DIGITAL HEALTH

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ESCAPE. *Preparing healthcare professionals for cyberattacks*
Project No.2023-1-ES01-KA220-VET-000151536

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FACTSHEET – DIGITAL HEALTH

1. Definition

It refers to the broad range of information and communication technologies (ICTs) to support and enhance all phases of healthcare, including prevention, diagnosis, treatment, and management. It encompasses digital tools, health data usage, and connected devices1.

2. General importance

Digital health technologies increase access to care, particularly in remote areas. They increase efficiency through automation, cut costs by reducing hospital visits, and empower patients to manage their own health with real-time monitoring and data-driven insights. Digital health can also utilise AI as an efficient tool. It enables early diagnosis and personalised treatment, encouraging sustainability in the healthcare system.

Nevertheless, digital health also involves some risks that cannot be ignored. As cyberattacks on security increase, sensitive patient information may become a target for these criminal groups. Furthermore, some patients with limited access to the internet or low digital literacy may suppose a digital divide3.

3. Importance in health and care, and impact in quality of care

By enabling physicians to monitor the conditions of long-term patients from a distance, eHealth and digital health promote continuity of care. Higher levels of digital health literacy among older adults are associated with better quality of life because they encourage healthy habits and empower self-care, highlighting the significance of digital inclusion3. Nowadays, tools like telehomecare and remote patient monitoring enable chronic disease management at home, reducing hospitalisation and improving continuity of care4.

However, an excessive dependence on technology may result in fewer in-person encounters, which impacts empathy and the relationship between patients and providers. It might also imply that technical malfunctions could jeopardise lives and disrupt care continuity5.

4. What can I do as a healthcare professional?

- Embrace digital tools to improve patients' access, especially for the elder population.
- Take part in training and keep up with how to use digital tools to reduce errors and enhance patient care.
- Prioritise patients' security and data privacy by ensuring safe and ethical use of health technologies.
- Always keep updated for innovations in digital healthcare.

5. More information

5.1 Learning Materials

- Cybersecurity for your sector (JGT-1)
- An article exploring the current state of cybersecurity in healthcare. (IST-36)
- An infographic on security and cybersecurity devices used in different healthcare settings. (IST-38)
- An overview of cybersecurity in healthcare, focusing on the role of AI and its regulatory framework. (IST-39)
- Educational project on safe and responsible digital use. (IST-41)
- Digital Identities - With Security in Mind (BBS-25)
- Research paper on Cybersecurity and critical care staff: A mixed methods study (PRAMMER-29)
- Cyber-attacks are a permanent and substantial threat to health systems: Education must reflect that (PRAMMER-32)
- Systematically Applying Gamification to Cyber Security Awareness Trainings: A framework and case study approach (PRAMMER-35)

5.2 Relevant Videos

This video explains that digital health is the integration of technologies such as pharmacy systems, electronic health records, and clinical systems in aged care, modernising how care is delivered and managed.

What is Digital Health?
https://youtu.be/9mZ61Ya-RVY?si=7DE1vhr_uWNJtk4Q

The video explores emerging digital healthcare trends for 2025, showcasing how AI, wearable tech, and telehealth are reshaping clinical workflows, enabling remote monitoring, and improving patient care.

Healthcare Technology Trends 2025: AI Benefits, Wearable Use Cases and Telehealth Expansion
https://youtu.be/8OWdxCJcQVE?si=KHXoB2v6Pxj6z79-

The video explores emerging digital healthcare trends for 2025, showcasing how AI, wearable tech, and telehealth are reshaping clinical workflows, enabling remote monitoring, and improving patient care.

5. 3 Relevant Links

The world's largest virtual hospital provides remote care across 224 facilities through video consultations and digital monitoring in 44 specialities, increasing access, lowering costs, and improving patient outcomes. Similar virtual models are emerging in Spain and Ireland. https://www.ft.com/content/104151c3-f808-4c2d-a20a-b1394846772c

NHS virtual wards enable patients to receive hospital-level care from home via devices such as blood pressure monitors and tablets. This model reduces bed occupancy, accelerates recovery, and relieves healthcare system pressures. https://www.theguardian.com/society/2024/feb/07/how-virtual-nhs-wards-now-reality

This UK-based, tech-driven home-care provider reduced hospitalisation by 52%, predicted 80% of admissions 7 days in advance, and improved medication adherence in elderly patients through digitally enabled care. https://en.wikipedia.org/wiki/Cera_Care

6. Bibliography

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