Digital health literacy for Europe's digital future

EuroHealthNet Annual Seminar 2021
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The EuroHealthNet Annual Seminar for 2021 focused on “Digital Health Literacy for Europe’s Digital Future.”

Digitalisation is transforming public health, health systems, and the health information we receive – as well as how we receive and understand it. How can we navigate these changes in ways which leave no one behind? Our health and social systems are undergoing rapid digital transformation, sped up by the COVID-19 pandemic. We also have access to more and more information – and disinformation – every day. New digital technologies offer promising solutions to many long-standing health system challenges, such as sustainability and accessibility. They also present us with new issues.

Socioeconomic differences, as well as different levels of education and skills, can lead to ‘digital divides’ which can reduce the uptake and equitable use of such new technologies. If Europe’s digital transition is to be a success, it must work for everyone.

Over three interactive sessions, the conference explored the following core themes:

- Person-centred digital ecosystems within integrated social and health systems. We should not expect people to adapt to systems; instead, systems should adapt to people. How do we build these person-centred systems?
- Insights from the cutting-edge of research into improving digital health literacy. Where are we now, and where should we go from here to reduce health inequalities?
- The role of modern media: using social marketing – and social media – for health promotion and protection. How can we protect people’s health from “unhealthy” advertisement and unsafe online spaces?
1

Introduction

Dr Mojca Gabrijelčič Blenkuš, EuroHealthNet President and public health specialist at the Slovenian National Institute of Public Health (NIJZ)

Dr Gabrijelčič Blenkuš warmly welcomed all the participants to the seminar. Noting that digitalisation is transforming our health systems and the health information we receive, she emphasised the need to navigate through these changes without leaving anyone behind. She further stated that whilst digitalisation has offered many opportunities, it is also causing the acceleration of consumerist influences. Quoting Prof. Ilona Kickbusch, Dr Gabrijelčič Blenkuš stated that “health is determined where people live, love, work and play, but also where they are googling and tweeting”, concluding that attention must also be paid to the ethical concerns of the digital realm, referencing the relevance of the Montreal Declaration for a responsible development of artificial intelligence.

Dr Natasha Azzopardi Muscat, Director of the Division of Country Health Policies and Systems, WHO Europe

Dr Azzopardi Muscat opened with a compelling data reality check, stating that the way we receive, understand and communicate health-specific information has drastically changed in the past 20 years. In fact, a recent study found that 72% of Europeans use the internet to search for health-related information, clearly showing that most individuals seek online avenues to find the information they need. With the pandemic accelerating the digitalisation of health, Dr Azzopardi Muscat emphasised the need for digital solutions on a number of fronts, including the fight against misinformation and alleviating workforce shortages.
Preliminary results from a new European survey on population health literacy¹ conducted by the WHO Action Network on Measuring Population and Organizational Health Literacy (M-POHL) show that accessing and interpreting digital health information is difficult for 22%-58% of the population. Individuals who are highly digital health literate gain more positive outcomes from the information search in terms of self-management of healthcare needs and adoption of healthy behaviours, thereby exacerbating existing health inequalities across the socio-economic gradient.

To tackle these challenges, she presented the WHO/Europe Resolution on health literacy (2019) and the Draft WHO European roadmap for implementation of health literacy initiatives through the life course as policy instruments designed to improve health literacy. Dr Azzopardi Muscat further noted that infodemic management has been a key WHO activity, together with the upcoming resolution and action plan on “Leveraging digital transformation for better health in Europe”, which aims to provide guidance and technical support on digital health strategies.

2

Session 1: Person-centred digital ecosystems

Moderated by Alison Maassen, Programme Manager, EuroHealthNet

Digital ecosystems aim to put people at the centre of integrated health and social systems, with the purpose of delivering multidisciplinary and collaborative services. They present an opportunity for people to have easier access to their health data, and better navigate the system. Nonetheless, for digital ecosystems to be truly person-centric, certain existing challenges and inequalities need to be confronted, such as the varying levels of digital skills and digital health literacy. Session 1 aimed to address the importance of a truly person-centred digital ecosystem and showcase good practices of its implementation.

¹ M-POHL (2021) HLS19 Project. Available at: https://m-pohl.net/HLS19_Project
The role of mHealth tools in digital ecosystems

Ms Belén Sotillos González – Innovation Officer, Andalusian Agency for Healthcare Quality, European mHealth Hub representative

Ms Sotillos González presented the European Innovation and Knowledge mHealth Hub, a joint collaboration between the International Telecommunication Union, the World Health Organisation and the Andalusian Regional Ministry of Health, implemented by a consortium of 17 partners. The Hub’s main work areas focus on mHealth assessment frameworks, evidence-based mHealth solutions, the integration of mHealth into health systems, ethics and its contribution to policy and implementation. She particularly highlighted ethics issues in the Hub’s work, noting that the quick guide on the ethical issues in mHealth Service Provision strove to achieve equitable access, transparency, agency and accountability.

The Hub also provides guidance on mHealth implementation for NCDs and other areas. Ms Sotillos González cited two examples from Hungary and the Czech Republic.

Digital Transformation of Health Systems in Estonia

Anett Numa, Digital Transformation Adviser, e-Estonia Briefing Center

Ms Numa gave an overview of milestones reached by Estonia in implementing digital solutions over the past 20 years, notably mentioning that 99% of medical services are available online. Blockchain technology is used to secure health information. To ensure the accessibility of services irrespective of digital health literacy, some e-services don’t require any digital skills – the e-Prescription, for example, allows individuals to get their prescribed medicine by presenting their ID card to a pharmacist. Moreover, the e-Prescriptions are visible electronically to participating pharmacists outside of Estonia via the new eHealth Digital Service Infrastructure (comprising 22 EU Member States).

Ms Numa also explained Estonia’s e-Ambulance solution, which effectively detects and geolocates emergency phone calls to an ambulance within 30 seconds. The dispatched paramedics also receive crucial health data in advance, such as blood type, allergies and current medicine prescriptions.
Looking ahead, Ms Numa explained that the Estonian system will prioritise prevention through the Healthcare 4.0 system, focusing on personalised medicine. Through genome-based analysis, people will feel more empowered to understand and manage their own health. Moreover, this system would support proactive health services, such as reminding at-risk groups for check-ups.

**Digital technology and health inequalities**

*Prof. Alisha Davies, Head of Research and Evaluation, Knowledge Directorate, Public Health Wales*

Prof. Davies explained that Wales has increased its focus on delivering user-centred health and social care through digital-driven platforms. However, she raised concerns about whether increased use of digital platforms would further exacerbate inequalities in access to health services. According to a survey conducted in 2018, approximately 1 in 10 people in Wales had no access to internet at home, with those having low self-reported physical and mental health being the most likely to lack access.

Prof Davies stated that COVID-19 has propelled a digital revolution – the so-called “4th industrial revolution”. With society being forced to have a more digital front-end across the wider determinants of health, the Scoping Review on Digital Technologies and Health Inequalities published by Public Health Wales examines how digital exclusion can have an impact on health. To ensure that the digital revolution has equitable benefits, Prof Davies notes that three core streams are highlighted in the scoping review: skills and literacy (training and ongoing support to navigate through the digital ecosystem), access (including infrastructural development, affordable data and technologies) and engagement (understanding the contributing factors and behavioural insights for better engagement and co-producing digital solutions).

Additional resources:
- Digital Communities Wales

**Q&A session**

Moderated by Alison Maassen, the Q&A session focused on the digital tools and literature mentioned in the presentations (European mHealth hub, Public Health Wales’ Scoping Review) as well as on the engagement of different partners and vulnerable
groups in such services. Based on Estonia’s experience, Ms Numa noted the importance of proper education for the elderly, and to engage them in simplified digital processes.

Session 2: Digital skills, health literacy and inclusiveness

Moderated Dr Sumina Azam - EuroHealthNet Executive Board Member and Policy Lead for Public Health Wales

There is a direct link between levels of digital health literacy and socioeconomic disparities. Therefore, the rapid digitisation of health and social services must account for the varying literacy and accessibility levels. This requires a multidisciplinary approach that empowers citizens and helps build the necessary skills and environments in which all users can access and benefit from health and social services.

Session 2 aimed to explore the latest advances in research in the field, as well as recent policy developments, focusing on the importance of digital inclusion through the development of digital skills and digital health literacy.

Digital health literacy as the key for health and wellbeing

Prof Orkan Okan – Researcher, TUM Department of Sport and Health Sciences, Health Literacy, Technical University Munich

Prof Okan emphasised the relevance of health literacy, particularly as health systems rapidly digitise their services. Through health literacy, people can distinguish, navigate, and critically assess the volumes of bad and good information, which can, for instance, help citizens to understand and apply behavioural mitigation measures made by national authorities in response to the pandemic. According to a Corona-related Health literacy survey conducted in Germany in 2020, 50% of the population had low health literacy levels at the start of the pandemic, which steadily improved throughout the crisis. The survey further highlighted the link between lower health literacy and a lower social
gradient and that the most challenging task was to evaluate the impact of online media information.

Prof Orkan additionally spoke about the importance of early promotion of health literacy in schools, which can be a challenge since it is a relatively new field. He explained that German schools have been implementing the “education in the digital world” curriculum for a number of years and use this existing framework to address health literacy without adding on to an already overcrowded curriculum. He also spoke of another intervention “Nebolus” – a digital-based application promoting digital health literacy by using entertainment education and game elements.

Digital skills in healthcare - the EU policy landscape
Ms Katarzyna Ptak-Bufkens - Policy Officer, DG SANTE B1 (Performance of national health systems), European Commission

Ms Ptak-Bufkens provided an overview of the current EU policy context, as well as challenges and actions taken with respect to digital skills in healthcare. A major challenge for digital skills in healthcare is obsolescence of existing skills, which can only be overcome with sustainable and appropriate investments in skills such as training and education. In addition, wide variation in the use of digital tools and solutions remains across all EU Member States.

To address these challenges from the EU level, Ms Ptak-Bufkens presented a number of current and forthcoming actions:

- The **Pact for Skills Partnership** in the health ecosystem seeks to ensure that the improvement of skills is a priority. The current focus is on stakeholder alliances and partnerships in the health ecosystem, developing a system in place for skills intelligence, building a strategy, and mobilising implementation.
- A new **Joint Action** will be launched in 2022 to build capacity in effective forecasting and planning for the healthcare workforce.
- The **Recovery and resilience Facility (RRF)** has indicated that national plans should allocate at least 20% of budget to digital transition.
- As part of the **Technical Support Instrument**, the flagship initiative on Digital Skills for Digital Transformation of Health and Care Systems supports Member States in the development of roadmaps to improve digital skills.
- Through the **Horizon Europe** programme, the “Healthy Citizens 2.0” call for proposals focused on the digital empowerment and health literacy of citizens.
- Under **Digital Europe programme**, 3 calls were launched, with the intention of advancing digital skills.
She also grounded these actions in the wider policy context, specifically highlighting:

- **The European Pillar of Social Rights Action Plan**, which focuses on engaging at least 60% of adults in training every year, aiming for at least 80% of those aged 16-74 to have basic digital skills.
- **The Digital Compass Path**, which sets policy objectives for 2030, and a **Path to a digital decade**, with its implementation plan, also place digital skills are at their core, together with the digitalisation of public services.

**Community-based interventions for digital health literacy**

*Mr Lars Münter - Head of International Projects Unit for Danish Committee for the Health Education, Project Lead Communication at Nordic Health 2030 Movement, initiator of the Self-Care In Europe-network*

Mr Münter’s presentation focused on integrating community and cross-sectoral involvement in the development of digital solutions and gave a three-fold explanation as to why this is necessary. Firstly, digital technology needs to be fit for purpose by involving end-users and understanding what is important to them. Secondly, he emphasised the importance of trust in services provided, which can be obtained through co-creation processes with users. Lastly, approaching digital developments cross-sectorally will ensure better quality. New digital solutions need to factor in the adaptation period users require to become familiar with the new system, even if their digital literacy levels are high. Behavioural insights should be used to draw on the sociological patterns of end-users to improve quality (and perceptions of quality).

Mr Münter concluded his intervention by stating that the framework ecosystems around digital services may not be as advanced as the digital services themselves, and that co-creation and co-development with citizens should be standardised. Moreover, he reflected on the role of healthcare professionals in guiding citizens in their use of digital solutions and suggested that they must also be given space to gain digital skills.

**Q&A Session**

Moderated by Dr Sumina Azam, the Q&A session focused on health literacy interventions at schools, EU opportunities, and advocacy programmes for citizen engagement in digital tools development. Prof Okan stated that to ensure the promotion of health literacy, schools should link this topic to existing curricula elements. Ms Ptak-Bufkens said that European Commission gives Member States opportunities to adapt legislative and infrastructural solutions to the national context, such as through the RRF and the Cohesion Funds, combining both hard and soft investments. Mr Münter noted
that digital health literacy could also be taught in-person, ensuring that the ethical aspects and the usability of digital technology are more social.

4

Session 3: The role of modern media and marketing approaches in digital health literacy.

Moderated by Ms Lorna Renwick - EuroHealthNet Executive Board Member and Organisational Lead Health Equity at NHS Scotland

It has become increasingly common to look for health information online and via social media. While this offers the opportunity to mainstream health discussions among the general population, it also risks widening health inequalities, as not everyone has the same digital health literacy skills and resilience against misinformation and fake news. It also raises questions on how to effectively use social marketing strategies to support health promotion and mitigate misleading commercial practices online. Session 3 aimed at exploring the role of modern media and marketing approaches in digital health literacy and some best practices in the field.

Modern media and marketing approaches in digital health literacy
Prof Gill Rowlands – Professor of population health sciences, Newcastle University UK

Prof Rowlands explained that the core elements of digital health literacy are based on capacities to get hold of, appraise, and apply information on health in the digital space. As a General Practitioner, Prof Rowlands reflected on the challenges of the infodemic, noting that health and digital literacy are effectively a balance between the capacities of individuals, families and communities as well as the demands and complexities of the health system. Pointing out that the internet is a huge force for good, Prof Rowlands stated that, in fact, according to the European Commission’s “European citizens’ digital health literacy” report (2014), over half of the respondents used the internet to look up information to promote health, prevent illness or find out more about a disease. Whilst the younger groups have a much higher use than older people, trends indicate that the usage among the latter group is increasing. However, there is still a need to focus on
young people ("digital natives"), since they would be at a defining age where decisions about health behaviours would set them for life. Referencing the Digital Health Generation Project, she explained that in the face of the infodemic, 45% of surveyed youth worry about finding the correct information online, highlighting the role that systems have in promoting the use of safe tools. With respect to older people, she additionally noted that they are often excluded from the magic of the internet ("digital muggles") and tend to have a greater need for it because of the increased prevalence of longer-term and multiple chronic health conditions.

A broader study on health literacy conducted by Prof Rowlands indicated that only in the lowest groups of socioeconomic status, long-term health conditions were statistically linked with low health literacy. Lastly, she gave the example of the UK Act F.A.S.T campaign on taking immediate action when someone is having a stroke, as a good example of how modern media promotes health.

Q&A session
The Q&A focused on the need for education systems to teach children how to search for the correct health information. Health services and relevant staff are also key in forging pathways towards reliable sources, to help people build critical skills from a young age.

An introduction to the EuroHealthNet Thematic Working Group (TWIG) on Social Marketing to tackle Addictions
Ms Sigrid Troelstra, Scientific advisor Tobacco control, Trimbos Institute, the Netherlands
Ms Jennifer Davies, Policy officer Partnerships & Advocacy, Santé Publique France

Ms Troelstra introduced the scope of the TWIG, explaining that its aim is to share and exchange knowledge and best practices regarding social marketing strategies to tackle addictions and substance use, with a focus on alcohol and tobacco consumption. Against the backdrop of the COVID-19 crisis, she stated that social marketing strategies were disrupted, and harmful consumption patterns have increased, further increasing social and health inequalities. She highlighted the importance of using social marketing techniques and tools that can craft and change habits and help reduce inequalities. This

Social marketing is an approach used to develop activities aimed at changing or maintaining people’s behaviour for the benefit of individuals and society as a whole. Combining ideas from commercial marketing and the social sciences, social marketing is a proven tool for influencing behaviour in a sustainable and cost-effective way. - NSMC – National Social Marketing Center
will be a central focus of the working group, which currently comprises EuroHealthNet member organisations from Austria, England, Germany, France, Ireland, Italy, the Netherlands, Poland, Wales.

Engaging vulnerable groups in digital health – a good practice from the TWIG

Ms Justine Avenel-Roux - #MoisSansTabac Project lead, Sante Publique France

Ms Avenel-Roux provided the French context on tobacco smoking, describing the high smoking prevalence amongst disadvantaged groups. In this regard, the #MoisSansTabac campaign (the French equivalent to the “Stoptober” campaign) was tailored to also target this group. Careful selection of media and digital tools was driven by contextual settings, behavioural insights and third-party online data. Emphasis was also made on facilitating access to health professionals, since brief interventions with these professionals can increase the chance of successful tobacco cessation by 70%. Ms Avenel-Roux explained that the tobacco quitline, GP consultations and exclusive consultation during the campaign month were already free or reimbursed by the health insurance system. Their focus was therefore on creating a directory with some of the clinics which provide free consultations, to promote easier access.

Q&A session

Moderated by Ms Lorna Renwick, the Q&A round focused on the importance of different partnerships to effectively address inequalities. Prof Rowlands remarked on the value of engaging with local authorities to build skills among disadvantaged groups and communities, whilst Santé Publique France highlighted the need for complementary approaches between media, social marketing, digital health and partner strategies.

Concluding remarks

Ms Caroline Costongs, EuroHealthNet Director opened the final session describing EuroHealthNet’s efforts in digital health literacy – particularly noting the collaborative expert workshop on digital health literacy with the Portuguese Directorate-General of
Mr Clayton Hamilton, Coordinator at the Digital Health Flagship at World Health Organization Europe presented his reflections on the seminar:

- Europe's Digital transition work should address everyone’s needs and understand that digital and equitable access strongly involves investment in digital skills, literacy, connectivity, and accessibility/engagement.
- He noted that the discussions succinctly linked digital and health inequalities and commended the early intervention tools profiled during the event to close gaps in health literacy levels, as seen in Germany.
- Mr Hamilton noted that grassroots community involvement on the use of digital devices was another focal point, pointing out that uptake and acceptability of such solutions across populations is necessary.
- Lastly, he stated that modern media and social marketing clearly demonstrate the role of digital determinants in health, adding that different perspectives and consolidated partnerships are key to activate changing behaviours in society.

Ms Caroline Costongs closed the session by thanking all the speakers. In conclusion, she put forward three main points as calls to action:

- Public health professionals and policy makers need to consciously work towards a digital transformation that does not widen health inequalities. Health equity impact assessments should therefore be a golden standard in line of our work, which can be further integrated into EU-funded initiatives. Moreover, digital solutions need to be diversified by including both online and offline services to cater for heterogeneity prevalent in different societies.
- Public health stakeholders must be more involved in the legal and regulatory frameworks of digital services, including privacy issues, financial reimbursement of health apps and applying certification labels.
- All relevant stakeholders should continue building the body of knowledge on digital health literacy, evaluate interventions, take stock of existing efforts, and engage with actors holding different perspectives to truly bring forward the learning outcomes.
Our mission is to help build healthier communities and tackle health inequalities within and between European States.

EuroHealthNet is a not-for-profit partnership of organisations, agencies and statutory bodies working on public health, promoting health, preventing disease, and reducing inequalities.

EuroHealthNet supports members’ work through policy and project development, knowledge and expertise exchange, research, networking, and communications.

EuroHealthNet’s work is spread across three collaborating platforms that focus on practice, policy, and research. Core and cross-cutting activities unite and amplify the partnership’s activities.

The partnership is made up of members, associate members, and observers. It is governed by a General Council and Executive Board.

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