

## POLICY MAPPING ON eHEALTH POLICIES AND INITIATIVES (INCLUDING ON CANCER CARE) IN **ESTONIA**

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 by

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The pre-filled country factsheet was **not reviewed** by country experts.

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](mailto:ecan@goeg.at).

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## 1 DEFINITIONS

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

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. » <sup>1</sup>	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 ». <sup>2</sup>	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 ». <sup>3</sup> 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. » <sup>4</sup>	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. » <sup>5</sup>	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. » <sup>6</sup>	No deviation from definition.
teleconsultation	PAHO describes teleconsultation (also sometimes referred to as remote consultation or telehealth), as « interactions that happen between a clinician and a patient for	No deviation from definition.

<sup>1</sup> [6. eHealth, Factsheet for European Parliament \(who.int\)](#)

<sup>2</sup> 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)*

<sup>3</sup> [Events - Smart4Health](#)

<sup>4</sup> [Digital health EURO \(who.int\)](#)

<sup>5</sup> [Telehealth – DigitalHealthEurope](#)

<sup>6</sup> [Telemedicine – DigitalHealthEurope](#)

Term	Definition	Deviation
	the purpose of providing diagnostic or therapeutic advice through electronic means. » <sup>7</sup>	
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 <a href="https://www.iso.org/standard/78182.html">https://www.iso.org/standard/78182.html</a> (2021), p 5). »	No deviation from definition.

## 2 GOVERNANCE

Table 2 : Overview on eHealth governance - Estonia

Question	Answer	Comments/Experience
Is there a Ministry or State Secretariat explicitly in charge of eHealth/dHealth? If so, which Ministry ?	Yes	The Ministry of Social Affairs is responsible for eHealth. <sup>8</sup> <i>‘The health system in Estonia is overseen by the Ministry of Social Affairs (MoSA) and its agencies, which include the</i> <ul style="list-style-type: none"> <li>• <i>State Agency of Medicines (SAM),</i></li> <li>• <i>Health Board,</i></li> <li>• <i>National Institute for Health Development (NIHD), and</i></li> <li>• <i>Health and Welfare Information Systems Centre (HWISC).</i></li> </ul> <i>The financing of healthcare is mainly organised through the independent Estonian Health Insurance Fund (EHIF). The main healthcare policy document is the National Health Plan (NHP), which integrates sectoral health plans, strategies, and development plans into one document.’<sup>9</sup></i>
Does the Ministry who oversees health care also have a specific Department or Unit in charge of eHealth/dHealth	Yes	Several departments in the Ministry of Social Affairs deal with eHealth issues: <ul style="list-style-type: none"> <li>• Health System Development Department</li> <li>• Digital Development Department</li> <li>• Public Health Department</li> <li>• Analysis and Statistics Department</li> <li>• Medicines Department</li> </ul> There is a general Health Board (in the form of an agency under the Ministry of social affairs) dealing with health care.
Is there a national eHealth governance board?	No	No eHealth governance ‘board’ but the Deputy Secretary-General for E-services and Innovation at Ministry of Social Affairs coordinates eHealth governance. The eHealth foundation receiving funds from the government has a board in place. <sup>10</sup>
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	The Health and Welfare Information Systems Centre (HWISC) is the public eHealth agency for Estonia. <sup>11</sup> <i>‘HWISC founded on 1 January 2017. It is a state agency administered by the MoSA, which consolidates the roles and responsibilities of the former Information and Communication Technology (ICT) department of the MoSA and the Estonian</i>

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

<sup>8</sup> <https://www.sm.ee/en>

<sup>9</sup> [Microsoft Word - Scientific annexes. TG 2019 03 25 final version.docx \(espon.eu\)](#)

<sup>10</sup> [Estonian-eGovernance-Case-Study.compressed.pdf \(askhealth.com.cn\)](#)

<sup>11</sup> <https://www.tehik.ee/en/about>

Question	Answer	Comments/Experience
		<i>eHealth Foundation (EHF). The scope of the HWISC is broader than eHealth, aggregating the eFunctions of health, labour, and social policy areas.<sup>12</sup></i>
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, infrastructure and some services	eHealth infrastructure is free of charge and general service as <a href="#">Patient Portal</a> are covered by public funds (accessible with using <a href="#">e-Identity</a> ). Some services in eHealth are also reimbursed including <ul style="list-style-type: none"> <li>eConsultations with oncologists have been available for family doctors since 2013 in cases of suspected cancer. An online support tool to assist with management and reporting of side-effects is in a trial phase with the participation of cancer patients, the cancer care team and family doctors<sup>13</sup></li> <li>Teleconsultations by video, web or phone contact was first applied and financed by the Health Insurance Fund in spring 2020 during the COVID-19 outbreak as a temporary measure. As of September 2020, EHIF finances the services on regular basis.<sup>14</sup></li> <li>Teletherapy (Health Insurance Fund)<sup>15</sup></li> </ul>
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, partly	In addition to appointments paid by the Estonian Health Insurance Fund, paid services can also be booked at the national e-booking system. The rule applies that only one appointment can be booked for services paid for by the EHIF, both with and without a referral. <sup>16</sup>
Are there any comprehensive cancer centres focussing on eHealth or telehealth treatments? If yes, which ones and for which specific fields?	Yes	The Cancer Centre of Tartu University Hospital provides a 'second medical opinion system' <i>'to offer additional medical opinions to patients of other than the Tartu University Hospital on the basis of existing medical documentation and tests performed. The service gives an opportunity to ask for a second opinion when you or your family member has been diagnosed with cancer.'</i> <sup>17</sup> In addition registration to a specialist doctors' appointment can be done online. <sup>18</sup>

<sup>12</sup> [Microsoft Word - Scientific annexes. TG 2019 03 25 final version.docx \(espon.eu\)](#)

<sup>13</sup> [EU Country Cancer Profile: Estonia 2023](#)

<sup>14</sup> <https://haigekassa.ee/en/partner/medical-institutions/development-telemedicine/teleconsultations>

<sup>15</sup> <https://www.haigekassa.ee/en/partner/medical-institutions/development-telemedicine/teletherapy>

<sup>16</sup> [National e-booking system](#)

<sup>17</sup> [Second medical opinion system \(kliinikum.ee\)](#)

<sup>18</sup> [Registration to a specialist doctor's appointment](#)

### 3 STRATEGIES/POLICIES

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

Question	Answer	Comments/Experience
Is there a national eHealth strategy?	Yes	The eHealth Strategic Development Plan for 2021-2025 is the current national eHealth strategy. <sup>19</sup> A new new data exchange platform supporting 'more flexible data exchange, modern solutions [with] an efficient development and management model, will be developed and implemented. <sup>20</sup>
If yes, which stakeholder groups have been included in drafting the national eHealth strategy?	Various	There were various stakeholders involved in the preparation of the eHealth strategy, including <ul style="list-style-type: none"> <li>• Ministry of Social Affairs,</li> <li>• Ministry of Economy and Communications and Ministry of Finance,</li> <li>• Estonian Health Insurance Fund,</li> <li>• Estonian Doctors Association,</li> <li>• Estonian Hospitals Association,</li> <li>• Estonian Information Technology and Telecommunications Union,</li> <li>• Estonian Society of Family Physicians,</li> <li>• NGO Chamber of Disabled People,</li> <li>• Tallinn Technical University of Technology,</li> <li>• University of Tartu Faculty of Medicine,</li> <li>• Chamber of Service Economy,</li> <li>• other experts from various fields.</li> </ul>
Are there regional eHealth strategies? If so, can you indicate whether in all regions or only some? Can you provide some documents ?	N/A	No further information available.
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?	Yes	The Personalised Medicine Implementation Strategy refers to incorporating genetic data on a wider basis are the prevention and early detection of breast cancer and personal recommendations for medicinal products. <sup>21</sup> The Estonian eHealth Strategic Development Plan 2020 refers to E-applications that are created for organisation of patient handling and logistics between different service providers, e.g. for coordination of screening studies (cancer screening register), coordination of the treatment of patients with chronic diseases after a treatment episode by a medical specialist or a visit to emergency care to transfer the responsibility to family physicians, etc. <sup>22</sup>
If not, are there discussions ongoing to develop a national eHealth strategy?	N/A	No further information available.

<sup>19</sup> [E-health strategic development plan 2021-2025](#)

<sup>20</sup> [New generation health information system UpTIS | TEHIK](#)

<sup>21</sup> [Implementation of Personalised Medicine in Estonia \(2019–2023\)](#)

<sup>22</sup> [Estonian eHealth Strategic Development Plan 2020](#)

Question	Answer	Comments/Experience
Is there a National Cancer Plan? And does it refer to eHealth?	Yes	The Cancer Control Plan 2021-2030 (in Estonian) refers to ' <i>information systems</i> '. <sup>23</sup>
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?	Yes	The Cancer Control Plan 2021-2030 was published in 2021. It identifies nine priorities related to cancer prevention, early diagnosis, access to high-quality treatment for all and ensuring high-quality care and follow-up for cancer patients. These priorities align with those set out in the Europe's Beating Cancer Plan. The Cancer Control Plan 2021-2030 will be complemented by an implementation plan, which will define responsibilities and timelines to reach the goals. <sup>24</sup>
Are there any indicators in eHealth policy or national programmes on cancer care measuring the progress of the use of eHealth in cancer care?	Yes	There is an Estonian Health System Performance Assessment Framework upon which annual analysis is performed. eHealth implementation in Estonia serves as a vehicle for data collection for performance assessment. In Estonia, data must be submitted by all health care providers. One specific indicator in the framework on eHealth analyses the 'share of referrals to e-consultation in all referrals by family physicians (i.e. the share of all e-consultation referrals sent through the eHealth information system within 12 months from referrals that have an e-consultation option). <sup>25</sup>
Are there any other cancer care specific eHealth initiatives, such as by other stakeholders than policy makers / public authorities?	Yes	There are several initiatives, e.g., <ul style="list-style-type: none"> <li>• University of Tartu coordinated UNCAN.eu. The information, collected within UNCAN.eu, will be used to address the urgent and critical scientific and medical challenges in cancer prevention, early diagnosis, treatment, and survival.<sup>26</sup></li> <li>• Dermtest, a skin cancer detection to chronic skin disease monitoring.<sup>27</sup></li> <li>• The Estonian Biobank project involved research and clinical work in two areas – breast cancer and cardiovascular disease (myocardial infarction). Database is linked with national registries (such as Cancer Registry and Causes of Death Registry), hospital databases, and the database of the national health insurance fund, which holds treatment and service bills.<sup>28</sup></li> <li>• OnKontakt provides e-support for cancer patients.<sup>29</sup></li> <li>• A Lung cancer patient journey development project.<sup>30</sup></li> </ul>

<sup>23</sup> <https://www.tai.ee/et/valjaanded/vahitorje-tegevuskava-2021-2030>

<sup>24</sup> <https://www.oecd.org/health/eu-cancer-profiles.htm>

<sup>25</sup> [The Development of the Estonian Health System Performance Assessment Framework - Situational Analysis Report 2022](#)

<sup>26</sup> [UNCAN.eu](#) and <https://genomics.ut.ee/en/node/144365>

<sup>27</sup> <https://dermtest.webflow.io/>

<sup>28</sup> <https://genomics.ut.ee/en/content/estonian-biobank>

<sup>29</sup> <https://www.haigekassa.ee/en/partner/medical-institutions/telemedicine-pilot-projects/brief-description-demo-projects>

<sup>30</sup> <https://connectedhealth.ee/novel-public-private-partnership-contributes-to-the-implementation-of-cancer-control-plan/>

## 4 LEGISLATION

Table 4 : Overview on eHealth and cancer legislation - Estonia

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	The provision of telemedicine services is allowed under Estonian law, and it is used on a regular basis. Telemedicine is largely unregulated, and thus the rules and requirements applicable to regular healthcare services apply also to telemedicine services. <sup>31</sup>
Is there legislation explicitly referring to cancer prevention?	Yes	In 2014, the government approved two green papers on alcohol and tobacco policy as well as a white paper on reducing illegal drug use. The latter was developed by the Ministry of the Interior. Following the adoption of these papers several policy measures have been implemented including increases in alcohol and tobacco excise taxes, restrictions in advertising and sale as well as improved access to alcohol dependency services. <sup>32</sup>
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 these legislation for eHealth in cancer care in your country?	N/A	No further information available.

<sup>31</sup> [Provision of Health-care Service over the Internet – the Legality of E-consultations in Estonia](#) and <https://www.sorainen.com/publications/legal-aspects-of-telemedicine-in-belarus-and-the-baltic-states/#estonia> and [OECD: The future of telemedicine after COVID-19](#)

<sup>32</sup> [Estonia: health system review 2018](#)

## 5 CANCER SPECIFIC EHEALTH SOLUTIONS

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

Area of application/ type of solutions	Login Websites	Apps	Webinars	Multi-disciplinary teleconferences (HCP-HPC)	Teleconsultation (HCP-patient)	Telemonitoring via devices	Other, please specify
<b>Ecosystem</b>	Yes, <a href="#">Patient Portal</a>	-	-	Yes, e.g., <a href="#">e-consultation</a> with oncologists have been available for family doctors since 2013 in cases of suspected cancer <sup>33</sup> ; e-consultation in <a href="#">primary health care</a> (Health Insurance Fund)	Yes, e.g., <a href="#">Certific</a> , a patient communication platform	-	Yes, e.g., participation of The North Estonia Medical Center in research project <a href="#">AIDAVA</a> - all available personal health data of an individual in one consistent semantic model <sup>34</sup> ; <a href="#">ECHAAlliance Ecosystems</a> , partnerships committed to working together to implement innovative solutions that improve the quality of health and wellbeing of citizens, the effectiveness of the healthcare system and the scope for wealth creation and business opportunities; <a href="#">Guardtime Health</a> , a collaborative health ecosystem
<b>Prevention of Cancer</b>	Yes, registration at the national <a href="#">eBooking</a> system ( <a href="#">cervical cancer screening</a> ); <a href="#">Antegenes</a> to calculate a person's risk of developing cancer and	Yes, e.g., <a href="#">Dermtest</a> skin cancer detection to chronic skin disease monitoring	-	-	-	-	Yes, e.g., sending reminders to patients of the possibility to participate in the screening programs by pharmacies <sup>35</sup>

<sup>33</sup> [EU Country Cancer Profile: Estonia 2023](#)

<sup>34</sup> <https://regionaalhaigla.ee/en/new-eu-research-project-launches-automate-curation-and-publishing-personal-health-data-through>

<sup>35</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9301098/>



Area of application/ type of solutions	Login Websites	Apps	Webinars	Multi-disciplinary teleconferences (HCP-HPC)	Teleconsultation (HCP-patient)	Telemonitoring via devices	Other, please specify
	provide medical advice on prevention and early detection by combining the polygenic risk score with a person's background (origin, age, and gender)						
<b>Treatment of Cancer</b>	-	-	-	-	Yes, e.g., <a href="#">OnKontakt</a> e-support for cancer patients; <a href="#">Provision</a> , a global developer of proton therapy treatment locations; <a href="#">The Lung Cancer Patient's Journey Improvement Project</a>	-	Yes, e.g., <a href="#">The digital decision support system (DDSS)</a> ; <a href="#">decision support system of clinical decisions</a> ; <a href="#">DDSS for personalised medicine - Feasibility study</a> ; <a href="#">DrugCard</a> - Pharmacovigilance Software
<b>'Living with cancer'</b>	-	Yes, e.g., <a href="#">Triumfland</a> - The effect of Triumf mobile health game on psychological well-being and health-related quality of life among pediatric cancer patients: <a href="#">A pilot study</a>	-	-	-	-	Yes, e.g., <a href="#">Minudoc</a> - health teleconsultation platform, which aims to provide on-demand quality primary and secondary level healthcare advice
<b>Rehabilitation from Cancer</b>	-	Yes, e.g., <a href="#">Cognuse</a> - software solutions for critical disease management and rehabilitation; <a href="#">CoNurse</a> - can be used by patients' family and caregivers to support care continuum from hospital to home.	-	-	-	-	-
<b>Palliative Cancer Care</b>	-	-	-	-	-	-	-

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

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	<p>No overview information website on recommended solutions. But there is general information on the health system including eHealth by the Estonian Health Insurance Fund.<sup>36</sup></p> <p>The eHealth portal itself allows persons to</p> <ul style="list-style-type: none"> <li>• view own health information,</li> <li>• designate representatives,</li> <li>• present declarations of will,</li> <li>• check when information has been viewed and by whom,</li> <li>• view prescriptions,</li> <li>• notify medical institutions,</li> <li>• set up reminders for appointments with doctors.<sup>37</sup></li> </ul> <p>The Tallin University of Technology has set up an 'Health Applications Evaluator'.<sup>38</sup></p>
Can you give an estimation on how the split between private and public apps are available? Give an estimate percentage of public solutions.	N/A	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?	Yes	<p>The Estonian Health insurance fund has a 'Digital Solutions Guide' in place. This addresses mainly the manufacturers of digital solutions. '<i>The digital solutions guide brings together important information that a digital solution manufacturer should consider in the different development stages of a solution. The guide focuses on three points of contact between the state and a digital solution manufacturer:</i></p> <ul style="list-style-type: none"> <li>• <i>Interoperability, i.e., data exchange between the digital solution and national databases and/or those of healthcare providers.</i></li> <li>• <i>Security and efficiency.</i></li> <li>• <i>Permanent reimbursement by the Health Insurance Fund</i>'.<sup>39</sup></li> </ul> <p>The Tallin University of Technology has set up an 'Health Applications Evaluator' also based on the 'Digital Solutions Guide'.<sup>40</sup></p>
How many Health Care Providers use such solutions? Which sector uses rather which types of solutions?	N/A	No further information available.

<sup>36</sup> [Healthcare in Estonia 2022](#)

<sup>37</sup> [www.digilugu.ee](http://www.digilugu.ee)

<sup>38</sup> [The Health Applications Evaluator](#)

<sup>39</sup> [Digital solutions guide | Estonian Health Insurance Fund \(tervisekassa.ee\)](#)

<sup>40</sup> [The Health Applications Evaluator](#)