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

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.

This country factsheet has been pre-filled with publicly available information and pre-reviewed by

- Morten Sønderskov Frydensberg, Health Innovation Centre of Southern Denmark (RSYD),
- Linda Andersen Justi, Health Innovation Centre of Southern Denmark (RSYD),
- Vibeke Flytkjær, Specialist Consultant for TeleHealth at Region Nordjylland,
- Helle Hilding-Nørkjæ, Section Manager at Region Hovedstaden and
- The National Telemedicine Forum Denmark responsible for coordination and knowledge sharing of use of telemedicine in Denmark.

The pre-filled country factsheet was reviewed by

- Naja Vyberg, Tanja Malene Popp and Louise Bredal Mørk Lauridsen, all Danish Health Authority with support from the Danish Health Data Authority.

The country factsheet includes chapters on:

1 definitions

2 governance

3 strategies/policies

4 legislation

5 cancer specific eHealth solutions

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

1 DEFINITIONS

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

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.
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 ».[2]	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 ». [3] 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. »[4]	The term "dHealth" is not commonly used in Denmark, and it is not explicitly defined in any official policy documents or laws in the country.
telehealth	The WHO defines telehealth broader than telemedicine « as it includes computer-assisted telecommunications to support management, surveillance, literature, and access to medical knowledge. »[5]	No deviation from definition.
tele-medicine	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. »[6]	No deviation from definition.
tele-consultation	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. »[7]	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.

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

[2] 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/ webcite. In mHealth Assessment: Conceptualization of a Global Framework - PMC (nih.gov)

[3] Events - Smart4Health

[4] Digital health EURO (who.int)

[5] Telehealth – DigitalHealthEurope

[6] Telemedicine – DigitalHealthEurope

[7] https://www3.paho.org/ish/images/docs/covid-19-teleconsultations-en.pdf?ua=1

2 GOVERNANCE

Table 2 : Overview on eHealth governance - Denmark

Question	Answer	Comments/Experience
Is there a Ministry or State Secretariat explicitly in charge of eHealth/dHealth? If so, which Ministry ?	Yes	On a national level, several entities play a part in the digitization of the Danish healthcare system. The Danish healthcare system is divided into three levels – national, regional, and local municipality level. Each has their own primary area of focus and organization. On the national level, the Ministry of the Interior and Health of Denmark is the primary agent. Denmark has a tradition for a "flat" organizational structure with strong and independent ministries and operating authorities each covering their own resort area. However, the Ministry of the Interior and Health is coordinating the digitization of health care in close collaboration with entities from other administrative levels such as the Danish Regions and Local Government Denmark.[8]
Does the Ministry who oversees health care also have a specific Department or Unit in charge of eHealth/dHealth	Yes	The Danish Health Data Authority has a department called "Digital Health Solutions" (Digitale Sundhedsløsninger). However, digitization takes place on many levels.[9]
Is there a national eHealth governance board?	Yes	The National Board of Health IT (Den Nationale bestyrelse for Sundheds-it) consists of a broad representation of the relevant executive level health care actors who monitor, on a portfolio level, the national strategy for digital health, including telehealth, health IT and digital infrastructure.[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	There are several agencies dealing with the topic, including • Sundhedsdatastyrelsen; • MedCom (private-public company responsible for developing communication standards in national healthcare); • **Sundhed.dk**, a national platform, primarily funded by the regions. Through the *Sundhedsjournal* it provides cross sectorial access to health data, including test answers, for healthcare professionals and citizens. The data is provided from EPJ from the specific organisations; • FMK (Fælles Medicin Kort - shared medicine card), governed by the Danish Health Data Authority; • Denmark has two major EPJ (Electronic Patient Journals) on the regional level, and several for the local municipalities.
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	The tools recommended by the healthcare sector are funded through the universal healthcare. In rare cases, user payment may occur. There has been an emphasis on avoiding "bring your own device"-solutions.
Are dHealth / eHealth tools in the inpatient sector automatically covered in your benefits	Yes	All consultations, being it GP or at the hospitals, are free including telehealth consultations. However, some private actors also offer

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[8] https://sum.dk/english

[9] https://sundhedsdatastyrelsen.dk/da/english

[10] https://sundhedsdatastyrelsen.dk/da/strategier-og-projekter/bestyrelse-it

Question	Answer	Comments/Experience
package or do you need to pay extra (e.g. for telehealth consultations or telerehab) compared to standard treatments?		telehealth consultations 24/7. Those are usually funded by private health insurance.
Are there any comprehensive cancer centres focussing on eHealth or telehealth treatments? If yes, which ones and for which specific fields?	No	Yet, Denmark has no comprehensive cancer centres with a specific focus on telehealth. There are some centers under Danish Center for Comprehensive Cancer who work with projects related to telehealth. COMPAS, for example, has projects that focus on the use of phone/video consultations or outpatient training for cancer; however, the main theme is inequality in health and not telehealth.

Further information on ecosystem (actors):

- Danish Life Science Cluster
- Sundhed Danmark (private healthcare actors' organization)
- Danish Health Authority (responsible for developing cancer treatment package)
- National Telemedicine Forum (in Danish: Regionernes Telemedicinske Koordinationsforum/RTK)

3 STRATEGIES/POLICIES

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

Question	Answer	Comments/Experience
Is there a national eHealth strategy?	Yes	Strategy valid for 2018-2022, new national eHealth strategy expected in 2023 with the new government. In relation to the question of regional eHealth strategies, The Capital Region of Denmark leans toward the common national strategies found here:[11]
If yes, which stakeholder groups have been included in drafting the national eHealth strategy?	Several	Danish Ministry of Health, Danish Ministry of Finance & Danish Regions, and Local Government Denmark. The new government was formed in December 2022, which may change the scene of stakeholders. There will also be a formal hearing process, where a broader stakeholder group have an opportunity to voice their opinion.
Are there regional eHealth strategies? If so, can you indicate whether in all regions or only some? Can you provide some (examplary) documents ?	Yes	Digitization is mentioned as theme in the regional objective in the Capital Region of Denmark[12] and in this region's Capital Region of

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[11] https://sundhedsdatastyrelsen.dk/-/media/sds/filer/strategi-og-projekter/strategi-digital-sundhed/digital-health-strategy-2018_2022.pdf;
https://fm.dk/udgivelser/2022/maj/danmarks-digitaliseringsstrategi-sammen-om-den-digitale-udvikling/; https://fm.dk/nyheder/nyhedsarkiv/2022/juni/regeringen-kl-og-danske-regioner-enige-om-ny-faellesoffentlig-digitaliseringsstrategi/
[12] https://regionsyddanmark.dk/om-region-syddanmark/strategier-pejlemaerker-og-politikker-for-regionen/digitaliseringsstrategi/digitaliseringsstrategien-2022-2024;
https://www.regionh.dk/om-region-hovedstaden/udgivelser-fra-regionen/politikker-og-strategier/Sider/Maalbillede-for-Region-Hovedstaden.aspx;
https://www.rm.dk/sundhed/faginfo/center-for-telemedicin/Strategi-og-planer/regionens-digitaliseringsstrategi/

Question	Answer	Comments/Experience
		Denmarkstrategy for integrated citizen care in *the close and cohesive healthcare system.*[13]
If yes, which stakeholder groups have been included in drafting such regional strategy/ies?	Several	Local Government Denmark, Danish Regions.
Are there strategy/ies explicitly referring to / including eHealth cancer care?	No	Denmark has an eHealth strategy. And Denmark publishes several data on cancer. There is a report regarding cancer incidence that is published yearly.[14] Soon there will be a display of data corresponding to pathways with cancer[15]. In the meantime, data are represented on the NORDCAN website.[16] NORDCAN 2.0 is a web-based tool for displaying cancer statistics for the Nordic countries including Denmark. Data and information on cancer survival are publicly available as well.[17]
If not, are there discussions ongoing to develop a national eHealth strategy?	N/A	N/A
Is there a National Cancer Plan? And does it refer to eHealth?	Yes & No	There is a national cancer plan; however, it does not refer specifically to eHealth, but a part of a vision to work with strengthening integrated care. In the cancer package courses (kræftpakkeforløb), video consultations and telemedicine are described as an option for communication between the patient and healthcare professional. It is not addressed in a separate section or a supplemental treatment alternative.[18] A new cancer plan (cancer plan 5) is in preparation. This new cancer plan has, among many other focus areas, digital and technological support as a theme. The first draft of the cancer plan will be finished in fall 2024, it is not yet clear how and to which extent eHealth will be addressed within the document.
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	There is no indication that the government is directly considering changing the national cancer plan as a response to EU's "Beating Cancer Plan." However, in mid-2022 a broad coalition of political parties signed an agreement on a new health reform. This reform will contain a section related to social inequality in cancer. This will synergize with the experiences from other areas like diabetes, COPD, and heart disease, where telemedicine plays a larger role. As a part of the new government, a new commission was established. It will investigate a new structure for the Danish healthcare system. The results will first be available in mid-2024.
Are there any indicators in eHealth policy or national programmes on cancer care measuring	No	No specific eHealth related indicators. But Denmark publishes several data on cancer. There is a report regarding cancer incidence that is

13 https://www.regionh.dk/til-fagfolk/Sundhed/Politikker-Planer-Strategier/Sider/Strategi-for-det-n%C3%A6re-og-sammenh%C3%A6ngende-sundhedsv%C3%A6sen.aspx

14 Årsrapporter om nye kræfttilfælde - Sundhedsdatastyrelsen

15 Pakkeforløb for kræftområdet (esundhed.dk)

16 Nordcan 2.0 (iarc.fr)

17 Kræftoverlevelse (esundhed.dk)

18 https://www.sst.dk/da/Viden/Sygdomme/Kraeft/Kraeftplaner/Kraeftplan-IV

Question	Answer	Comments/Experience
the progress of the use of eHealth in cancer care?		published yearly.[19] Soon there will be a display of data corresponding to pathways with cancer[20]. In the meantime, data are represented on the NORDCAN website.[21] NORDCAN 2.0 is a web-based tool for displaying cancer statistics for the Nordic countries including Denmark. Data and information on cancer survival are publicly available as well.[22]
Are there any other cancer care specific eHealth initiatives, f.e. by other stakeholders than policy makers / public authorities?	Yes	The Danish Cancer Organization have developed several digital solutions to reduce the use of tobacco and alcohol as well as increasing the use of sunscreen.

4 LEGISLATION

Table 4 : Overview on eHealth and cancer legislation - Denmark

Question	Answer	Comments/Experience
How would you evaluate the current state of legislation of eHealth in your country in general?	N/A	No information available.
Is there legislation on how to use telemedicine in general?	Yes	There is a basic regulatory framework relevant for the use of telemedicine in Denmark. They set the standard for healthcare professionals. They are intertwined and refers to each other and therefore cannot stand alone. • ”Vejledning om ansvarsforhold m.v. ved brug af telemedicin mellem sundhedspersoner”. Loosely translated into *‘Guidelines on responsibilities in the use of telemedicine between health personnel’*.[23] • ”Bekendtgørelse af lov om autorisation af sundhedspersoner og om sundhedsfaglig virksomhed”. Loosely translated into *‘the Act on the authorization of healthcare professionals and on healthcare professional activities’*[24] • ”Bekendtgørelse om autoriserede sundhedspersoners patientjournaler (journalføring, opbevaring, videregivelse og overdragelse m.v.”. Loosely translated into *‘The Act on authorized healthcare professional’s patient journal (clinical record keeping, storage, disclosure, and transfer, etc.)*[25] • ”Bekendtgørelse af sundhedsloven”. Loosely translated into *The Health Act.*[26]

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[19] Årsrapporter om nye kræfttilfælde - Sundhedsdatastyrelsen
[20] Pakkeforløb for kræftområdet (esundhed.dk)
[21] Nordcan 2.0 (iarc.fr)
[22] Kræftoverlevelse (esundhed.dk)
[23] https://www.retsinformation.dk/eli/retsinfo/2021/9796
[24] https://www.retsinformation.dk/eli/lta/2019/731
[25] https://www.retsinformation.dk/eli/lta/2021/1225
[26] https://www.retsinformation.dk/eli/lta/2019/903

Question	Answer	Comments/Experience
		• How the use of telemedicine is implemented is decided on the local level. Either by national guidelines or local instructions (instrukser).
Is there legislation explicitly referring to cancer prevention?	No	Nothing specific on cancer prevention (however, in the cancer plans, legislative framework contains reference to rules regarding tobacco and alcohol as part of the cancer prevention plan).
Is there legislation explicitly referring to / including eHealth cancer care?	No	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 information available.
If no, are there any reasons or barriers to the fact that there is no or only limited cancer specific eHealth legislation.	N/A	No information available.
What could be improved or would need to be done to improve these legislation for eHealth in cancer care in your country?	N/A	No information available.

5 CANCER SPECIFIC EHEALTH SOLUTIONS

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

Note: eHealth solutions are everchanging and difficult to map for Denmark, a focus was set on 'government sanctioned' cancer-related solutions only (DK, RSD).

Area of application/ type of solutions	Login Websites	Apps	Webinars	Multi-disciplinary teleconferences (HCP-HPC)	Teleconsultation (HCP-patient)	Tele-monitoring via devices	Other, please specify
Ecosystem	-	Yes, several recommended apps (see overview websites in source, Danish only)[27]	-	-	-	-	NORDCAN 2.0[28] displaying cancer statistics
Prevention of Cancer	-	Yes, e.g., e-kvit and Min Læge[29]	-	-	-	-	-
Treatment of Cancer	-	Yes, e.g., Min Sundhed, Min Læge, HC And - Kræft (app for children) [30]	-	Yes, the regional and national multidisciplinary team conference (MDT)	-	-	-
'Living with cancer'	-	Yes, e.g., Sammenholdet and Bone@BC[31]	-	-	-	-	-
Rehabilitation from Cancer	Yes, the patient at home program for haematological patients, including cancer patients[32]	-	-	-	-	-	-
Palliative Cancer Care	-	-	-	-	Yes, e.g., 'Mest mulig I eget hjem' (as much as possible in your own home)	-	-

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[27] https://sum.dk/Media/637619503138949369/Analyse%20af%20guide%20til%20sundhedsapps.pdf ; https://www.sundhed.dk/borger/guides/apps-i-sundhedsvaesenet/apps-fra-sundhedsvaesenet-borger/

[28] Nordcan 2.0 (iarc.fr)

[29] https://itunes.apple.com/us/app/e-kvit/id892718537?mt=8; https://itunes.apple.com/dk/app/uv-indeks/id632599524?mt=8

[30] https://itunes.apple.com/dk/app/minsundhed-dk/id1453504446?l=da&mt=8; https://itunes.apple.com/dk/app/min-l%C3%A6ge/id1445003295?l=da&mt=8; https://apps.apple.com/us/app/hc-and-kr%C3%A6ft/id1090350551

[31] https://apps.apple.com/dk/app/sammenholdet/id1423599416; https://apps.apple.com/dk/app/bone-bc/id1376501586?l=da&ls=1

[32] https://www.en.patientathome.dk/

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

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?	(Yes)	Educational material, anti-smoking, and sunscreen.
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)?	(Yes)	www.Sundhed.dk (Health.dk)
Can you give an estimation on how the split between private and public apps are available? Give an estimate percentage of public solutions.	Yes	Apps are developed as PPI – partnership between Danish Health Authorities and The Danish Cancer Society. The split is approx. 50-50% between public and private apps.
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?	Yes	Under development. Qualification by association.
How many Health Care Providers use such solutions? Which sector uses which types of solutions?	N/A	Primary sector, being that prehab is a task for the municipalities. In some cases, outpatient care will also refer patients to eHealth solutions like the above-mentioned apps and others.

Further information:

- Patient Reported Outcomes (PRO). In the Region of Northern Jutland, several PRO forms for specific cancers are used (Breast cancer, Pituitary tumour (under development), Haematology, Immunotherapy, Side effect registration, Lung cancer, Prostate cancer, Testicular cancer, Living room PRO for cancer patients). All are supported by AmbuFlex in the Region of Central Jutland. You can read more about the individual solutions here (Danish).[33]

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[33] PRO-løsninger til kræftsygdomme - Region Midtjylland (rm.dk) PRO solutions for cancer – Region of Central Jutland (rm.dk)