

Making the link: eHealth and health equity

The World Health Organization's **Commission on the Social Determinants of Health** (CSDH) has identified principles and recommendations to tackle health inequities: the factors responsible for avoidable health inequalities, which persist globally and in the European Union. This publication is part of a series of summaries, updated and expanded online at www.equitychannel.net. It introduces how those and other recommendations, as part of evidence based health promoting approaches, could be applied to a range of European Union legislation, policies and programmes. The aim is to improve international, national and local policies and practices within and beyond health systems, in order to promote better health and well-being for all.

Why making the link matters

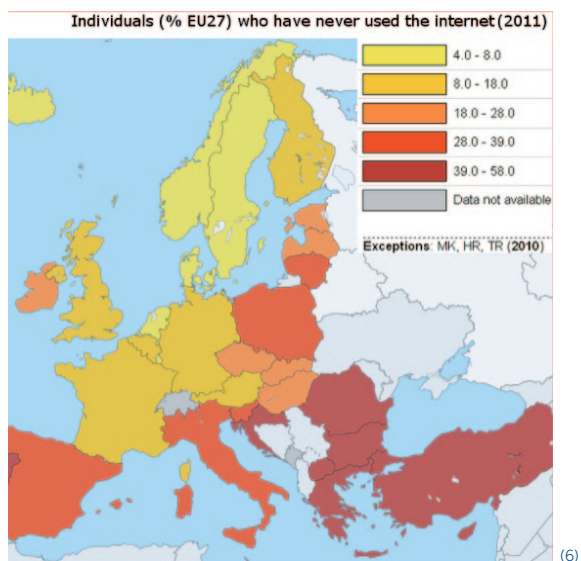
Among suggested solutions to the challenges of 21st century health systems, eHealth has many advocates. eHealth is a series of tools based on information and communication technologies (ICT) used to assist and enhance the prevention, diagnosis, treatment, monitoring, and management of health and lifestyle. eHealth promises opportunities to adapt to the changing nature of diseases associated with increased longevity, enable older people to live independent lives for longer, help boost the quality and output of healthcare services, manage the huge amount of health information which needs to be securely stored and accessed, and crucially - at a time when money has to be spent efficiently - deliver cost effective performance ⁽¹⁾.

eHealth promotion applications in EU	
Health monitoring technologies	Personalised physical activity systems
	Remote physical activity monitors
	Online health assessment resources
	Body signal monitors
Behaviour-supporting technologies	Smartphone applications
	Sports gadgets
	Mobile health services
	Government-provided eHealth promotion tools
	Online self-help tools
Health information resources	Shared health records
	Government health information portals
	Independent health information portals
	Private health advice
Online health communities	Health forums
	Sports communities
	Targeted social forums

Access to the internet via a computer or smartphone (and use thereafter) is a prerequisite for the take-up and use of eHealth, for healthcare professionals and citizens. However, large inequalities in levels of access exist in the EU based on age, level of education and geography. This 'Digital Divide' has consequent knock-on effects. It incurs social and ethical risks ⁽³⁾. As a result, the Digital Divide and uneven take-up of eHealth solutions risks exacerbating widespread and persistent inequalities in health ⁽⁴⁾

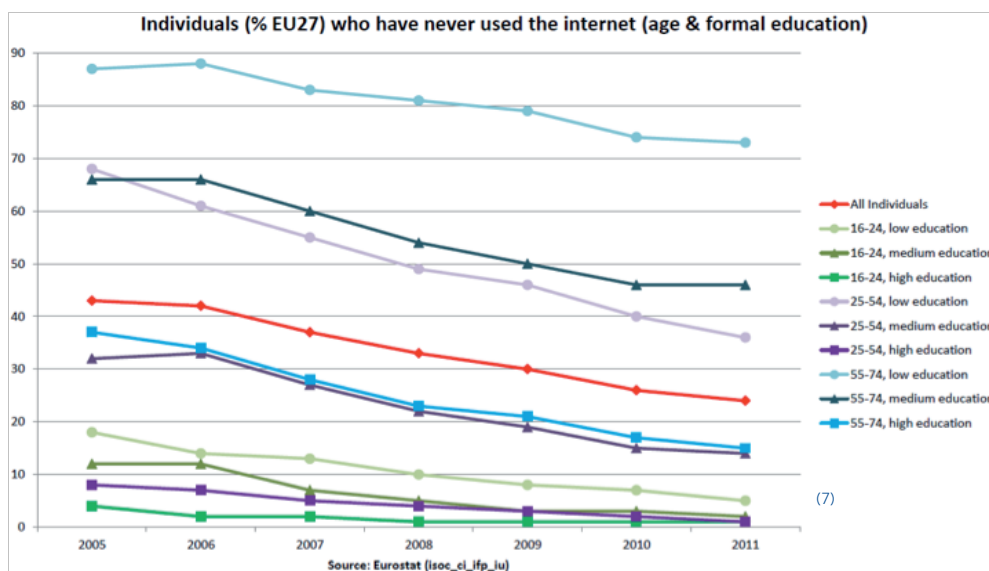
The situation

In 2011, 73% of households in the EU27 had access to an internet connection (up from 41% in 2004) and more than half of all individuals in the EU (56%) used the internet every day or almost every day ⁽⁵⁾. But such statistics mask large variations in use between different areas of Europe, with northern and western member states having higher rates of connection than southern and eastern ones, and urban areas having higher rates than rural ones. Such differences are to some extent reflected in rates of lifetime non-use of the internet.



Younger and more highly educated people have higher levels of internet use than those who are older and have more elementary levels of formal education. Although levels of lifetime non-use of the internet are falling, the level of non-use in lower educated older people is still high, standing at 73% in 2011. Overall, 24% of individuals across the EU had never used the internet in 2011, down from 43% in 2005.

Highly educated people are more likely to access information and make use of eGovernment services than people with a lower level of education, while lower educated people tend to spend significantly longer gaming and downloading or exchanging music and videos, and chatting and entertainment than more highly educated people. All of these activities require different sets of skills, indicating that certain groups of people may be more willing to make use of certain types of eHealth applications than others ⁽⁸⁾.



Availability of broadband also has an impact on the range and types of applications used by people online, as they are much less deterred by the costs of connection incurred through dial-up services. Broadband coverage in Europe is increasing, with 25.7% of citizens having access to a broadband connection in 2010 (up from 18.2% in 2007). EU statistics indicate that availability of broadband stimulates more regular use of the internet, higher levels

of use by disadvantaged people, the searching for information about health-related services and use of eGovernment services ⁽⁹⁾. While the relationship between any kind of internet access at home and many of these activities is much stronger than simple availability of broadband, broadband is doubtless essential for many data-intensive healthcare infrastructure projects ⁽¹⁰⁾.

Although part of the solution to the Digital Divide is enabling physical access, another part needs to deal with improvement of ICT skills, motivation and cost. Eurostat data about non-users of the internet from 2008 show that 38% had no need of the internet, that the costs of buying a computer to access the internet (one-fourth) and connecting to it (21%) were too high, that non-users lacked the required skills (24%) and that security concerns deterred them (5%). More worryingly, perhaps, in terms of eHealth, 14% stated that they simply did not want to use it at all ⁽¹¹⁾. Here the situation could be improved through educative interventions, but it is also widely acknowledged that cultural and environmental factors play a role in determining how keen people are to 'log on' ⁽¹²⁾.

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Setting an example

MedCom

Danish health information network MedCom is a co-operative venture between authorities, organisations and private firms linked to the Danish healthcare sector. It enables citizens to access health information, doctors to access citizens' medication lists, and use of electronic referrals thereby avoiding data entry. Studies suggest that MEDCOM has delivered substantial cost savings ⁽¹³⁾.

Computeria

Sought to help young people share their ICT skills with older people, and for older people to act as mentors for younger people in turn. This resulted in intergenerational dialogue, increased ICT skills in older people, and shared experience and knowledge in young people at the same time as helping them to take a step towards paid employment ⁽¹⁴⁾.

Pathways to progress

EU initiatives

Development of eHealth fits into the objectives of the EU2020 Strategy for Smart, Sustainable and Inclusive growth and can potentially benefit various European objectives on health, employment, regional development, research, innovation, industry and the internal market. ICT-based solutions for effective provision of health services are therefore supported through different initiatives, including the Digital Agenda for Europe, the European Innovation Partnership on Active and Healthy Ageing, and the Directive of the European Parliament and the Council on the application of patients' rights in cross-border healthcare (Article 14).

In March 2011, the European Commission launched a consultation on the eHealth Action Plan (eHAP) 2012-2020, to help consolidate the actions which have been addressed to date, take them a step further where possible, and provide a longer-term vision for eHealth in Europe ⁽¹⁵⁾. In December 2011, it adopted a Decision establishing an eHealth Network, as foreseen by the Directive on patients' rights in cross-border healthcare ⁽¹⁶⁾. The Network brings together the national authorities responsible for eHealth on a voluntary basis to work on common orientations for eHealth. The aim is to ensure EU-wide interoperability of electronic health systems and wider use of eHealth.

The Digital Agenda for Europe lays out the EU's overall strategy for maximising the potential of ICT, and for achieving ICT-related 2020 Objectives. Three of its goals have potential to reduce the digital divide: 1) empowering all Europeans with digital skills and accessible online services, 2) increasing Europeans' access to fast and ultra-fast internet, and 3) enhancing trust and security. One of the means of doing so is making available basic broadband to all Europeans by 2013. However, given a yearly increase in broadband penetration of just 1.3% (2010-2011), it will take another 9 years before we reach this target ⁽¹⁷⁾. Potentially more ambitious targets include ensuring that by 2020 all Europeans have access to internet speeds above 30 Mbps, and 50% to above 100 Mbps.

The European Innovation Partnership on Active and Healthy Ageing aims to bring together a broad range of stakeholders from different sectors (business, government, third sector, etc.) to pilot and mainstream effective solutions with the overall aim of increasing the average healthy lifespan in the European Union by two years by 2020. Its three objectives are to: 1) improve the health and quality of life of Europeans with a focus on older people, 2) support the long-term sustainability and efficiency of health and social care systems, and 3) enhance the competitiveness of EU industry through business and expansion in new markets ⁽¹⁸⁾.

Given the potential advantages offered by eHealth, specific recommendations can be made to help overcome the barriers presented by the Digital Divide:

1. eHealth may have negative consequences on health equity if measures are not taken to ensure balanced adoption of tools and services across population groups and between member states. Certain services may be more likely to benefit highly educated and younger people, and they should therefore not be favoured at the expense of existing frontline services unless issues of equity can be adequately addressed. On the other hand, those groups in society which are least likely to have easy internet access, such as older, disabled or unemployed people are often those who have most need of health services. Promoting the accessibility of eHealth services to such groups should therefore be a top priority.
2. In terms of enabling access, efforts should be placed on making internet access available to all rather than rolling out (ultra-fast) broadband to the few. However, increased broadband penetration and uptake would encourage wider use of internet applications.
3. eHealth solutions should aim to level up skills across the social gradient, which has important benefits for healthy whole populations. Investments should be made to increase levels of ICT literacy for all.
4. The EU recognises the importance of reducing health inequalities ⁽¹⁹⁾ and the importance of considering health in the formulation of policies in all areas ^(20, 21). It is therefore important that the promises extended by eHealth help reduce inequalities in health rather than exacerbate or create them.
5. Improve general levels of education. Not only are higher levels of education associated with better health, but people who are illiterate could be further jeopardised by increased reliance on eHealth.

Additional Information

- **What is e-health?** In: Journal of Medical Internet Research. Available at: <http://www.jmir.org/2001/2/e20/>.
- **The Digital Divide in Europe.** Available at: <http://www.utwente.nl/gw/mco/bestanden/digitaldivide.pdf>

Contact

Please visit our website – equitychannel.net/publications – for the additional Policy Précis in this series. Join the Equity Channel community to add your comments or publicise your work in this field.

Sources

- (1) See http://ec.europa.eu/health/ehealth/policy/index_en.htm
- (2) **From Otte-Trojel, T. (2011) - eHealth promotion and equity in the EU.** Contact: teresetrojel@gmail.com
- (3) See <https://wcd.coe.int/ViewDoc.jsp?id=1207291>.
- (4) See for example http://www.publicservice.co.uk/feature_story.asp?id=17552.
- (5) **Eurostat: Internet use in households and by individuals in 2011.**
Available at: http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-SF-11-066/EN/KS-SF-11-066-EN.PDF.
- (6) **Produced by EuroHealthNet using Eurostat data, April 2012.**
- (7) **Produced by EuroHealthNet using Eurostat data, April 2012.**
- (8) See <http://www.utwente.nl/gw/mco/bestanden/digitaldivide.pdf>.
- (9) **See Digital Agenda Scorecard 2011 data.**
Available at: http://ec.europa.eu/information_society/digital-agenda/scoreboard/graphs/index_en.htm.
- (10) **Produced by EuroHealthNet using Eurostat data, April 2012.**
- (11) **Eurostat Regional Yearbook 2009.**
Available at: http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-HA-09-001/EN/KS-HA-09-001-EN.PDF
- (12) See <http://www.utwente.nl/gw/mco/bestanden/digitaldivide.pdf>.
- (13) See <http://kb.good-ehealth.org/downloadFieldDocument.do?documentId=3>.
- (14) See <http://www.rein-network.org/computeria/index.php>.
- (15) See http://ec.europa.eu/information_society/activities/health/ehealth_ap_consultation/index_en.htm.
- (16) See <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:088:0045:0065:EN:PDF>.
- (17) **Based on figures available for “Share of fixed broadband lines equal to or above 2 Mbps”**
Available at: http://ec.europa.eu/information_society/digital-agenda/scoreboard/graphs/index_en.htm.
- (18) See http://ec.europa.eu/research/innovation-union/index_en.cfm?section=active-healthy-ageing.
- (19) See <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0567:FIN:EN:PDF>.
- (20) See http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/lsa/91929.pdf.
- (21) See <http://eurohealthnet.eu/sites/eurohealthnet.eu/files/publications/Treaty-of-Lisbon-Policy-Briefing.pdf>.



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