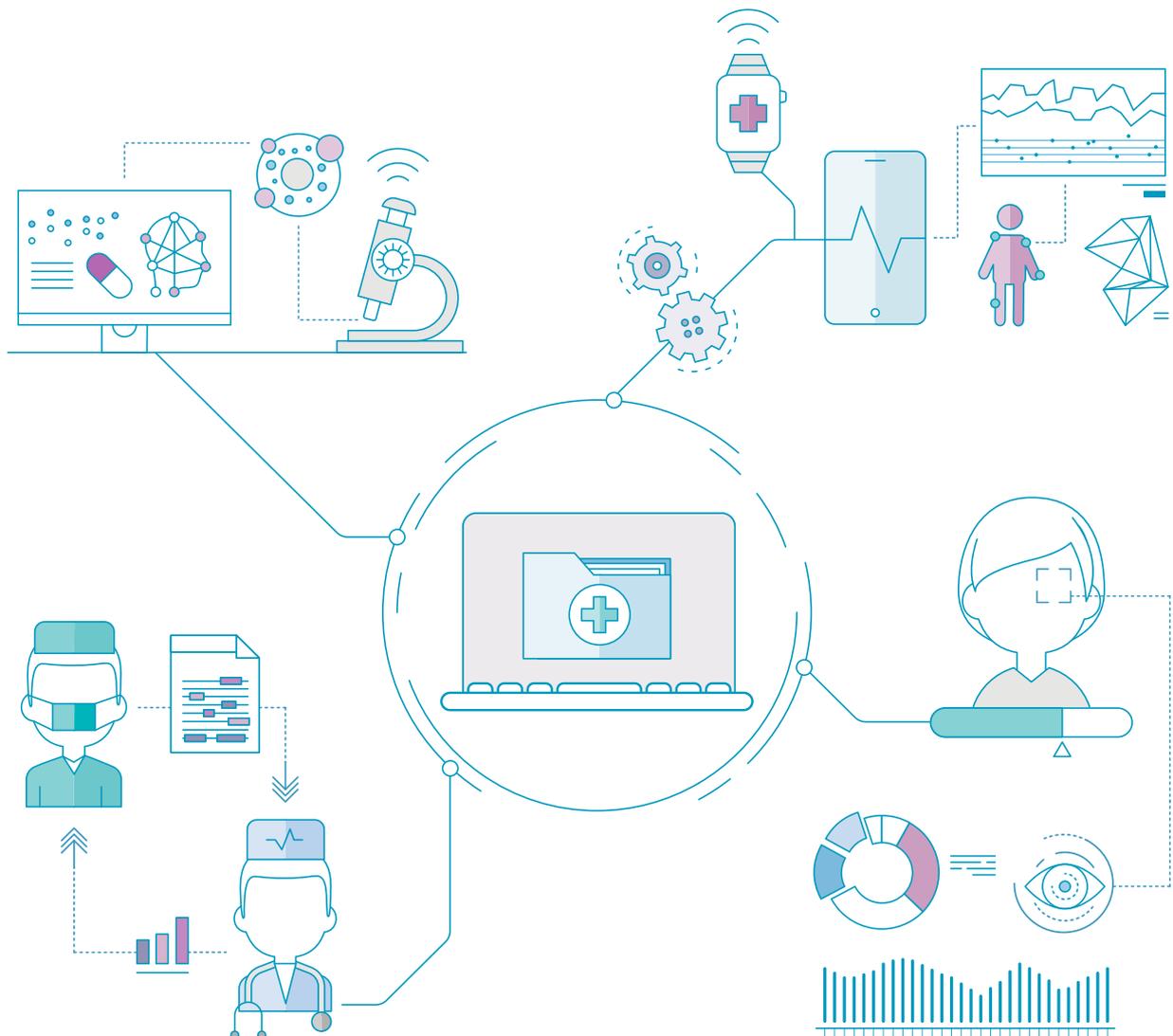# imec

ehealthmonitor 2019

SPECIALISTS

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INTRODUCTION

The eHealthmonitor 2019 is a two-phased mixed-methods study (structured survey and focus group interviews). It was assigned by the federal and regional Belgian governments, and RIZIV/INAMI, and executed by imec and imec-SMIT-VUB in collaboration with WeLL.

The eHealthmonitor 2019 offers insight in the use of and experience with different eHealth services and digital applications in Belgian healthcare. Data was collected via **online questionnaires** (October-December 2019) from **six target groups**: General Practitioners (N=849), Specialists (N=941), Pharmacists (N=692), Nurses (N=1095), Nursing Assistants (N=118) and Citizens (N=5046). **It is important to keep in mind that the data was collected previous to the COVID-19 sanitary crisis.**

This report describes the **survey results** for the group of **specialists**. All other reports, including a more detailed methodological section and the executive summary of all results (in French and Dutch), can be retrieved via **www.ehealthmonitor.be**. Before we present the results a short overview of the followed methodological procedure for all surveys is described.

QUESTIONNAIRE DEVELOPMENT AND DATA COLLECTION

The final questionnaires were iteratively developed with feedback from experts and representatives of the target group, with a focus on current use and experiences with the available eHealth services. This resulted in **6 different questionnaires** with comparable questions where relevant. **All questions focused on the experience of health care professionals and citizens in the past year (October 2018-September 2019) and our results therefore reflect the situation before the COVID19 sanitary crisis.**

We **recruited participants via several approaches**. The cabinet of the federal and regional health ministers and the RIZIV/INAMI communicated through their different channels and sent out a press release that was picked up by specialized press. Also, an invitation to participate was sent to all Belgian health professionals via the eHealthBox. Furthermore, we mobilized the help of many regional and federal health organizations, such as our project partners, unions, professional associations and interest groups to spread the questionnaires to their members. We want to thank them for their efforts. Citizens were reached through commercial panels such as imec.Maakdatmee and Bilendi Belgium.

DATA CLEANING AND ANALYSIS

Partially completed surveys were not systematically removed during **data cleaning**. Only respondents with unusual and/or inconsistent responses were removed by verifying open questions. Thus, the **N for each particular question is provided** under the table/graph, showing lower response rates for some of the items.

The **obtained sample** of each target group of healthcare professionals was **compared to the national statistics of healthcare practitioners 2019**[1] for representativeness by region, age and sex. For the **citizens** the obtained sample was compared to the **statistics of the Belgian population** for representativeness by region, age, sex and education level[2]. For each profession, as well as for the citizens, detailed information of the samples demographics is provided at the start of each report. In addition, disclaimers are added to the reports where the percentages of groups in our sample do not accurately represent the size of this group in society.

The **quantitative data was analyzed** using SPSS Statistics version 26. Due to the sample sizes, very small differences often still reached statistical significance[3]. The findings presented represent the **total sample** and cover the **Belgian trends** and attitudes. However, **when distinctive regional variations** are noticed these are **pointed out**.

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1   Steinberg, P. (2019). Jaarstatistieken met betrekking tot de beoefenaars van gezondheidszorgberoepen in België. Cel Planning van het Aanbod van de Gezondheidszorgberoepen

2   Statbel (Algemene Directie Statistiek – Statistics Belgium). Kerncijfers Belgische bevolking 2019. FOD Economie, KMO, Middenstand en Energie.

3   Lantz, B. (2013). The large sample size fallacy. Scandinavian journal of caring sciences, 27(2), 487-492.

For each target group the **most relevant open-ended questions** with regards to the services (e.g. services with lowest usage, services with highest dissatisfaction) and the feedback question at the end of the survey were analyzed. All selected questions were first coded inductively (open coding) using MAXQDA 2020. When no new information was detected and saturation was reached, these codes were categorized. These categories where then used to complete focused coding of the rest of the data. The **main categories are reported**.

Recruiting exclusively via a digital questionnaire might limit the external validity of the results. The findings provide an **indication** of the trends, barriers and possibilities with regard to eHealth in Belgium for people of the target groups **who are already active online**. Therefore, the results presented in this report are limited to our sample and do not represent all segments of the entire Belgian population.

KEY CONCEPTS AND DEFINITIONS

This section provides an overview of the **key concepts and definitions** that are used throughout the report.

The definition of eHealth by the European Commission was adopted for the eHealthmonitor 2019, namely *"… tools and services that use information and communication technologies (ICTs) to improve prevention, diagnosis, treatment, monitoring and management of health and lifestyle*[1]*"*. This definition is interpreted and applied in a broad sense to avoid a too restrictive scope, which could be unwanted to evaluate and monitor evolution over time.

AI / Artificial intelligence. A system which can, to a certain degree, feel, observe and think like human beings and which can act in a rational way. For example, artificial intelligence is used in self-driving cars or in health care to offer support with decisions regarding medical treatment (e.g. wound care).

Digital applications. The total offer of apps, programs or digital devices that can be used to comply with the care needs of a patient. These can be provided by the public sector or the private sector.

Digital multidisciplinary consult. A digital meeting between healthcare professionals, where participants can see each other via a screen, to have access to the expertise of another healthcare professional to determine a treatment plan, to avoid unnecessary referral or, if necessary, to make a targeted referral.

Government health portal (official national or regional health portal). A secured website/application, provided by the federal or the regional government, that stores and makes personal health data accessible to healthcare professionals involved in the patient's care. For instance, Mijngezondheid/Masanté, MyHealthViewer, CoZo, Vlaams Ziekenhuis Netwerk, Réseau Santé Bruxellois/Brussels Gezondheidsnetwerk and Réseau Santé Wallon.

Private health portal. A secured website/application, provided by a healthcare professional/health care institution (e.g. hospital, doctor's practice, nursing service) or another private partner (e.g. a company), that stores and makes personal health data accessible to healthcare professionals involved in the patient's care.

Teleconsult. A medical consultation held by telecommunication, for example patients asking medical questions via a website or email.

Telemonitoring. A method that allows healthcare professionals to monitor patients remotely. A patient measures a health parameter (e.g. blood pressure, blood sugar level) with a measuring instrument, sensor or another device, possibly stores these parameters digitally and possibly shares them with a healthcare professional. Furthermore, telemonitoring allows healthcare professionals to ask additional questions to the patient in a digital way.

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1   European Commisson. eHealth: digital health and care [Web page] (2019) [cited 22 June 2020]. Available from: https://ec.europa.eu/health/ehealth/overview_en
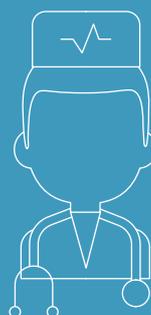
SOCIO-DEMO

SOCIO-DEMO OF OUR SAMPLE

The table below provides an overview of the **socio-demographic characteristics** of the specialists included in our **sample**. The percentages between brackets reflect the percentages in the **Belgian population**[1].

	Belgium	Flanders	Wallonia	Brussels
REGION (N=889)		N=412	N=326	N=151
		46,3% (54,6%)	36,7% (32,2%)	17,0% (13,2%)
AGE (N=904)				
< 25 years	0,3% (0%)	0,5%	0,0%	0,0%
25-34 years	20,4% (9,5%)	17,9%	16,0%	36,4%
35-44 years	20,1% (20,7%)	22,4%	19,3%	16,0%
45-54 years	23,6% (22,6%)	25,2%	24,5%	17,2%
55-64 years	25,6% (21,6%)	26,5%	28,5%	17,2%
65+ years	10,0% (25,6%)	7,5%	11,7%	13,2%
LANGUAGE (N=941)				
Dutch	49,8%	98,1%	1,8%	21,9%
French	50,2%	1,9%	98,2%	78,1%
SEX (N=904)				
Female	41,5% (42,9%)	42,0%	39,9%	43,7%
Male	58,5% (57,1%)	58,0%	60,1%	56,3%
Other	0,0%	0,0%	0,0%	0,0%%
FUNCTION (N=999)				
Specialist in training	11,6% (21%)	10,0%	7,1%	25,8%
Specialist	88,4% (79%)	90,0%	92,9%	74,2%
WORK EXPERIENCE AS SPECIALIST (N=793)				
0-4 years	14,2%	13,7%	12,2%	21,4%
5-9 years	9,7%	10,0%	9,9%	8,0%
10-14 years	12,1%	13,7%	11,6%	8,0%
15-19 years	11,6%	11,9%	11,2%	11,6%
20-24 years	13,6%	14,8%	13,5%	9,8%
25-29 years	17,2%	17,0%	19,1%	12,5%
30-34 years	11,1%	10,5%	10,9%	13,4%
35-39 years	5,5%	5,1%	4,6%	8,9%
40-44 years	2,8%	2,2%	3,6%	2,7%
45-49 years	1,5%	1,1%	2,0%	1,8%
50-54 years	0,8%	0,0%	1,3%	1,8%

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[1]   Steinberg, P. (2019). Jaarstatistieken met betrekking tot de beoefenaars van gezondheidszorgberoepen in België. Cel Planning van het Aanbod van de Gezondheidszorgberoepen.

TYPE OF WORKPLACE (N=884)				
Hospital	63,7%	65,3%	78,2%	27,8%
University hospital	25,1%	19,4%	15,3%	61,6%
Psychiatric hospital	2,1%	2,4%	2,1%	1,3%
Private practice, by myself	20,1%	18,7%	23,3%	17,2%
Private practice, with specialists only	6,4%	5,8%	6,4%	7,9%
Private practice, with other professions	3,0%	2,4%	4,0%%	2,6%
Laboratory	2,0%	1,9%	1,2%%	4,0%
Multidisciplinary medical center	3,8%	4,6%	3,1%	3,3%
Other	5,4%	4,9%%	4,6%	8,6%

Compared to the Belgian population:

- Specialist in **Flanders** are slightly **underrepresented** and specialists in **Wallonia** and Brussels are slightly **overrepresented**.

- Specialists **under the age of 35** are **overrepresented**, whereas specialists **over the age of 65** are **underrepresented**[2]

- **Specialists in training** are underrepresented

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[2]   The percentages in the reference statistics (Steinberg 2019) reflect the number of specialists that are allowed to practice their profession. However, in the eHealthmonitor 2019 we only included specialists who are still actively working as a specialist, which might explain the big difference in the 65+ category.
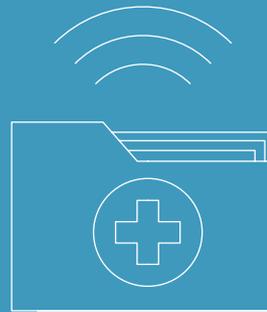
EHEALTH SERVICES

EHEALTH SERVICES

In this part of the report we will focus on how specialists manage the patient file, the use of eHealth services and the general attitude of specialists towards the use of digital applications in their professional life.

1. MANAGING THE PATIENT FILE

The vast majority of specialists in our sample (79,0%) kept the patient file **mostly or only electronically**. Our results showed that a higher percentage of specialists in Flanders (87,1%) keeps the patient file **mostly or only electronically**.

MANAGING PATIENT FILE

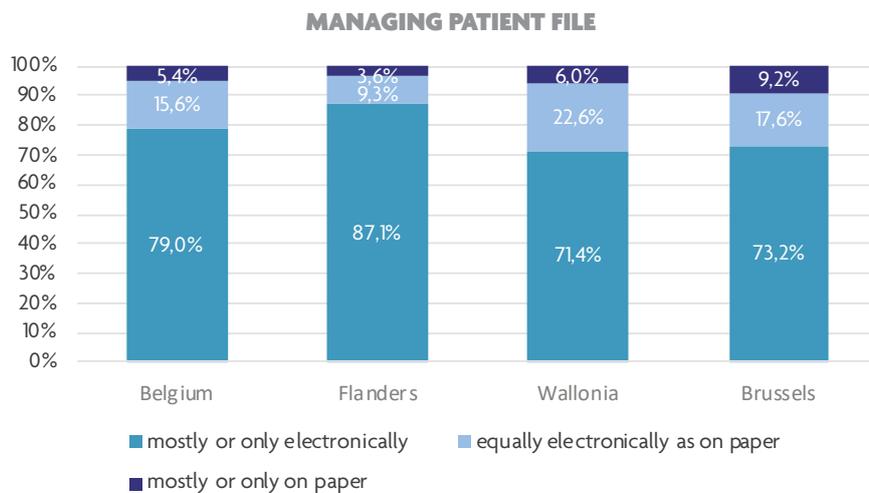|	Belgium	Flanders	Wallonia	Brussels
mostly or only on paper	5,4%	3,6%	6,0%	9,2%
equally electronically as on paper	15,6%	9,3%	22,6%	17,6%
mostly or only electronically	79,0%	87,1%	71,4%	73,2%

■ mostly or only electronically   ■ equally electronically as on paper
■ mostly or only on paper

Graph 1. How do you manage patient files? (N=852)

2. USE OF EHEALTH SERVICES

The use of specific eHealth services, provided by the government, was **not explicitly asked** in the questionnaire of the specialists. However, the answers from the feedback given by the specialists made it possible to distinguish **recurring themes** regarding the **use of eHealth and eHealth services**, which are discussed in the final section 'general qualitative feedback on eHealth'.

3. NEED FOR SUPPORT WITH THE USE OF EHEALTH SERVICES

More than 60% of specialists in our sample indicated the need for additional training and supporting materials for the use of eHealth services:

- 68,6% of specialists would like **additional training** regarding the use of eHealth services

- 66,2% of specialists would like supporting materials for the **use of eHealth services in their daily job**

- 64% of specialists would like supporting materials to better **inform patients** about the use of eHealth services

Our results showed regional differences in the need of support with the use of eHealth services:

▪ A higher percentage of specialists in Brussels (76,1%) and Wallonia (72%) expressed the need for **additional training** regarding the use of **eHealth** services

▪ A slightly lower percentage of specialists in Brussels (62%) expressed the need **for supporting materials** for the **use of eHealth services in their daily job**

▪ A lower percentage of specialists in Brussels (57%) expressed the need for supporting materials to better **inform patients** about the use of eHealth services

SUPPORT WITH THE USE OF EHEALTH SERVICES
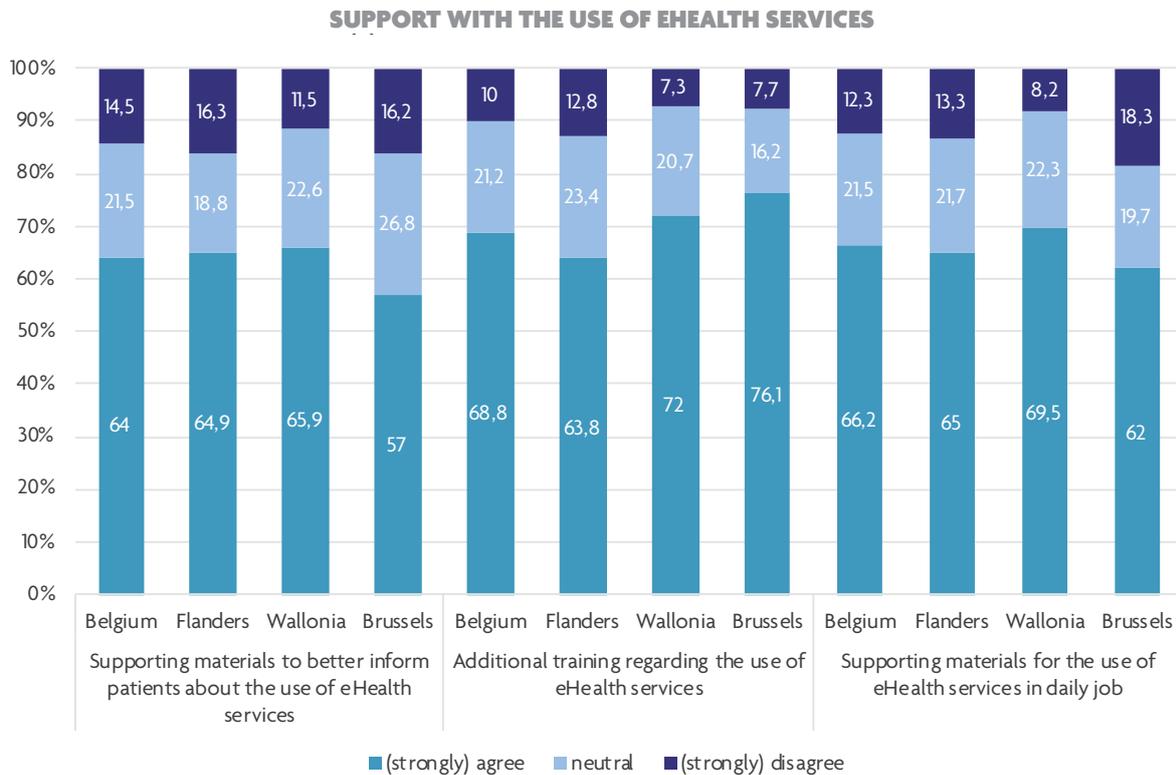
Graph 2. To what extent do you agree or disagree with following statements regarding support in using eHealth services in your professional life? (N=854)

Answers to the above statements were provided on a 5-point Likert-scale from completely disagree (1) to completely agree (5). These three statements formed a reliable scale, with Cronbach's alpha higher than .75 for all healthcare professions. Higher scores therefore indicate a higher need for support with the use of eHealth services. The answers were recategorized into three levels, based on the average score for the three statements:

▪ An average score of 2.4 or lower indicated a **low need for support** with the use of eHealth services

▪ An average score between 2.5 and 3.5 indicated a **medium need for support** with the use of eHealth services

▪ An average score of 3.6 or higher indicated a **high need for support** with the use of eHealth services

Our results showed that the vast majority of specialists in our sample (90,4%) fall into the medium or high need for support category.

NEED FOR SUPPORT	Low need	Medium need	High need
	9,6%	24,2%	66,2%

A. QUALITATIVE FEEDBACK REGARDING THE NEED FOR SUPPORT WITH THE USE OF EHEALTH SERVICES

Specialists expressed the need for **more support** with the use of eHealth services.

> Resp. 228. "Het is gewoon allemaal heel ingewikkeld en er is onvoldoende ondersteuning."

In addition, specialists experienced problems with **reaching the helpdesk** and the **helpdesk not** always **being able to support them**.

> Resp. 149. "Le help-desk de eHealth est peu disponible, souvent inefficace, parfois désagréable…"

> Resp. 210. "Er is geen fatsoenlijke en snel in te schakelen helpdesk. Ondersteuning en duidelijk kunnen vele malen beter!"

4. GENERAL ATTITUDE TOWARDS THE USE OF DIGITAL APPLICATIONS

Specialists were asked for their opinion regarding the use of digital applications in their professional life. The majority of specialists in our sample (70,1%) indicated they **trust** digital applications. 19,4% of specialists indicated to feel a certain degree of **resistance** when it comes to using digital applications.

DIGITAL APPLICATIONS
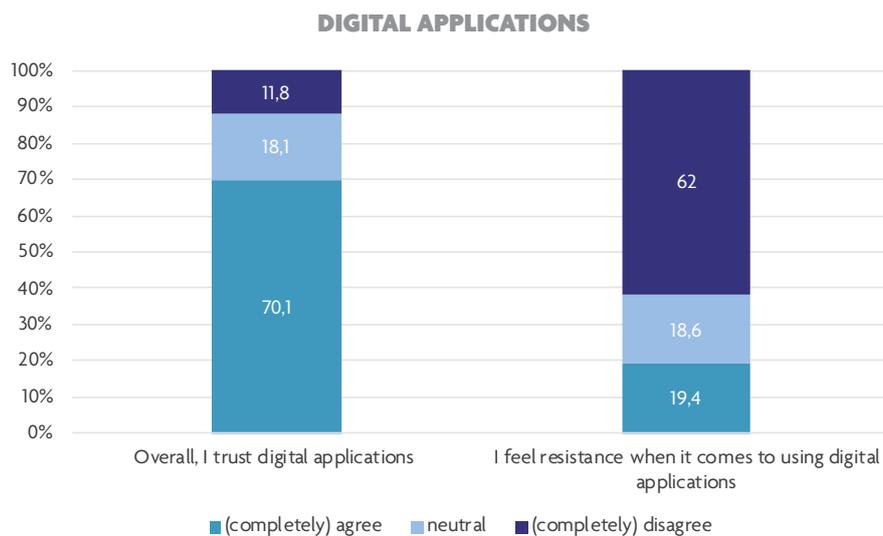
Graph 3. To what extent do you agree or disagree with following statements regarding your use of digital applications in your professional life? (N=824)

Exploration with other variables showed that **trust** in digital applications varied across **age** categories and **the level of support** with the use of eHealth services. **Resistance** towards digital applications only varied across different levels of **need for support** with the use of eHealth services.

		Completely disagree	Disagree	Neutral	Agree	Completely agree
STATEMENT	**AGE**					
I feel resistance when it comes to using digital applications	25-34	28,0%	50,3%	11,8%	9,9%	0,0%
	35-44	24,1%	45,8%	13,3%	15,7%	1,2%
	45-54	21,3%	33,5%	22,8%	19,3%	3,0%
	55-64	20,8%	35,6%	22,2%	15,3%	6,0%
	65 and up	22,0%	24,4%	22,0%	24,4%	7,3%

Table 1. To what extent do you agree or disagree with following statements regarding your use of digital applications in your professional life? *Age category <25 was omitted from analyses as n = 2 (N=824)

STATEMENT	NEED FOR SUPPORT	Completely disagree	Disagree	Neutral	Agree	Completely agree
Overall, I trust digital applications	Low need	3,9%	3,9%	10,4%	61,0%	20,8%
	Medium need	1,5%	8,7%	14,8%	60,2%	14,8%
	High need	1,3%	11,6%	20,3%	52,6%	14,2%
I feel resistance when it comes to using digital applications	Low need	32,5%	36,4%	11,7%	14,3%	5,2%
	Medium need	23,5%	44,9%	15,8%	12,2%	3,6%
	High need	21,6%	37,2%	20,5%	17,8%	2,9%

Table 2. To what extent do you agree or disagree with following statements regarding your use of digital applications in your professional life? (N = 824)

42% of specialists in our sample found the use of digital tools in decision making, that use **AI** to make suggestions **desirable**. 30,8% was **neutral** and 18% felt it was **undesirable**.
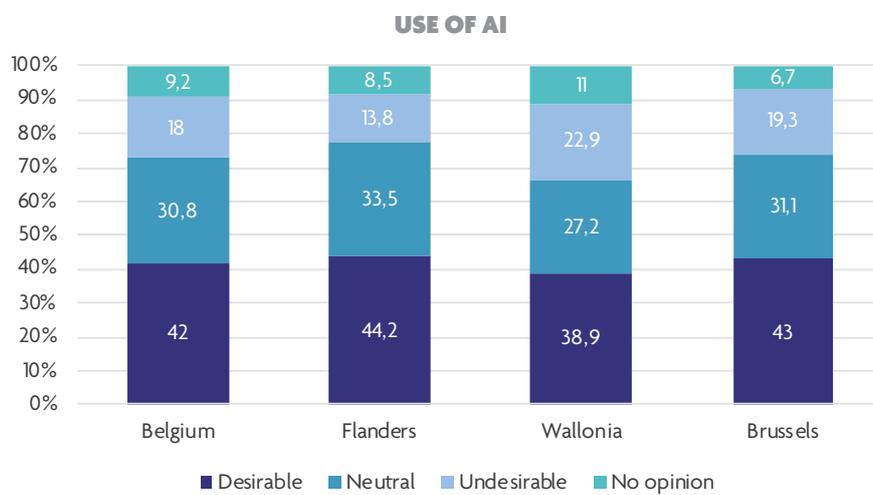
Graph 4. What is your opinion on using digital tools in decision making that use AI to make suggestions (e.g. referring a patient, selecting the best medication)? (N=821)

A further exploration of these results revealed **gender differences** in the **attitude towards AI**.

AI	Desirable	Neutral	Undesirable	I have no opinion on this matter
SEX				
Male	47,8%	28,6%	15,9%	7,7%
Female	33,7%	34,0%	21,0%	11,2%

Table 3. What is your opinion on using digital tools in decision making that use AI to make suggestions (e.g. referring a patient, selecting the best medication)? (N=821)

5. KEY FINDINGS

MANAGING PATIENT FILES

79,0% of specialists in our sample kept the patient file **mostly or only electronically**.

NEED FOR SUPPORT WITH THE USE OF EHEALTH SERVICES:

More than 60% of specialist in our sample indicated the need for additional training and supporting materials for the use of eHealth services:

- **Additional training** regarding the use of eHealth services (68,8%)

- Supporting materials for the **use of eHealth services in their daily job** (66,2%)

- Supporting materials to better **inform patients** about the use of eHealth services (64%)

GENERAL ATTITUDE TOWARDS THE USE OF DIGITAL APPLICATIONS

- The majority of specialists (70,1%) **trust** digital applications

- 19,4% of specialists feel **resistance** when it comes to using digital applications

- 42% of specialists find the use of digital tools in decision making, that use **AI** to make suggestions, **desirable**

EXCHANGE OF HEALTH DATA AMONGST HEALTHCARE PROFESSIONALS
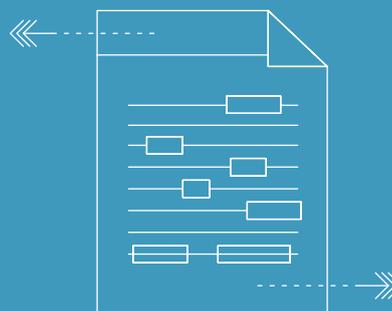
EXCHANGE OF HEALTH DATA AMONGST HEALTHCARE PROFESSIONALS

In this part of the report we will focus on the **communication channels** specialists use to **exchange health data** with other healthcare professionals and/or healthcare institutions and their **satisfaction with the offer of digital communication channels** that are available for their profession.

1. COMMUNICATION CHANNELS USED TO EXCHANGE HEALTH DATA

In general, specialists in our sample mostly exchanged health data with other healthcare professionals via **written communication (paper)** (68,0%), by **phone** (61,7%) and via a **government health portal or HUB** (50,6%).

Our results showed some regional differences in the use of certain communication channels to exchange health data:

- A lower percentage of specialists in Flanders (59,6%) used **written communication (paper)**

- A higher percentage of specialists in Flanders (57,4%) used a **government health portal or HUB**

- A higher percentage of specialists in Flanders (37,8%) used the **eHealthbox**

COMMUNICATION CHANNELS USED TO EXCHANGE HEALTH DATA
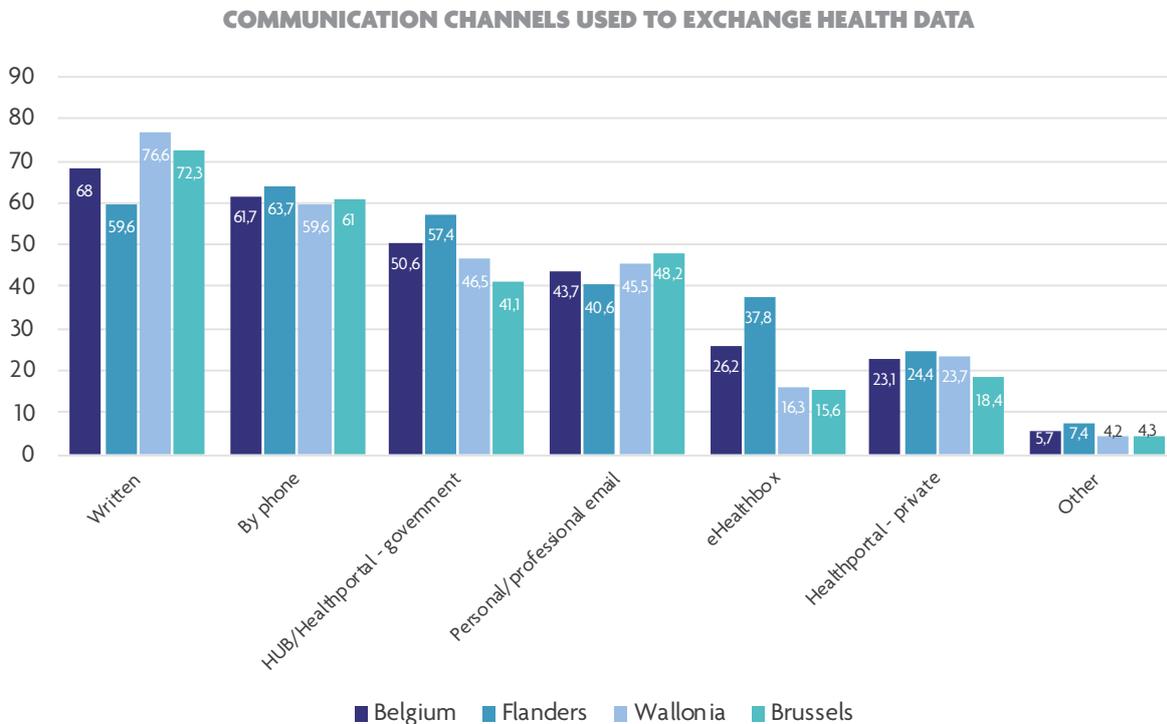
Graph 5. How do you exchange health data with other health care professionals/health care institutions? (Multiple choices possible) (N=847)

2. SATISFACTION WITH DIGITAL COMMUNICATION CHANNELS

Only one in five specialists in our sample (21,4%) were **(very) satisfied** with the offer of digital communication channels that are available for their profession. Our results showed that a lower percentage of specialists in Brussels (13,2%) were (very) satisfied with the offer of digital communication channels.

SATISFACTION WITH DIGITAL COMMUNICATION CHANNELS

	Belgium	Flanders	Wallonia	Brussels
(very) satisfied	21,4	24,8	20,7	13,2
Neutral	40,1	37,6	42,7	41,2
(very) dissatisfied	38,5	37,7	36,6	45,6

■ (very) dissatisfied　■ Neutral　■ (very) satisfied
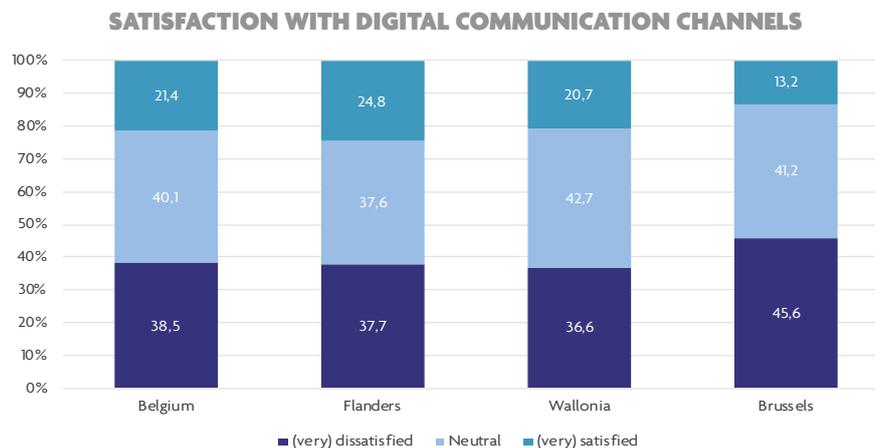
Graph 6. How satisfied are you with the offer of digital communication channels that are available for your profession? (N=833)

3. REQUESTING ACTIVITIES FROM OTHER HEALTHCARE PROFESSIONALS

In general, specialists in our sample mostly used **written communication (paper)** for a number of specific actions and requests.

	Phone	Written	Digitally (software package)	Digitally (other)	The patient contacts them	Other
ACTIVITY						
Requesting laboratory tests	N/A*	73.6%	27.7%	6.0%	7.2%	4.5%
Assigning a task to other healthcare provider	N/A*	83.1%	22.2%	3.8%	16.4%	5.8%
Referring to specialist	53.2%	70.7%	26.8%	8.1%	30.6%	3.2%
Requesting medical imaging	N/A*	77.2%	27.3%	5.8%	13.1%	6.2%

Table 4. How do you execute each of these activities? (Multiple choices possible) (N=833)*For these requests, communication by phone is not authorized. Therefore, this option was not provided in the questionnaire of the eHealthmonitor 2019.

4. KEY FINDINGS

COMMUNICATION CHANNELS USED TO EXCHANGE HEALTH DATA

The 3 most used mediums to exchange health data with other health care professionals are:

- Written communication (paper) (68,0%)

- Phone (61,7%)

- Government provided health portals/HUBs (50,6%)

SATISFACTION WITH DIGITAL COMMUNICATION CHANNELS

Only one in five specialists in our sample (21,4%) were **(very) satisfied** with the offer of digital communication channels that are available for their profession.

REQUESTING ACTIVITIES FROM OTHER HEALTHCARE PROFESSIONALS

Written communication (paper) is the most used medium for a number of specific actions:

- Assigning a task to another health care professional (83,1%)

- Requesting medical imaging (77,2%)

- Requesting laboratory tests (73,6%)

- Referral to another specialist (70,7%)

ONLINE COMMUNICATION WITH PATIENTS

ONLINE COMMUNICATION WITH PATIENTS

In this part of the report we will focus on different forms of online communication between specialists and patients. First, we will discuss the results regarding **online consultation** and the use of **health portals**. Secondly, we will provide an insight on the attitude of specialists towards **online communication** with patients (e.g. making appointments online, requesting repeat prescriptions online, asking questions online).

1. ONLINE CONSULTATION

Patients can use a health portal to consult the personal health data that is available for online consultation. The vast majority of specialists in our sample (82,5%) were **aware** that patients can view their personal health data online via a health portal. Our results showed that a higher percentage of specialists in Flanders (93,2%) were aware of online consultation via a health portal.

% OF SPECIALISTS THAT ARE AWARE OF ONLINE CONSULTATION VIA HEALTH PORTAL
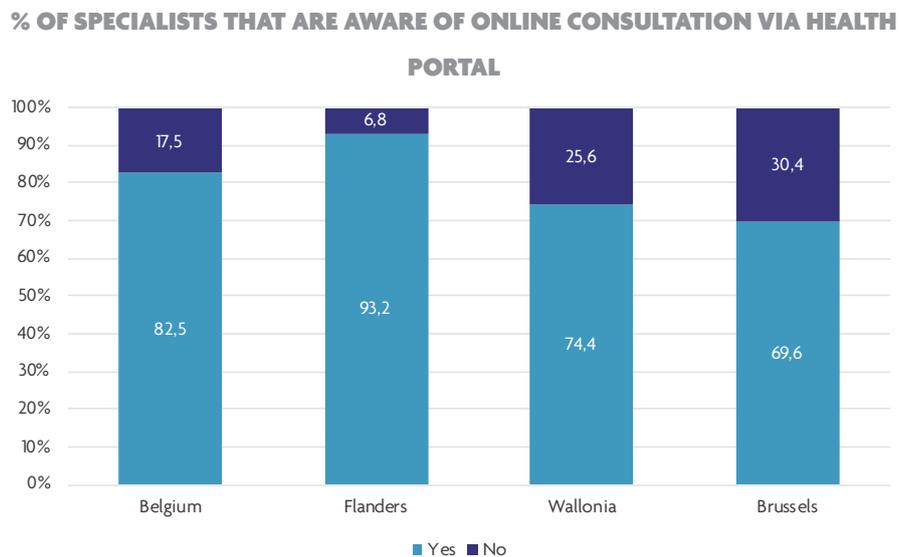
Graph 7. Did you know, before answering this questionnaire, that patients can view their personal health data through a health portal? (N=821)

44,7% of specialists **recommended** one or more of their patients to use a health portal to consult their personal health data: 36,8% of recommended the use of an **official national or regional health portal** and 7,9% recommended the use of a **private health portal**. Recommendation rates were the highest in Flanders (49,5%) and Wallonia (46,4%).

RECOMMEND USE OF HEALTH PORTAL
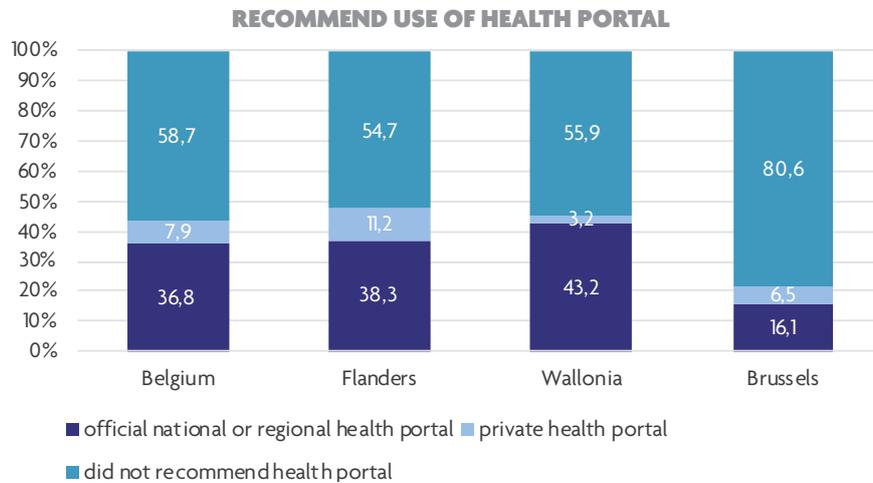
Graph 8. In the past year, did you recommend to one or more of your patients to consult their health data online? (Multiple choices possible) (N=673)

Just over one in three specialists (34,8%) had one or more patients asking them to consult their personal health data through a health portal. Our results showed that a higher percentage of specialists in Flanders (46,6%) had one or more patients requesting them to consult their personal health data through a health portal.

REQUEST FOR ONLINE CONSULTATION VIA HEALTH PORTAL
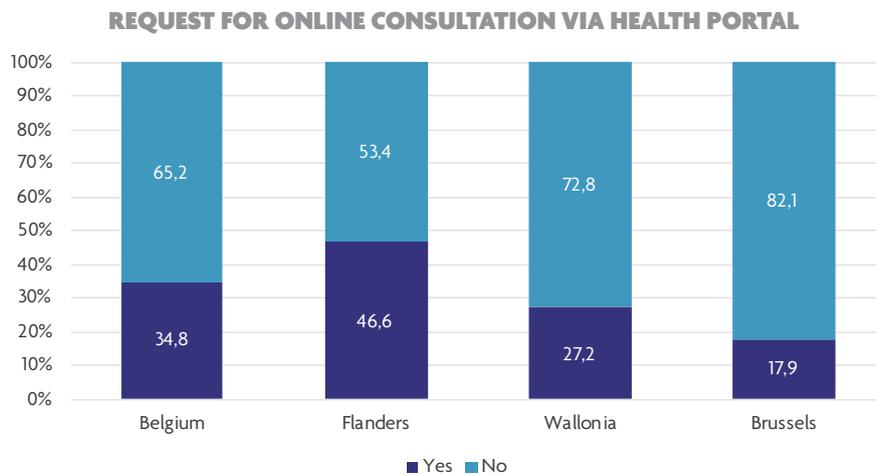
Graph 9. In the past year, has one or more of your patients asked you to consult their personal health data through a health portal? (N=821))

Exploration with other variables revealed **age differences** for requests from patients to consult their personal health data through a health portal, as well as **awareness** of this option.

STATEMENT	AGE	Yes	No
In the past year, has one or more of your patients asked you to consult their personal health data through a health portal?	25-34	28,7%	71,3%
	35-44	43,2%	56,8%
	45-54	35,4%	64,6%
	55-64	37,2%	62,8%
	65 +	20,7%	79,3%
Did you know, before answering this questionnaire, that patients can view their personal health data through a health portal?	25-34	70,8%	29,2%
	35-44	83,5%	16,5%
	45-54	86,3%	13,7%
	55-64	85,6%	14,4%
	65 +	85,4%	14,6%

Table 5. In the past year (October 2018 - September 2019), has one or more of your patients asked you to consult their personal health data through a health portal? (N=814) Did you know, before answering this questionnaire, that patients can view their personal health data through a health portal? *Age category <25 was omitted from analyses as n = 2 (N=819)

73,3% of specialists in our sample find it **(mostly) desirable** that patients have online access to their personal health data through a health portal. 14,4% find it (mostly) undesirable and 12,1% is neutral. Our results showed that a higher percentage of specialists in Wallonia (20,5%) find it (mostly) undesirable that patients can consult their personal health data online via a health portal.
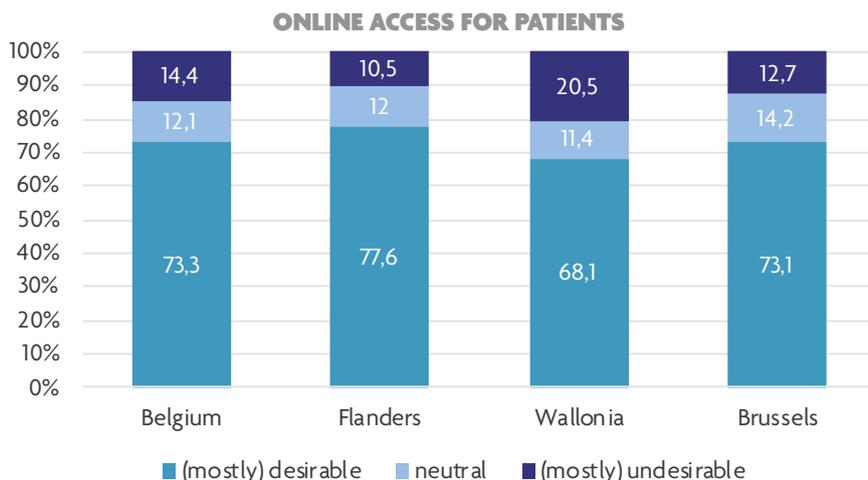
Graph 10. What is your opinion on patients consulting their personal health data, kept by a health care professional, online through a health portal? (N=815)

Exploration with other variables revealed **gender** and **age** differences in the **attitude towards online consultation**.

	Desirable	Mostly desirable	Neutral	Mostly undesirable	Undesirable
AGE					
25-34	18,1%	65,0%	6,3%	8,8%	1,9%
35-44	24,7%	52,5%	13,0%	9,9%	0,0%
45-54	23,1%	50,8%	13,8%	11,3%	1,0%
55-64	19,2%	52,3%	11,2%	14,5%	2,8%
65 +	15,9%	34,1%	20,7%	24,4%	4,9%

Table 6. What is your opinion on patients consulting their personal health data, kept by a healthcare professional, online through a health portal? *Age category <25 was omitted from analyses as n = 2 (N=815)

	Desirable	Mostly desirable	Neutral	Mostly undesirable	Undesirable
SEX					
Male	24,4%	47,2%	13,2%	12,5%	2,7%
Female	15,5%	60,4%	10,7%	12,8%	0,6%

Table 7. What is your opinion on patients consulting their personal health data, kept by a healthcare professional, online through a health portal? (N=815)

2. RESPONSIBILITIES HEALTH PORTAL AWARENESS

Specialists were asked to indicate who they found mainly responsible for a number of tasks regarding the use and awareness of health portals.

Our results showed that specialists believe the **government** is the main responsible party to:

- **Inform** patients of the **existence** of a health portal with their personal health data
- **Explain** patients how to **consult** their personal health data through this health portal
- **Ensure** that patient **use** this health portal to consult their personal health data

Specialist consider **themselves** as the main responsible party to ensure that patients **understand the health-related information** that is available on this health portal.

	Me	The patient	The government	The public health insurance company	Other
TASK					
Informing patients about the existence of a health portal with their personal health data	30.7%	7.3%	81.3%	39.5%	7.5%
Informing patients how they can consult their personal health data on this health portal	13.7%	6.8%	80.6%	43.8%	11.5%
Ensuring that patients understand the health-related information on this health portal	58.7%	10.0%	38.1%	22.9%	16.2%
Ensuring that patients use this health portal to consult their personal health data	24.7%	27.6%	57.2%	30.6%	14.4%

Table 8. According to you, who is mainly responsible for the following tasks? (Multiple choices possible) (N=811)

Our results showed regional differences for each of the four items:

- **Informing patients about the existence of a health portal with their personal health data.** A higher percentage of specialists in Brussels (47,8%) chose the public health insurance company as the main responsible party.

INFORMING PATIENTS ABOUT THE EXISTANCE OF A HEALTH PORTAL
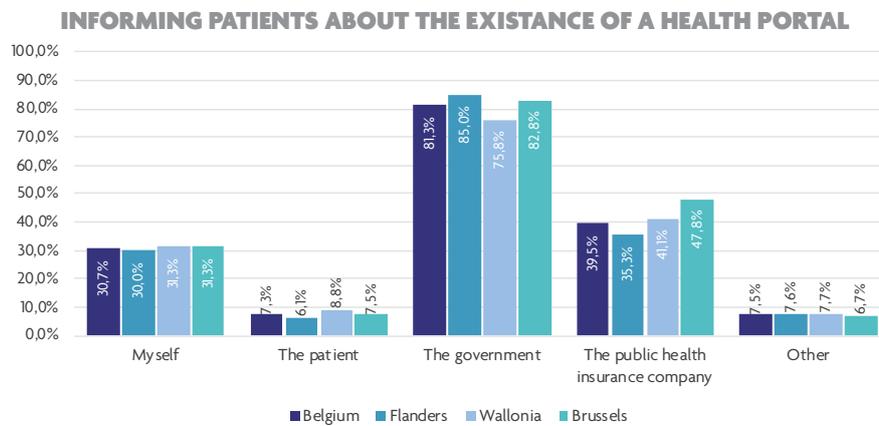
Graph 11. According to you, who is mainly responsible for informing patients about the existence of a health portal with their personal health data? (Multiple choices possible) (N=811)

- **Explaining patients how they can consult their personal health data on this health portal.** A higher percentage of specialists in Brussels (53,7%) selected the public health insurance company as the main responsible party.

EXPLAINING PATIENTS HOW THEY CAN CONSULT THEIR PERSONAL HEALTH DATA ON THIS HEALTH PORTAL
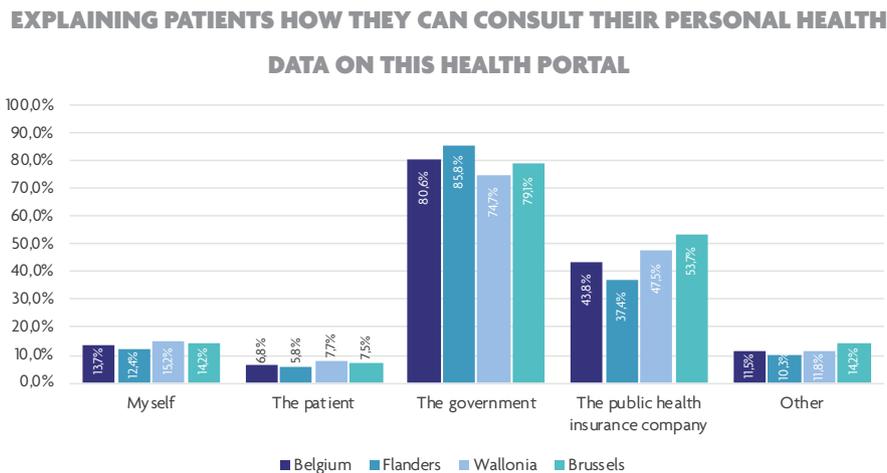
Graph 12. According to you, who is mainly responsible to explain patients how they can consult their personal health data on this health portal? (Multiple choices possible) (N=811)

▪ **Ensuring that patients understand the health-related information on this health portal.** Specialists in Flanders selected the government (44,7%) more often as the main responsible party and themselves less frequently (50,0%).

ENSURING THAT PATIENTS UNDERSTAND THE HEALTH-RELATED INFORMATION ON THIS HEALTH PORTAL
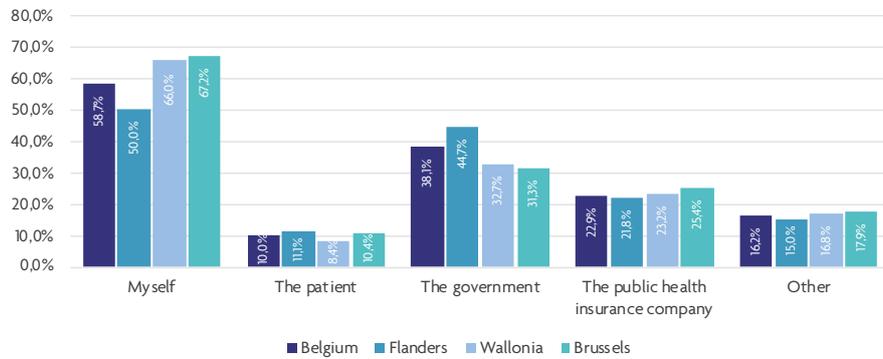
Graph 13. According to you, who is mainly responsible for ensuring that patients understand the health-related information on this health portal? (Multiple choices possible) (N=811)

▪ **Ensuring that patients use this health portal to consult their personal health data.** The government is more frequently selected to be the main responsible party by specialists in Flanders (66,6%). In Brussels, specialists chose the public health insurance company more frequently (38,1%).

ENSURING THAT PATIENTS USE THIS HEALTH PORTAL
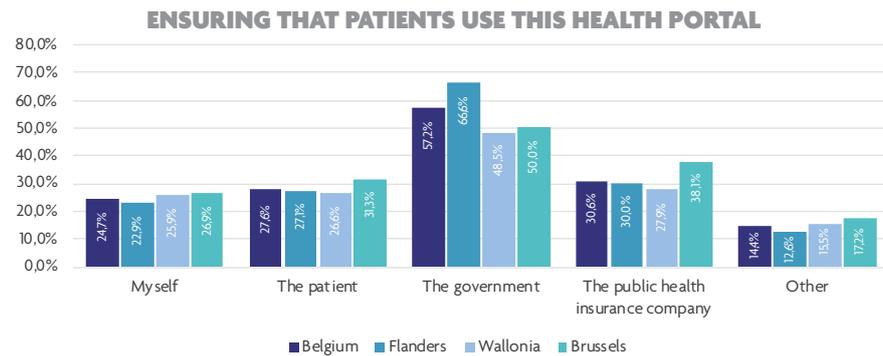
Graph 14. According to you, who is mainly responsible for ensuring that patients use this health portal to consult their personal health data? (Multiple choices possible) (N=811)

Exploration with other variables revealed that **need for support** with the use of eHealth services and **age** have an impact on **perceived responsibilities**.

TASK	NEED FOR SUPPORT	Me	The patient	The government	The public health insurance company	Other
Informing patients about the existence of a health portal with their personal health data	Low need	30,3%	7,9%	67,1%	27,6%	11,8%
	Medium need	30,2%	7,3%	82,3%	40,1%	9,9%
	High need	30,9%	7,2%	82,9%	40,9%	6,1%
Explaining patients how they can consult their personal health data on this health portal	Low need	17,1%	7,9%	73,7%	26,3%	15,8%
	Medium need	16,1%	6,8%	78,1%	41,1%	15,1%
	High need	12,3%	6,6%	82,5%	47,1%	9,6%
Ensuring that patients understand the health-related information on this health portal	Low need	52,6%	13,2%	31,6%	10,5%	18,4%
	Medium need	60,9%	10,9%	33,3%	21,9%	20,3%
	High need	58,7%	9,2%	40,7%	25,0%	14,4%
Ensuring that patients use this health portal to consult their personal health data	Low need	18,4%	28,9%	50,0%	17,1%	17,1%
	Medium need	23,4%	28,6%	54,2%	26,6%	17,2%
	High need	26,0%	27,1%	59,3%	33,9%	13,1%

Table 9. According to you, who is mainly responsible for the following tasks? (Multiple choices possible) (N=811)

TASK	AGE	Me	The patient	The government	The public health insurance company	Other
Informing people about the existence of a health portal with their personal health data	25-34	33,3%	9,4%	87,4%	57,9%	10,7%
	35-44	28,0%	6,2%	85,7%	41,0%	3,7%
	45-54	28,9%	6,7%	84,0%	38,7%	8,2%
	55-64	29,4%	8,4%	79,0%	32,2%	6,5%
	65 +	38,3%	3,7%	60,5%	22,2%	8,6%
Explaining patients how they can consult their personal health data on this health portal	25-34	12,6%	7,5%	85,5%	63,5%	15,7%
	35-44	11,8%	6,2%	85,1%	46,0%	8,7%
	45-54	9,8%	6,7%	83,0%	42,3%	10,8%
	55-64	15,0%	7,9%	79,4%	34,6%	12,1%
	65 +	24,7%	3,7%	60,5%	28,4%	7,4%
Ensuring that patients understand the health-related information on this health portal	25-34	67,9%	11,3%	35,8%	28,9%	17,0%
	35-44	59,0%	9,3%	34,8%	20,5%	17,4%
	45-54	56,2%	11,3%	40,2%	28,9%	18,0%
	55-64	52,8%	10,7%	43,0%	20,6%	14,5%
	65 +	61,7%	3,7%	32,1%	8,6%	11,1%
Ensuring that patients use this health portal to consult their personal health data	25-34	25,8%	34,0%	59,1%	42,8%	16,4%
	35-44	19,3%	27,3%	62,7%	31,1%	9,9%
	45-54	25,8%	23,2%	60,3%	31,4%	15,5%
	55-64	26,2%	29,4%	55,6%	28,0%	16,4%
	65 +	27,2%	19,8%	40,7%	11,1%	12,3%

Table 10. According to you, who is mainly responsible for the following tasks? (Multiple choices possible) *Age category <25 was omitted from analyses as n = 2. N = 809

# 3. ATTITUDES TOWARDS ONLINE COMMUNICATION WITH PATIENTS

Specialists were asked their opinion on a number of statements regarding **online communication** with patients. Our results showed some **potential concerns** regarding online communication with patients:

▪ Almost three out of four specialists in our sample (74,8%) believe that **medical accountability** with online communication is unclear

▪ The majority of specialists (68,3%) think that online communication is going to result in a **lot of unwanted communication**

▪ Over half of the specialists (50,9%) believe that online communication **does not suit the majority of their patients**

▪ Less than one in three specialists (31,9%) **trust** online communication with patients

▪ One in three specialists (33,8%) do not think that online communication with patients is **safe**

ONLINE COMMUNICATION WITH PATIENTS
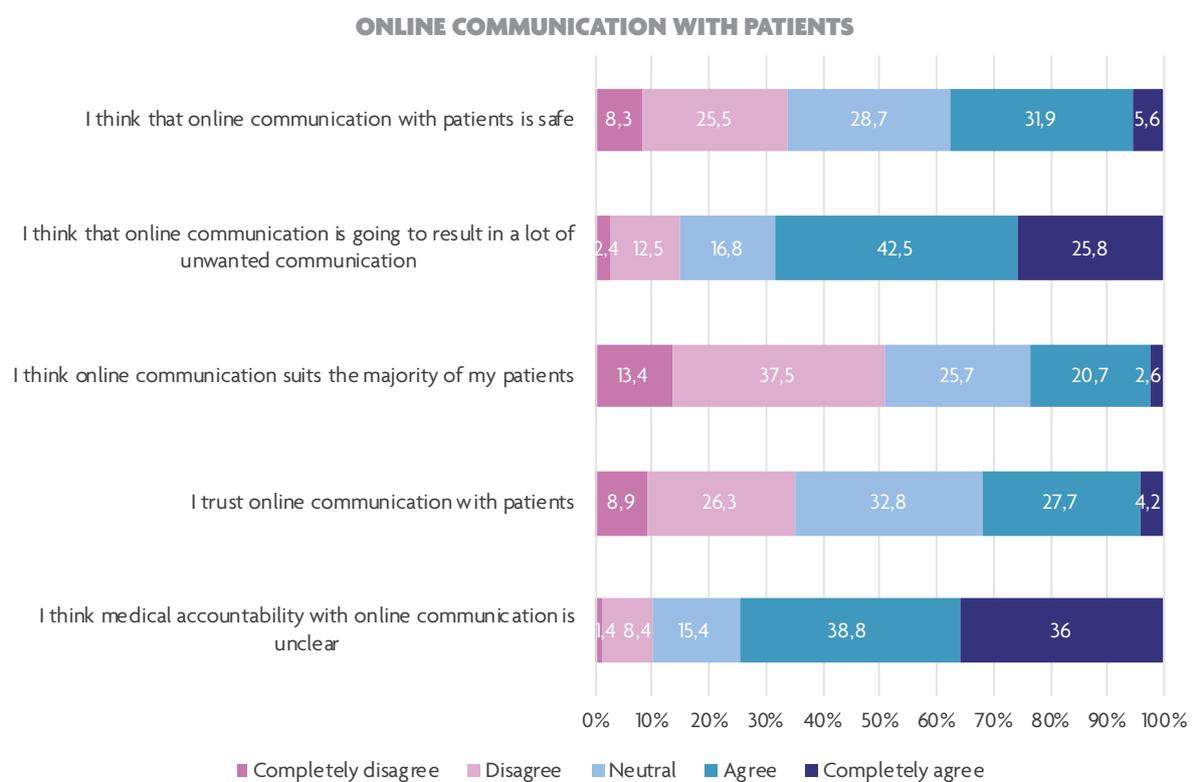
Graph 15. To what extent do you agree or disagree with following statements regarding online communication with patients (e.g. making appointments online, requesting repeat prescription online and asking questions online)? (N=805)

Our results showed that a higher percentage of specialists in Brussels (56,0%) and Wallonia (59,9%) believe that online communication does not suit the majority of their patients.

I THINK ONLINE COMMUNICATION SUITS THE MAJORITY OF MY PATIENTS
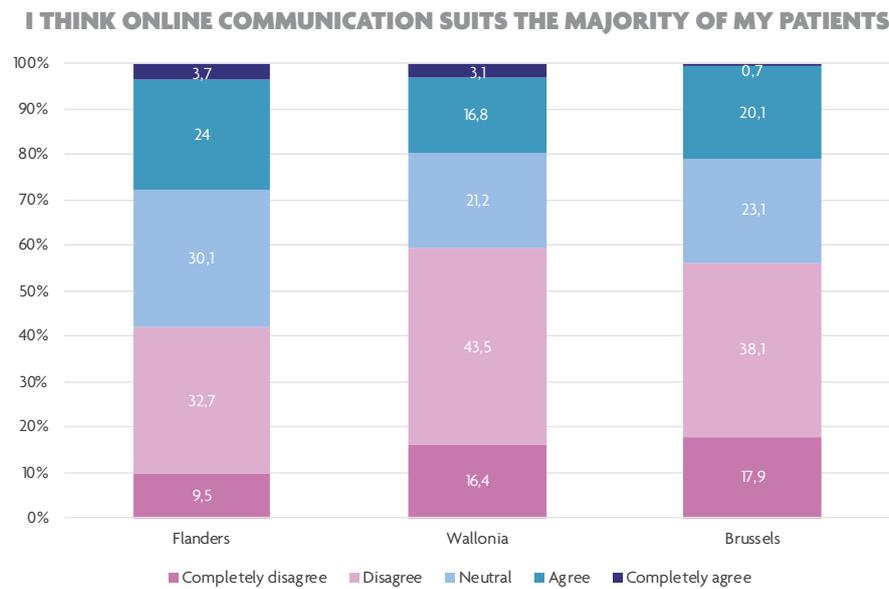
Graph 16. To what extent do you agree or disagree with following statements regarding online communication with patients (e.g. making appointments online, requesting repeat prescription online and asking questions online)? (N=805)

Exploration with other variables revealed that the perception whether or not **online communication suits the majority of their patients** varied across age categories.

	Completely disagree	Disagree	Neutral	Agree	Completely agree
AGE					
25-34	12,7%	43,0%	21,5%	20,9%	1,9%
35-44	9,3%	33,5%	21,7%	32,9%	2,5%
45-54	11,9%	32,6%	31,6%	20,7%	3,1%
55-64	17,5%	40,6%	24,5%	14,6%	2,8%
65 +	16,5%	38,0%	31,6%	11,4%	2,5%

Table 11. To what extent do you agree or disagree with following statement: I think online communication suits the majority of my patients? *Age category <25 was omitted from analyses as n = 2. (N=803)

4. KEY FINDINGS

ONLINE CONSULTATION

82,5% of specialists in our sample were **aware** that patients can view their personal health data via a health portal.

- 44,7% of specialists **recommended** one or more of their patients to use a health portal to consult their personal health data

- 34,8% of specialists had one or more patients **asking** them to consult their health data through a health portal

- 73,3% of specialists find it **(mostly) desirable** that patients can consult their personal health data online via a health portal

RESPONSIBILITIES HEALTH PORTAL AWARENESS

Specialists believe the **government** is the main responsible party to:

- **Inform** patients of the **existence** of a health portal with their personal health data

- **Explain** patients how to **consult** their personal health data through this health portal

- **Ensure** that patient **use** this health portal to consult their personal health data

Specialist consider **themselves** as the main responsible party to ensure that patients **understand** the health-related information that is available on this health portal.
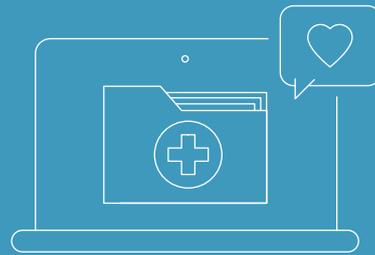
ATTITUDE TOWARDS ONLINE COMMUNICATION WITH PATIENTS

Potential **concerns** regarding online communication with patients:

- Almost three out of four specialists in our sample (74,8%) believe that **medical accountability** with online communication is unclear

- The majority of specialists (68,3%) think that online communication is going to result in **a lot of unwanted communication**

- Over half of the specialists (50,9%) believe that online communication **does not suit the majority of their patients**

- Less than one in three specialists (31,9%) **trust** online communication with patients

- One in three specialists (33,8%) do not think that online communication with patients is **safe**

# SELF MANAGEMENT AND ONLINE TREATMENT

SELF MANAGEMENT AND ONLINE TREATMENT

In this part of the report we will focus on the use of **digital applications for health purposes**, the use of **digital multidisciplinary consults** and the attitude of specialists towards the future use of **teleconsults** and **telemonitoring**.

1. USE OF DIGITAL APPLICATIONS FOR HEALTH PURPOSES

A small percentage of specialists in our sample recommended the use of digital applications for health purposes. The use of a **health-related app for smartphone or tablet** (27,3%) and **online tracking of self-measured health data** (22,1%) were recommended more frequently than the use of a **wearable** (10,8%).

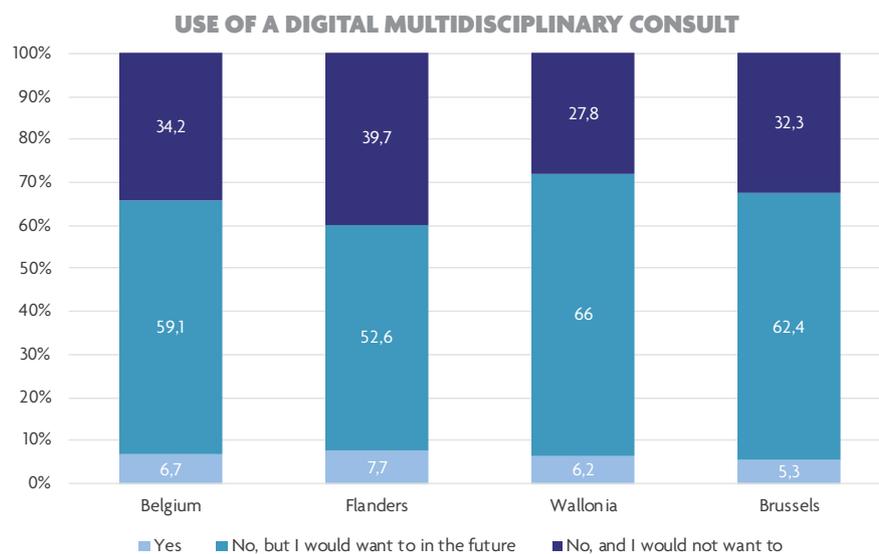**% OF SPECIALISTS RECOMMENDING DIGITAL APPLICATIONS**
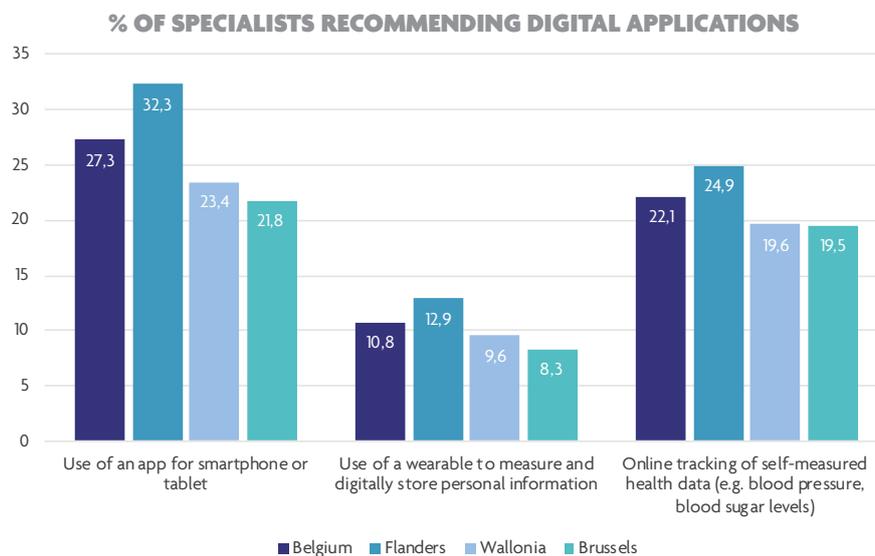
Graph 17. In the past year (October 2018 - September 2019), have you recommended your patients to use the following options regarding their health? (N=802)

Our results showed that a higher percentage of specialists in Flanders (32,3%) recommended the use of a health-related app for smartphone or tablet.

2. USE OF A DIGITAL MULTIDISCIPLINARY CONSULT

Specialists were asked whether they had participated in **a digital multidisciplinary consult** in the past year (October 2018 – September 2019). Our results showed that the majority of specialists in our sample (62,4%) have **not participated** in a digital **multidisciplinary consult but would like to use this possibility in the future**. A higher percentage of specialists in Wallonia (66%) and Brussels (62,4%) would like to use a digital multidisciplinary consult in the future.

USE OF A DIGITAL MULTIDISCIPLINARY CONSULT

	Belgium	Flanders	Wallonia	Brussels
No, and I would not want to	34,2	39,7	27,8	32,3
No, but I would want to in the future	59,1	52,6	66	62,4
Yes	6,7	7,7	6,2	5,3

■ Yes   ■ No, but I would want to in the future   ■ No, and I would not want to

Graph 18. In the past year (October 2018 - September 2019), have you participated in a digital multidisciplinary consult? (N=802)

Exploration with other variables revealed that the **willingness to use a digital multidisciplinary consult** in the future varied across the **need for support** with the use of eHealth services.

	No, and I would not like to either	No, but I would like to in the future	Yes
NEED FOR SUPPORT			
Low need	37,3%	53,3%	9,3%
Medium need	41,5%	51,6%	6,9%
High need	31,2%	62,5%	6,3%

Table 12. In the past year (October 2018 - September 2019), have you participated in a digital multidisciplinary consult? (N=802)

Specialists who participated in a digital multidisciplinary consult were asked to indicate how often the used this possibility. Most specialists participated **one or more times a year** (37%) or **one or more times a month** (35,2%) in a digital multidisciplinary consult.

Our results showed regional differences in the frequency of participating in a digital multidisciplinary consult:

- The largest proportion of users in Brussels (57,1%) and Flanders (41,4%) used a digital multidisciplinary consult **one or more times a month**

- The largest proportion of users in Wallonia (44,4%) used a digital multidisciplinary consult **one or more times a year**

USE OF A DIGITAL MULTIDISCIPLINARY CONSULT

Graph 19. In the past year (October 2018 - September 2019), have you recommended your patients to use the following options regarding their health? (N=802)

Exploration with other variables revealed that the **frequency of participating in a digital multidisciplinary consult** varied across the **need for support** with the use of eHealth services.

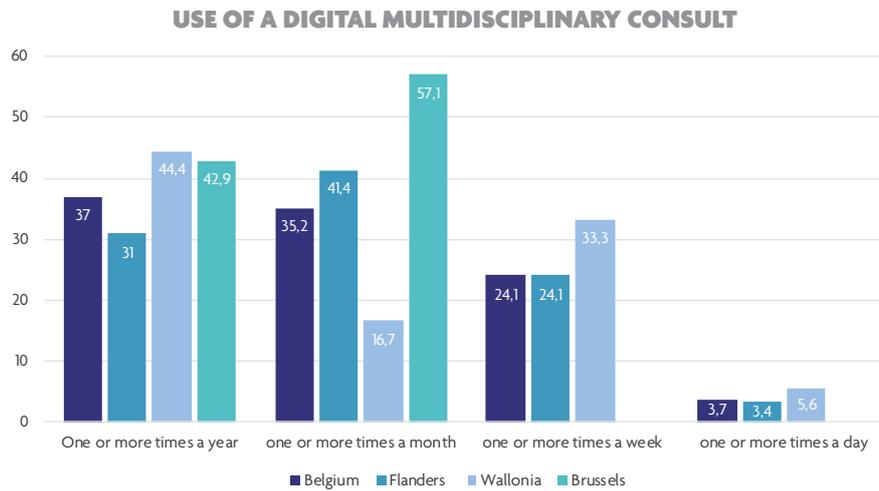|	One or more times a year	One or more times a month	One or more times a week	One or more times a day
NEED FOR SUPPORT				
Low need	28,6%	71,4%	0,0%	0,0%
Medium need	15,4%	61,5%	15,4%	7,7%
High need	47,1%	17,6%	32,4%	2,9%

Table 13. How often did you participate in a digital multidisciplinary consult? (N=54)

3. FUTURE USE OF TELECONSULTS AND TELEMONITORING

Specialists were asked their opinion regarding the future use of teleconsults and telemonitoring. Our results showed that the specialists in our sample tend to be **more positive** towards the future use of **telemonitoring**: 61,8% of specialists find the future use of telemonitoring desirable, compared to only 28,2% who find the future use of teleconsults desirable.

TELECONSULT EN TELEMONITORING
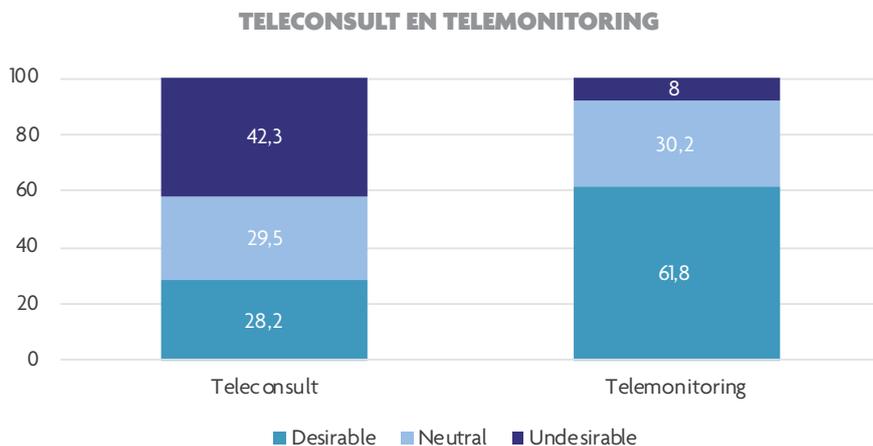
Graph 20. What do you think about using teleconsult/telemonitoring in the future? (N=802)

Exploration with other variables showed a relationship with **gender** and the **attitude towards teleconsults and telemonitoring**.

		Desirable	Neutral	Undesirable
SEX				
Teleconsult	Male	33,0%	30,3%	36,7%
	Female	21,3%	28,5%	50,2%
Telemonitoring	Male	65,5%	26,9%	7,7%
	Female	56,8%	34,8%	8,4%

Table 14. What do you think about using teleconsult/telemonitoring in the future? (N=802)

The attitude towards **telemonitoring** also varied across **age** categories.

Telemonitoring		Desired	Neutral	Undesired
AGE				
	25-34	68,8%	24,2%	7,0%
	35-44	67,5%	26,9%	5,6%
	45-54	60,1%	32,6%	7,3%
	55-64	56,4%	35,1%	8,5%
	65 and up	54,4%	30,4%	15,2%

Table 15. What do you think about using telemonitoring in the future? *Age category <25 was omitted from analyses as n = 2. (N=800)

4. KEY FINDINGS

USE OF DIGITAL APPLICATIONS FOR HEALTH PURPOSES

A minority of specialists in our sample **recommended** the use of digital applications for health purposes:

- A health-related app for smartphone or tablet (27,3%)

- Online tracking of self-measured health data (22,1%)

- The use of a wearable (10,8%)

USE OF A DIGITAL MULTIDISCIPLINARY CONSULT

The majority of specialists (62,4%) have **not participated** in a digital multidisciplinary consult but **would like to use this in the future**.

FUTURE USE OF TELECONSULTS AND TELEMONITORING

A larger proportion of specialists find the future use of **telemonitoring** (61,8%) desirable compared to the future use of **teleconsults** (28,2%).

ANNEX

ANNEX

1. GENERAL QUALITATIVE FEEDBACK ON EHEALTH

1. Technical issues

Specialists expressed many different, and sometimes very specific, **technical concerns** or **requests** regarding the use of eHealth services.

> Resp. 328. "Zeer moeilijke verbinding met eHealth te maken ikv elektrische identiteitskaart…"
>
> Resp. 210. "De betrouwbaarheid [van het systeem] laat op dit moment nog te wensen over."
>
> Resp. 846. "Les documents présents dans le RSW ne sont pas toujours 'lisibles' ".
>
> Resp. 84. "Tous les outils numériques officiels doivent être compatibles avec PC et Mac."

2. User friendliness

The specialists expressed the need for eHealth services to be **more user-friendly**.

> Resp. 697. "Les services de santé numériques devraient être friendly usable."
>
> Resp. 51. "Gebruiksvriendelijkheid dient de komende jaren sterk te verbeteren."

The lack of user friendliness was also mentioned specifically with regard to the **eHealthbox**.

> Resp. 89. "Het gebruik van de eHealthbox is (toch zeker op Apple) omslachtig en zeer gebruiksonvriendelijk."
>
> Resp. 906. "La boîte mail eHealth est inutilisable en pratique: se connecter est horrible, et je ne connais pas toujours le numéro Inami ou de société du médecin destinataire."

3. Questions, thoughts and feelings towards eHealth and eHealth services

Specialists feel there is **not enough transparency** regarding eHealth and eHealth services and that their **needs are not always taken into consideration** when designing these services. The specialists comprehend the **potential of eHealth** and eHealth services but believe that the current offer is **not living up to expectations**.

> Resp. 318. "Le numérique représente un énorme potentiel pour améliorer la qualité de nos soins de santé mais plusieurs conditions doivent absolument être remplies; notamment, l'implication de tout les acteurs de terrain (y compris le patient) depuis le début du projet, la prise en compte du contexte d'implémentation, du workflow, le training des utilisateurs,…"
>
> Resp. 120. "Je suis jeune, j'adore la technologie… mais là c'est juste une grosse blague…"
>
> Resp. 448. "Hoewel ik voorstander ben van digitalisering, vind ik het huidig aanbod een zootje ongeregeld, een bont allegaartje van slecht werkende (vb. medicatie aanvragen via eHealth /CIVARS) en slecht op elkaar afgestemde toepassingen. […] Ik begrijp dat dit veel codeerwerk vergt, maar in een tijd dat de wereldkampioen schaken reeds meer dan een decennium niet meer van de computer kan winnen, MOET dit beter! De rest zijn flauwe excuses en luiheid!"

4. Need for uniformity

The specialists expressed the need for **more uniformity** between the different platforms, hospital systems and eHealth services in general. The option of developing a **single national platform or database** was suggested as a possible solution.

> Resp. 417. "Il faut trouver d'urgence une solution globale pour les hôpitaux du pays: une database commune et sécurisée est la meilleure des options."
>
> Resp. 439. "Ik pleit voor 1 EPD systeem in heel België, dit zou een wijze investering zijn voor de overheid."
>
> Resp. 123. "Wordt tijd om de veelheid aan platforms samen te steken."

Resp. 847. "Moesten de overheidsapplicaties eens uniform en efficiënt zijn , moest er één medisch elektronisch dossier bestaan."

5. Other minor themes

- Need for a **fair remuneration** for the use of eHealth services

- **Privacy and security** concerns regarding eHealth services for both the **specialist** and the **patient**

- Concerns about making **all personal health data available** for the patient, as for some patients this might **not be desirable**

- A need for **clear information** regarding eHealth services in general