and AI systems used in the provision of care, this in order to ensure that individuals are able to properly act within a digital healthcare environment (e.g. online booking).

7. Other professions, such as digital health assistants, abiding to ethically based codes of conduct and subject to regulatory and/or disciplinary sanctions,[14] should be also able to support patients and doctors in this regard, where required.

8. Moreover, the general public must be made aware of the current and emerging risks associated with digital health tools and AI, such as sharing sensitive personal health data beyond closed networks and outside the scope of professional secrecy (e.g. into commercial AI chatbots). Public upskilling and digital adaptation should be done taking into account the CPME policy on health misinformation and disinformation.

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[12] Carolyn Cheng, Andrea Beauchamp, Gerald R. Elsworth, and Richard H. Osborne, "Applying the Electronic Health Literacy Lens: Systematic Review of Electronic Health Interventions Targeted at Socially Disadvantaged Groups," *Journal of Medical Internet Research* 22, no. 8 (2020): e18476, <https://doi.org/10.2196/18476>, accessed 20 July 2026 – the authors conclude that: "eHealth literacy is generally overlooked in developing eHealth interventions targeted at socially disadvantaged groups (…)" recommending to address the eHealth literacy to ensure equal access and avoid the digital divide.

[13] Marina Estrela, Gabriela Semedo, Fátima Roque, Pedro L. Ferreira, and Maria Teresa Herdeiro, "Sociodemographic Determinants of Digital Health Literacy: A Systematic Review and Meta-Analysis," *International Journal of Medical Informatics* 177 (2023): 105124, <https://doi.org/10.1016/j.ijmedinf.2023.105124>, accessed 20 July 2026. The authors note that: "DHL is influenced by sociodemographic, economic and cultural factors" and may need "tailored interventions".

[14] See *CPME Position on the European Health Data Space*, October 2022, <https://www.cpme.eu/api/documents/adopted/2022/11/cpme.2022-065.FINAL.CPME.position.EHDS.pdf>, accessed 20 July 2026, p 4; and *CPME Policy on the European Health Data Space - Focus on Health Research and Policy Making*, March 2021, <https://www.cpme.eu/api/documents/adopted/2021/3/CPME_AD_Board_20032021_097.FINAL_.CPME_.Policy.on_.EU_.health.data_.space_.pdf>, accessed 20 July 2026, p 6.

C. Ensure healthcare professionals receive the training and support they need to meet digital health literacy requirements without added burden

9. European doctors request governments and national health authorities to ensure appropriate DHL training, within paid working hours, in protected time, of the health workforce, not only as part of their medical education, but also in post-graduate (specialty) training and continuous professional development (CPD).

10. DHL education should be systematic, institutionalised (e.g. with competence centres at national, regional or university level), tailored to specific cohorts (e.g. which consider local working conditions, level of preexisting knowledge, etc.) and to medical specialities, while at the same time highly adaptive to emerging technologies and legal obligations.[15]

Educate doctors in basic DHL requirements

11. Any DHL obligations for doctors must be clear, fair, and understandable, and national health authorities, national medical associations (NMAs), technology suppliers, and healthcare providers share responsibilities to disseminate information on DHL obligations, while ensuring doctors access to the appropriate services, where required. The latter is of particular relevance for small healthcare providers to ensure a common and coherent understanding of possible DHL obligations.

DHL obligations should not be overly time-consuming for doctors

12. Complex or unreasonably time-consuming legal and administrative responsibilities, as a result of DHL obligations, cannot fall on individual doctors, who should spend their time in providing care to patients. Clear allocation of roles and responsibilities must be defined. For example, considering the current regulatory environment, it should be agreed at local level who and what is explained to patients in relation to DHL, the use of AI and its limitations, the EHDS Regulation opt-out rights or the functioning of the emergency override framework (the so-called "break-the-glass procedure").

[15] Education for doctors should also entail adaptive training on AI, data governance and cybersecurity skills while evaluating the effectiveness of the education programmes, as addressed in the *CPME Policy on Digital Competencies for Doctors*, November 2020, <https://www.cpme.eu/api/documents/adopted/2020/11/CPME_AD_Board_21112020_100.FINAL_.CPME_.Policy.Digital.Competencies.for_.Doctors.pdf>, accessed 20 July 2026. In addition, a sufficient level of AI literacy is required, as outlined in *CPME Feedback to Digital Omnibus Package* (February 2026), <https://www.cpme.eu/api/documents/adopted/2026/02/cpme.2026-003.final.feedback.digital.omnibus.package.pdf>, accessed 23 July 2026, p 4.

Knowledge of regulations with impact on DHL

13. National health authorities and healthcare providers must have the responsibility to organise and finance basic legal training and/or support for doctors to keep them up to date with the latest digital regulations with impact on patient safety and electronic health data, as well as on DHL. For example, and notwithstanding the specificities of each specific situation which could require additional knowledge, it should be considered of particular relevance for medical practice:

    i. under the EU AI Act,[16] the understanding of deployers' obligations of high-risk AI systems,[17] as well as provisions related to human oversight and serious incident reporting;
    ii. pursuant to the EU EHDS Regulation, provisions related to the use of the emergency override framework, rights for patients on access and use of electronic health data and the healthcare professional access services;[18] and,
    iii. in relation to the EU General Data Protection Regulation (GDPR), the principles to process personal data, the lawfulness of processing, the conditions for consent, including for children, the processing of special categories of personal data and the security of processing personal (e.g. encryption, pseudonymisation, etc.).[19]

D. Ensure appropriate resourcing and time to communicate with patients on DHL, as the lack of support increases risks for patients and doctors

14. Supported by national health authorities and healthcare providers, doctors should be able to provide adapted and trustworthy digital health information sources and tools to patients. This is underscored by patient demand, where "healthcare professionals remain by far the most trusted actors to guide patients in the transition toward AI-enabled healthcare."[20-21] This time needs to be accounted for and appropriately resourced locally.

[16] Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 laying down harmonised rules on artificial intelligence and amending Regulations (EC) No 300/2008, (EU) No 167/2013 (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (Artificial Intelligence Act), OJ L, 2024/1689, 12.7.2024, ELI: http://data.europa.eu/eli/reg/2024/1689/oj.
[17] Fabio Dennstädt, Janna Hastings, Paul Windisch, Aleksa Jovanovic, Tijana Žunić Marić, Sarah Brüningk, Daniel M. Aebersold, Antje Knopf, and Nikola Cihoric, "The EU AI Act: Implications and Compliance Guidance for Healthcare Facilities," *Frontiers in Digital Health* 8 (2026): 1808373, p 6 and onwards.
[18] Article 3 to 13 of the EU EHDS Regulation.
[19] Articles 5-9 and 32 of the EU GDPR.
[20] European Patients' Forum (EPF), *What Patients Think About AI in Healthcare? Key Findings from the EPF Survey*, 28 May 28, 2026, <https://www.eu-patient.eu/globalassets/final---epf-ai-survey-report-2026_v2.0.pdf>, accessed 20 July 2026, p 5.
[21] See in this sense Michael Constantin Kirchberger, "Public Perceptions of AI in Medicine and Implications for Future Medical Education: Cross-Sectional Survey," *JMIR Formative Research* 10, no. 1 (2026): e8912, <https://doi.org/10.2196/89123>, accessed 21 July 2026.

15. When in contact with patients, doctors could consider, if necessary, asking questions about patients' DHL competence, by addressing, for example, different DHL dimensions,[22] which may comprise questions related to the following:

    i. easy access to digital health services or platforms and health information using digital devices,
    ii. understanding of content,
    iii. processing of health information, and
    iv. real-life application of health information from digital devices in different contexts.

16. **National health authorities and healthcare providers should employ sufficient personnel and deliver local support to provide coherent information to patients about digital health tools and AI systems used in the provision of care.**

E. Design inclusive and user-friendly digital healthcare systems adapted for all patients and healthcare professionals

Acknowledge unrealistic expectations and adapt systems for its users

17. DHL should not primarily be regarded as an individual responsibility. Digital healthcare systems should be inclusive by design where services must be accessible and usable also for individuals with limited digital skills.

18. A systemic imbalance exists as systems are often designed by digitally health literate and healthy people for people who are sick and may be digitally illiterate. As a result, both healthcare professionals and patients should be included in the development of DHL tools.[23] The latter should have an accessible universal design,[24] be user-friendly,[25]

[22] Robin van Kessel et al. (2022), pp 1-2, conceptualise DHL as a competence framework, outlining four competence levels: "(1) functional: the ability to successfully read and write about health using technological devices; (2) communicative: the ability to control, adapt, and collaborate communication about health with others in online social environments; (3) critical: the ability to evaluate the relevance, trustworthiness, and risks of sharing and receiving health-related information through the digital ecosystem (e.g. the Internet); and (4) translational: the ability to apply health-related information from the digital ecosystem (e.g. the Internet) in different contexts".

[23] CPME recommends that "Doctors should be involved in the development of eHealth tools to ensure that these tools can be handled intuitively and are user-friendly, providing an actual support for doctors and patients in day-to-day healthcare scenarios" in the *CPME Policy on Digital Competences for Doctors*, (2020), p 4. See also European Junior Doctors Position on eHealth, 2023, noting that poorly designed digital solutions increase the risk of burnout and job dissatisfaction, < https://drive.google.com/file/d/1BVdnxx4ASnu1szIVuqyEqFIVHn59itvd/view?usp=drive_web>, accessed 7 October 2026, p 2.

[24] See in this sense the Norwegian example where the universal design of ICT is a legal requirement for both public and private sector, Uutilsynet website, <https://www.uutilsynet.no/english/information-english/252>, accessed 9 September 2026.

[25] For example, consider usability heuristics – see Jimenez, Cristhy, Pablo Lozada, and Pablo Rosas. "Usability heuristics: A systematic review." in *2016 IEEE 11th Colombian Computing Conference (CCC)*, IEEE, 2016, pp. 1-8.

adaptive, scientific evidence-based, with a transparent governance and the ability for local customisation.

19. Moreover, governments should acknowledge that universal digital access and a high level of DHL among the entire healthcare workforce and among all segments of the general public is unrealistic. For example, consider the pre-conditions required for patients to exercise digital rights or access to essential healthcare, in particular access to the internet, electronic identification systems, and a personal digital device. Likewise, consider individuals who are technically disinclined or do not agree with using digital tools, patients with mental or physical impairments, individuals without electronic ID, scenarios of war or of natural disasters, etc.

20. **Therefore, while DHL upskilling is important, manufacturers and public procurement entities should, first, ensure that the digital design aspires inclusive digital healthcare systems that compensates for digital gaps and works for everyone. Second, governments and national health authorities must ensure that not only the digital infrastructure is easily accessible, but also that analogue alternatives remain always available without negative repercussions (e.g. higher costs), in particular the in-person contact with healthcare providers and health information points. Third, equal access to digital healthcare requires reliable digital infrastructure, including internet access, across rural and remote areas.**

21. Furthermore, digital tools should be developed towards the digital excluded and vulnerable populations. This could entail, for example, locally adapted LLMs trained specifically for digitally health illiterate populations. Disabled individuals, such as those with impaired eyesight or impaired fine motor function, also require inclusive digital systems adapted to their needs, in particular vital systems such as those providing access to care, health advice, or to electronic health records.

Education and training must complement safe system design

22. AI literacy should include understanding that fluent and plausible outputs may be incorrect and that AI agents may take unintended actions. Education and training must complement, rather than substitute for, safe system design, effective permission controls and organisational accountability. Patients should not be expected to anticipate all possible system failures or compensate for safeguards that should be built into the technology.

Adapt digital communication to all levels of health literacy

23. Digital health communication targeted at patients' needs to have accessible vocabularies, allowing patients to understand and grasp health information to their level of health literacy. Therefore, digital health information systems may be designed in a multi-layered manner, with different tiers of complexity and a minimum level of basic information present to ensure as equitable comprehension as possible. EHRs may also implement a more interactive user interface with health-related terms highlighted and defined directly within the system.

Conclusion

The digitalisation of healthcare has the potential to improve efficiency, quality, and access to health services, yet these benefits can only be realised if digital health systems are inclusive, equitable and secure. Ensuring universal access to digital infrastructure, strengthening DHL among the public, doctors, and other healthcare professionals, and protecting against risks such as data misuse, health misinformation and disinformation, inequity, deskilling, and exclusion of essential health services are key responsibilities of policy-makers and regulators.

At the same time, since not everyone has the necessary skills or resources to use digital health services, analogue alternatives must remain always available, being recognised as a legal guaranteed right, to warrant uninterrupted access to essential healthcare. An equitable digital health system therefore requires both investment in digital inclusion, DHL, and the preservation of non-digital pathways to ensure that no one is left behind.

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