

POLICY MAPPING ON EHEALTH POLICIES AND INITIATIVES (INCLUDING ON CANCER CARE) IN **CYPRUS**

This Country Factsheet was prepared for the eCAN Joint Action. It is prefilled with publicly available information and was sent for review to country experts on eHealth and cancer care. The Country Factsheet serves as the basis for the preparation of an overview of eCAN relevant policies and initiatives in all EU and EEA countries.

eCAN is a Joint Action (JA) of 16 partners in EU-Member States on ‘Strengthening eHealth including telemedicine and remote monitoring for health care systems for cancer prevention and care’. eCAN aims to bring the benefits of eHealth to all citizens and patients across EU-Member States (MS) focusing on cancer prevention and care. There is a need to harmonize telemedicine regulations and to explore the efficacy of teleconsultation programs and telemonitoring in the cancer field.

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The country factsheet includes chapters on:

1 definition

2 governance

3 strategies/policies

4 legislation

5 cancer specific eHealth solutions

Any questions? – Please get in touch via ecan@goeg.at.

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1 DEFINITIONS

Table 1 : Deviations in the use of international definitions for eHealth terms - Cyprus

Term	Definition	Deviation
eHealth	The WHO defines eHealth as « the use of information and communication technologies (ICT) for health ». It also says that « eHealth is the transfer of health resources and healthcare by electronic means. » ¹	No deviation from definition. ²
mHealth	« Mobile health (mHealth) is defined by the World Health Organization's (WHO) Global Observatory for eHealth as « medical and public health practice supported by mobile devices, such as mobile phones, patient monitoring devices, personal digital assistants (PDAs), and other wireless devices ». ³	No deviation from definition.
dHealth	The EU defines digital health (dHealth) and care as referring to « tools and services that use information and communication technologies (ICTs) to improve prevention, diagnosis, treatment, monitoring and management of health-related issues and to monitor and manage lifestyle-habits that impact health ». ⁴ The WHO defines digital health as « the field of knowledge and practice associated with the development and use of digital technologies to improve health. Digital health expands the concept of eHealth to include digital consumers, with a wider range of smart-devices and connected equipment. It also encompasses other uses of digital technologies for health such as the Internet of things, artificial intelligence, big data and robotics. » ⁵	No deviation from definition.
telehealth	The WHO defines telehealth broader than telemedicine « as it includes computer-assisted telecommunications to support management, surveillance, literature and access to medical knowledge. » ⁶	No deviation from definition.
telemedicine	The EU Commission defines telemedicine as follows (EU Commission definition, COM (2008)689) : « Telemedicine is the provision of health care services, through the use of ICT, in situations where the health professional and the patient (or two health professionals) are not in the same location. It involves the secure transmission of medical data and information, through text, sound, images or other forms needed for the prevention, diagnosis, treatment and follow-up of patients. » ⁷	Yes. ⁸

¹ 6. eHealth, Factsheet for European Parliament (who.int)

² https://www.moh.gov.cy/moh/cbh/cbh.nsf/page20_en/page20_en?OpenDocument

³ World Health Organization *Frequently asked questions on Global Task Force on digital health for TB and its work*. [2017-02-27]. <http://www.who.int/tb/areas-of-work/digital-health/faq/en/> website. In *mHealth Assessment: Conceptualization of a Global Framework - PMC (nih.gov)*

⁴ [Events - Smart4Health](#)

⁵ [Digital health EURO \(who.int\)](#)

⁶ [Telehealth – DigitalHealthEurope](#)

⁷ [Telemedicine – DigitalHealthEurope](#)

⁸ <https://www.NeHA.gov.cy/wp-content/uploads/2022/10/%CE%9F-%CF%80%CE%B5%CF%81%CE%AF-%CE%97%CE%BB%CE%B5%CE%BA%CF%84%CF%81%CE%BF%CE%BD%CE%B9%CE%BA%CE%AE%CF%82-%CE%A5%CE%B3%CE%B5%CE%AF%CE%B1%CF%82-%CE%9D%CF%8C%CE%BC%CE%BF%CF%82-%CF%84%CE%BF%CF%85-2019.pdf>

Term	Definition	Deviation
teleconsultation	PAHO describes teleconsultation (also sometimes referred to as remote consultation or telehealth), as « interactions that happen between a clinician and a patient for the purpose of providing diagnostic or therapeutic advice through electronic means. » ⁹	No deviation from definition.
health app	Essén et al. 2022 define health apps as « a computer program or software application (designed to run on a mobile device) “intended to be used specifically for managing, maintaining, or improving the health of individual persons, or the delivery of care” (ISO https://www.iso.org/standard/78182.html (2021), p 5). »	No deviation from definition.

Further information:

- ‘Health data’ means the entirety of stored biomedical data of any form, diagnoses, assessments, biosignals, laboratory results, imaging, other diagnostic and therapeutic interventions, medical prescriptions and information of any kind, in relation to each citizen’s condition and health development from birth to death and includes records drawn up by the provider in writing, electronically or otherwise.

2 GOVERNANCE

Table 2 : Overview on eHealth governance - Cyprus

Question	Answer	Comments/Experience
Is there a Ministry or State Secretariat explicitly in charge of eHealth/dHealth? If so, which Ministry ?	Yes	The use of electronic health for the prevention of disease, the promotion of health and the effective and safe provision of health services to citizens is under the direct responsibility of the National e-Health Authority (NeHA), under the Ministry of Health, This Authority is also responsible for the implementation of the e-Health Record system, the regulation of the storage and use of biomedical information and telemedicine.
Does the Ministry who is in charge of health care also have a specific Department or Unit in charge of eHealth/dHealth	Yes	NeHA has in the provisions of the law a specific department in charge of eHealth. Some of these functions are outsourced.
Is there a national eHealth governance board?	Yes	The terms for the managements Board of the National e-Health Authority are included in the Electronic Health Law of Cyprus (No.59(I)/2019). ¹⁰
Is there a public eHealth agency such as Elga GmbH in Austria or ANS in France? At which level (national, regional)? Which functions does this agency cover?	Yes	Yes, there is a National eHealth Authority (NeHA). ¹¹ NeHA undertakes the challenge of defining the structure and content of Cyprus’ integrated Electronic Health Record (EHR) system. Their vision is that the outcome and reference implementation of the project will establish the foundations of the country’s broader

⁹ <https://www3.paho.org/ish/images/docs/covid-19-teleconsultations-en.pdf?ua=1>

¹⁰ [Electronic Health Law of Cyprus \(No.59\(I\)/2019\)](#)

¹¹ <http://www.NeHA.gov.cy/moh/NeHA/NeHA.nsf/home/en/home.en?openform>

Question	Answer	Comments/Experience
		eHealth ecosystem adhering to the Electronic Health Law of Cyprus (No.59(I)/2019).
Are dHealth / eHealth tools in the outpatient sector publicly paid or covered in your benefits package (e.g. by sickness fund or national health service). If yes, please describe how.	Yes	Nowadays, the continuous improvements in the operating rules, protocols and IT system ¹² of the HIO reflect the philosophy of GHS; A system that keeps evolving and adapting to the changing healthcare sector with an aim to develop solutions and resolve possible issues without negating the basic principles of operation of the GHS. Over the last three years, the Cypriot healthcare sector has managed to provide a comprehensive package of benefits that cover primary, outpatient and inpatient care, bringing the public and private sectors under the same umbrella. In doing so, the healthcare sector in Cyprus has embraced some of the benefits of e-health and has taken a first step to a more holistic approach when it comes to the handling of medical information.
Are dHealth / eHealth tools in the inpatient sector automatically covered in your benefits package or do you need to pay extra (e.g. for telehealth consultations or telereha) compared to standard treatments?	Yes	Telemedicine reimbursement is in place. All consultations are covered under HIO system as described above.
Are there any comprehensive cancer centres focussing on ehealth or telehealth treatments? If yes, which ones and for which specific fields?	No	In Cyprus there are no comprehensive cancer centres. The CCRI (Cyprus Cancer Research Institute) but no comprehensive cancer centre. Also, the German Oncology Centre and Bank of Cyprus Oncology Centre are both no CCCs, but full members of the OECC (Organisation of European Cancer Centres).

Further information:

Please note all relevant further information regarding ecosystem/governance that you consider useful in the context of eHealth and cancer care in your country:

- The implementation of the founding legislation of NeHA and the creation of a bank of electronic health records has as its primary objective the facilitation of the exchange of medical information among all medical and research parties, e.g., the support and promotion of scientific research using medical data. In this way, interoperability in the wider health sector in Cyprus is being promoted, while at the same time it is also possible for medical data to be gathered and controlled thanks to the creation of a single terminal point for the management and administration of medical information. This single terminal point system will facilitate the maintenance and distribution of huge volumes of medical data produced daily by public and private hospitals, as well as other various health providers within and outside the General Health System.

¹² https://www.gesy.org.cy/sites/Sites?d=Desktop&locale=en_US&lookuphost=/en-us/&lookuppage=hioinformationtechnologysys

3 STRATEGIES/POLICIES

Table 3 : Overview on strategies and policies for eHealth and cancer care - Cyprus

Question	Answer	Comments/Experience
Is there a national eHealth strategy?	Yes	A report has been developed for NeHA, specifically the 'Implementation of deliverables related to the development of the Strategy of the National Electronic Health Authority of Cyprus, the implementation of a cost-benefit study, as well as the establishment of a document of specifications for the creation of a single bank of electronic health files based on the authority's legislation (Law 59(I)/2019)'. It is a condensed version that aims to present four strategic operational models through which NeHA will be able to transform its founding legislation (59(I)/2019) into a mature and ready-to-implement project. These four strategic models have been evaluated and prioritized based on their cost and time for implementation, to have enabled the delivery of a cost-benefit analysis and definition of technical specs for the identified model.
If yes, which stakeholder groups have been included in drafting the national eHealth strategy?	NeHA, HIO, SHSO, CAPH, CMA and the University of Cyprus	Through a series of various meetings and workshops, key stakeholders such as NeHA, HIO, SHSO, CAPH, CMA and the University of Cyprus were consulted to fully understand the current situation in the domestic health system. These meetings confirmed how important the creation of a potential Data Bank is for the Cypriot health network, as today, there is very little medical data that is standardized, shareable and of high quality available and accessible to health professionals. On the one hand, there is a heavy reliance on the manual creation of medical records. On the other hand, larger hospitals are establishing local electronic health registries to enable their medical data locally in the short term and nationally in the longer term.
Are there regional eHealth strategies? If so, can you indicate whether in all regions or only some? Can you provide some (exemplary) documents ?	No	All districts are covered by the global, i.e., national policy.
If yes, which stakeholder groups have been included in drafting such regional strategy/ies?	N/A	No further information available.
Are there strategy/ies explicitly referring to / including eHealth cancer care?	N/A	No further information available.
If not, are there discussions ongoing to develop a national eHealth strategy?	N/A	No further information available.
Is there a National Cancer Plan? And does it refer to eHealth?	Yes	In 2019, Cyprus launched its updated National Cancer Strategy, based on EU guidelines. ¹³ The strategy includes several suggested actions in the field of eHealth such as: <ul style="list-style-type: none"> • Designing and installing appropriate system software, common to all population programs;

¹³ [https://www.moh.gov.cy/Moh/moh.nsf/All/E534DDEEBC9AC093422579D70039D61E/\\$file/Εθνική_Στρατηγική_Καρκίνου.pdf](https://www.moh.gov.cy/Moh/moh.nsf/All/E534DDEEBC9AC093422579D70039D61E/$file/Εθνική_Στρατηγική_Καρκίνου.pdf)

Question	Answer	Comments/Experience
		<ul style="list-style-type: none"> Promotion of electronic declaration of cancer; Linking the Cancer File with other files (Formalizing the existing interface with the Cause of Death File and interface with the existing files).
In the light of the EU „Beating Cancer Plan” – are there any recent plans to update or modify existing plans? If yes, what is the timeline?	No	Cyprus has already updated the National Cancer Strategy taking the holistic approach as the Europe’s Beating Cancer Plan covering the whole cancer pathway in five areas: prevention; early diagnosis and treatment; psychosocial support, reintegration and palliative care; case reporting and a cancer registry; and research.
Are there any indicators in eHealth policy or national programmes on cancer care measuring the progress of the use of eHealth in cancer care?	N/A	No further information available.
Are there any other cancer care specific eHealth initiatives, f.e. by other stakeholders than policy makers / public authorities?	N/A	No further information available.

4 LEGISLATION

Table 4 : Overview on eHealth and cancer legislation - Cyprus

Question	Answer	Comments/Experience
How would you evaluate the current state of legislation of eHealth in your country in general?	N/A	No further information available.
Is there legislation on how to use telemedicine in general?	Yes	Existing regulation and evaluation process for telemedicine. ¹⁴
Is there legislation explicitly referring to cancer prevention?	N/A	No further information available.
Is there legislation explicitly referring to / including eHealth cancer care?	N/A	No further information available.
If yes, which of these legislation(s) do you consider most important in the context of eHealth and cancer care? And why?	N/A	No further information available.
If no, are there any reasons or barriers to the fact that there is no or only limited cancer specific eHealth legislation (i.e., discussions still ongoing, conflicting opinions or other).	N/A	No further information available.
What could be improved or would need to be done to improve this legislation for eHealth in cancer care in your country?	N/A	No further information available.

¹⁴ [Electronic Health Law of Cyprus \(No.59\(I\)/2019\)](#)

5 CANCER SPECIFIC EHEALTH SOLUTIONS

Table 5 : Overview on cancer specific eHealth solutions in use – Cyprus

Area of application/ type of solutions	Login Websites	Apps	Webinars	Multi-disciplinary teleconferences (HCP-HPC)	Teleconsultation (HCP-patient)	Telemonitoring via devices
Ecosystem	Yes, e.g., in 2008 creation of Information System of the 2 main hospitals of the country (Nicosia and Famagusta) followed by the implementation and use of the National Patient Record in 2013 in these 2 hospitals – but no personal health space for patients. eHealth4U undertakes the challenge of defining the structure and content of Cyprus’ integrated Electronic Health Record (EHR) system. Their vision is that the outcome and reference implementation of the project will establish the foundations of the country’s broader eHealth ecosystem adhering to the Electronic Health Law of Cyprus (No.59(I)/2019).	-	-	-	-	-
Prevention of Cancer	-	Yes, e.g., the lifepal application is a ‘smart’ mobile health tool for the early detection of various forms of cancer and offers users potentially life-saving	-	-	-	-

Area of application/ type of solutions	Login Websites	Apps	Webinars	Multi-disciplinary teleconferences (HCP-HPC)	Teleconsultation (HCP-patient)	Telemonitoring via devices
		continuous recording of various symptoms.				
Treatment of Cancer	-	-	-	Yes, e.g., tumor boards like the ones at the Bank of Cyprus Oncology Centre and the German Oncology Centers where multidisciplinary team meetings (known as Tumour Boards) have been held for several years. Weekly meetings are held for the most common types of cancer, such as breast, gastrointestinal and lung cancer. Meetings for almost all other malignancies are organised more infrequently.	-	-
'Living with cancer'	-	-	-	-	-	-
Rehabilitation from Cancer	-	-	-	-	-	-
Palliative Cancer Care	There is no legislation of palliative care in Cyprus.					

Table 6 : Number of eHealth solutions available and in use – Cyprus

Question	Answer	Comments/Experience
How many eHealth solutions (in the sense of medical devices and thus 'authority approved/certified') solutions are existing currently in your country in the context of cancer care/treatment?	N/A	No further information available.
Is there a website or other information on solutions that are recommended to the public for use (e.g. a selection of health apps that are recommended to cancer patients or in general)?	No	No further information available.
Can you give an estimation on how the split between private and public apps are available? Give an estimate percentage of public solutions.	No	No further information available.
How can providers and patients assess if the apps are reliable? Is there a certification or quality approval procedure in place? If yes, which kind of procedure?	No	No further information available.
How many Health Care Providers use such solutions? Which sector uses rather which types of solutions?	N/A	No further information available.