

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

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 contacted 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).

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

## 1 DEFINITIONS

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

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>	There is a smooth deviation on the term eHealth defined as <u>professional and business</u> health procedures and processes supported by electronic IT and communication services. It includes IT systems in healthcare institutions, including the exchange of electronic health records (EHR), distribution of health information, private and public, medical research, and Internet services for users of the healthcare system. <sup>2</sup>
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>3</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>4</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>5</sup>	No deviation from definition.
telehealth	The WHO defines telehealth broader than telemedicine « as it includes computer-assisted telecommunications to support	No deviation from definition.

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

<sup>2</sup> [STRATEŠKI PLAN RAZVOJA eZDRAVLJA U REPUBLICI HRVATSKOJ 2014](#)

<sup>3</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/ website>. In *mHealth Assessment: Conceptualization of a Global Framework - PMC (nih.gov)*

<sup>4</sup> [Events - Smart4Health](#)

<sup>5</sup> [Digital health EURO \(who.int\)dcf#](#)

Term	Definition	Deviation
	management, surveillance, literature, and access to medical knowledge. » <sup>6</sup>	
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>7</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 the purpose of providing diagnostic or therapeutic advice through electronic means. » <sup>8</sup>	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 <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 - Croatia

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 Health oversees eHealth in Croatia. <sup>9</sup>
Does the Ministry in charge of health care also have a specific department or unit in charge of eHealth/dHealth?	Yes	Yes, the directorate for eHealth (Uprava za e-zdravstvo) <ul style="list-style-type: none"> <li>• <i>performs tasks related to the improvement of the healthcare system through the systematic, effective application of information and communication technologies aligned with nationally and internationally recognized standards;</i></li> <li>• <i>performs tasks of organisation, planning, coordination, certification, supervision, and control over the implementation of projects, the work of health institutions and health care providers in the field of eHealth;</i></li> <li>• <i>coordinates the construction, functioning, connection, and improvement of the information infrastructure of the</i></li> </ul>

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

<sup>7</sup> [Telemedicine – DigitalHealthEurope](#)

<sup>8</sup> <https://www3.paho.org/ish/images/docs/covid-19-teleconsultations-en.pdf?ua=1>

<sup>9</sup> [Ministarstvo zdravstva Republike Hrvatske - Uprava za e-zdravstvo](#)

Question	Answer	Comments/Experience
		<p><i>Ministry and the health information infrastructure of the Republic of Croatia and the eHealth system in accordance with the law and other regulations that regulate the field of information infrastructure and regulates their mutual relations and relations with other information systems;</i></p> <ul style="list-style-type: none"> <li><i>etc.<sup>10</sup></i></li> </ul>
Is there a national eHealth governance board?	N/A	No further information available.
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, Croatia has a national eHealth agency called the Croatian Institute for Health Insurance (in Croatian: Hrvatski zavod za zdravstveno osiguranje or HZZO) <sup>11</sup> . The HZZO is responsible for managing the national health insurance system in Croatia and has been working to implement eHealth initiatives to improve the quality and efficiency of healthcare services in the country.
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 provided	<p>E-Zdravstveno is an eHealth platform developed by the Croatian Health Insurance Fund (HZZO). The platform offers several functions aimed at improving healthcare delivery and outcomes in Croatia. Some of the key functions of e-Zdravstveno include e-services of HZZO available to citizens:</p> <ul style="list-style-type: none"> <li>Review of the chosen doctor - an e-service that gives the insured (Citizens of the Republic of Croatia) the opportunity to view their chosen primary health care doctors;</li> <li>Application for the issuance of the European Health Insurance Card (EHIC);</li> <li>Realised prescriptions;</li> <li>Open orders (security level: 3) – the e-service is intended for natural persons, insured persons of the Institute, and enables the retrieval of information about the insured person's open e-orders for health procedures in health institutions.</li> </ul> <p>The Ministry of Health, in cooperation with HZZO, enabled and made available to e-Citizens a Health Portal which allows to</p> <ul style="list-style-type: none"> <li>overview of data on all vaccinations and testing for COVID-19,</li> <li>display of selected doctors and messages exchanged with the selected doctor if the option is activated by the doctor,</li> <li>overview of visits to your chosen primary care doctors and ordering and cancelling appointments with primary care doctors, if the practice has opened appointments for ordering and if the option has been activated by your doctor,</li> <li>display of prescribed referrals and review of laboratory findings from laboratories in primary health care, as well as findings and discharge letters from hospitals or specialist consular health care institutions,</li> </ul>

<sup>10</sup> [Uredba o unutarnjem ustrojstvu Ministarstva zdravstva](#) (point 6 article 35) and [Ministarstvo zdravstva Republike Hrvatske - Uprava za e-zdravstvo](#)

<sup>11</sup> [e-Zdravstveno | HZZO](#)

Question	Answer	Comments/Experience
		<ul style="list-style-type: none"> <li>display of data on drugs prescribed by selected doctors in primary health care (PHC) as well as data on drugs taken from pharmacies and the possibility of sending a request to the selected doctor to prescribe prescriptions for therapy for which the doctor has allowed the request for renewal.</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?	N/A	No further information available.
Are there any comprehensive cancer centres focussing on eHealth or telehealth treatments? If yes, which ones and for which specific fields?	N/A	No further information available.

### 3 STRATEGIES/POLICIES

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

Question	Answer	Comments/Experience
Is there a national eHealth strategy?	Yes	<p>eHealth is defined as Priority 1 of the National Health Care Strategy 2012-2020 of Croatia<sup>12</sup>. The Ministry of Health of Croatia asked for support in defining a new, updated version of long-term national eHealth strategy 2021- 2027 and short-term eHealth action plan 2021-22 based on internationally recommended and accepted WHO's National eHealth Strategy Toolkit.<sup>13</sup></p> <p>Several other documents referring to eHealth are or were in place:</p> <ul style="list-style-type: none"> <li>The Strategic Plan for the Development of eHealth in the Republic of Croatia<sup>14</sup></li> <li>The National Health Development Plan for the period 2021 to 2027<sup>15</sup></li> <li>The National Plan for Recovery and Resilience 2021-2026 (recommendation 1, point d)<sup>16</sup></li> <li>The Strategy for the Development of broadband access in the Republic of Croatia (point 1.4.2.3 on eHealth)<sup>17</sup></li> </ul>

<sup>12</sup> WHO eHealth Strategy Toolkit STRATEŠKI PLAN RAZVOJA eZDRAVLJA U REPUBLICI HRVATSKOJ 2014

<sup>13</sup> National eHealth strategy toolkit <https://apps.who.int/iris/handle/10665/75211> [Access: 30.12.2022]

<sup>14</sup> STRATEŠKI PLAN RAZVOJA eZDRAVLJA U REPUBLICI HRVATSKOJ 2014

<sup>15</sup> Nacionalni plan razvoja zdravstva za razdoblje od 2021. do 2027. godine

<sup>16</sup> Nacionalni plan oporavka i otpornosti 2021.-2026

<sup>17</sup> Strategy for the development of broadband access in the Republic of Croatia in the period from 2016 to 2020

Question	Answer	Comments/Experience
		<ul style="list-style-type: none"> <li>The Strategy of digital Croatia for the period up to 2032<sup>18</sup> mentions the WHO strategy<sup>19</sup></li> </ul>
If yes, which stakeholder groups have been included in drafting the national eHealth strategy?	N/A	No further information available.
Are there regional eHealth strategies? If so, can you indicate whether in all regions or only some? Can you provide some (exemplary) documents ?	N/A	No further information available.
If yes, which stakeholder groups have been included in drafting such regional strategy/ies?	Several	Several stakeholders were included in drafting the strategy including the Ministry of Health and Social Welfare of the Republic of Croatia, the Croatian Institute for Health Insurance, and the Croatian National Institute of Public Health.
Are there strategy/ies explicitly referring to / including eHealth cancer care?	Yes	The National Strategic Framework against Cancer until 2030 (in Croatian: NACIONALNI STRATEŠKI OKVIR PROTIV RAKA DO 2030) refers to plans for eHealth cancer care solutions in point 11. <sup>20</sup>
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	Croatia has a national cancer control plan 2020-2030, which was adopted by the Croatian government in 2017. The plan is aimed at improving cancer prevention, diagnosis, treatment, and palliative care in Croatia. <sup>21</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?	N/A	No further information available.
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 <sup>22</sup>	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.

## Further information:

- [Information System Implementation in Healthcare: Case Study of Croatia](#)

<sup>18</sup> [Strategija digitalne Hrvatske za razdoblje do 2032. godine](#)

<sup>19</sup> [Global strategy on digital health 2020-2025](#)

<sup>20</sup> [Nacionalni strateški okvir protiv raka do 2030.](#)

<sup>21</sup> [Nacionalni plan protiv raka 2020. – 2030](#)

<sup>22</sup> [Declaration on eHealth - 10 years later](#)

## 4 LEGISLATION

Table 4 : Overview on eHealth and cancer legislation - Croatia

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	<p>Telehealth (or "Telemedicine"), defined as the provision of healthcare services at a distance (when a healthcare worker and a patient or two healthcare workers are not in the same location) by using information and communication technologies, pursuant to Article 38(1) of Healthcare Act (Official Gazette no. 100/18, 125/19 and hereinafter the "Healthcare Act") and Article 2(1)(I) of Ordinance on conditions, organisation and manner of performing telemedicine in conjunction with Article 257(1)(XXII) of the Healthcare Act (Official Gazette no. 138/2011 , and hereinafter the "Ordinance"), is explicitly recognised and permitted in various Articles of Healthcare Act as well as various Articles of Ordinance.<sup>23</sup></p> <p>Development of Telemedicine is mentioned in the National development strategy of the Republic of Croatia until 2030 (in Croatian: Kvalitetna i dostupna zdravstvena zaštita i zdravstvena skrb).<sup>24</sup></p>
Is there legislation explicitly referring to cancer prevention?	Yes	<p>There is legislation in Croatia that explicitly refers to cancer prevention, the National Strategic Framework against Cancer until 2030 (in Croatian: NACIONALNI STRATEŠKI OKVIR PROTIV RAKA DO 2030)<sup>25</sup>. It explicitly refers to cancer prevention in points 3 and There is a version in English available.<sup>26</sup></p> <p>National prevention programmes are in place for different types of cancer:</p> <ul style="list-style-type: none"> <li>• Lung cancer programme (2020)<sup>27</sup></li> <li>• Breast cancer programme (2006)<sup>28</sup></li> <li>• Colon cancer programme (2007)<sup>29</sup></li> <li>• Cervical cancer programme (2010)<sup>30</sup></li> </ul> <p>There is also a law on restricting the use of tobacco and related products.<sup>31</sup></p>

<sup>23</sup> 138/2011 ([Pravilnik o uvjetima, organizaciji i načinu obavljanja telemedicine](#)) and Health Protection Act (Official Gazette, no. [100/18](#) , [125/19](#) and [147/20](#))

<sup>24</sup> [Nacionalna razvojna strategija Republike Hrvatske do 2030. godine](#)

<sup>25</sup> [Nacionalni strateški okvir protiv raka do 2030](#)

<sup>26</sup> [NPPR\\_ENG\\_final.pdf \(iccp-portal.org\)](#)

<sup>27</sup> [NACIONALNI PROGRAM ZA PROBIR I RANO OTKRIVANJE RAKA PLUĆA 2020. – 2024](#)

<sup>28</sup> [Republika Hrvatska Ministarstvo zdravstva i socijalne skrbi NACIONALNI PROGRAM RANOG OTKRIVANJA RAKA DOJKE](#)

<sup>29</sup> [NACIONALNI PROGRAM RANOG OTKRIVANJA RAKA DEBELOG CRUJEVA](#)

<sup>30</sup> [nacionalni programa ranog otkrivanja raka vrata maternice](#)

<sup>31</sup> [Zakon o ograničavanju uporabe duhanskih i srodnih proizvoda](#)

Question	Answer	Comments/Experience
Is there legislation explicitly referring to / including eHealth cancer care?	No	There is no specific legislation in Croatia that explicitly refers to or includes eHealth cancer care, but the National Strategic Framework against Cancer until 2030 (in Croatian: NACIONALNI STRATEŠKI OKVIR PROTIV RAKA DO 2030) <sup>32</sup> refers to plans for eHealth cancer care solutions in point 11.
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.

## 5 CANCER SPECIFIC EHEALTH SOLUTIONS

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

Area of application/ type of solutions	Login Websites	Apps	Webinars	Multi-disciplinary teleconferences (HCP-HPC)	Teleconsultation (HCP-patient)	Telemonitoring via devices
<b>Ecosystem</b>	Yes, health portal <sup>33</sup> and e-prescription HZZO portal <sup>34</sup>	Yes, health portal <sup>35</sup> and e-prescription HZZO portal <sup>36</sup> and e-gradanin	-	-	-	-
<b>Prevention of Cancer</b>	-	-	-	-	-	-
<b>Treatment of Cancer</b>	-	-	-	-	-	-
<b>'Living with cancer'</b>	-	-	-	-	-	-
<b>Rehabilitation from Cancer</b>	-	-	-	-	-	-
<b>Palliative Cancer Care</b>	-	-	-	-	-	-

<sup>32</sup> [Nacionalni strateški okvir protiv raka do 2030](#)

<sup>33</sup> [Portal zdravlja](#)

<sup>34</sup> [HZZO e- Prescription](#)

<sup>35</sup> [Portal zdravlja](#)

<sup>36</sup> [HZZO e- Prescription](#)



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

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)?	Yes	Only one site recommending own app. <sup>37</sup>
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?	N/A	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.

<sup>37</sup> <https://www.zjz-ck.hr/mobilna-aplikacija-rvm-rak-vrata-maternice/>