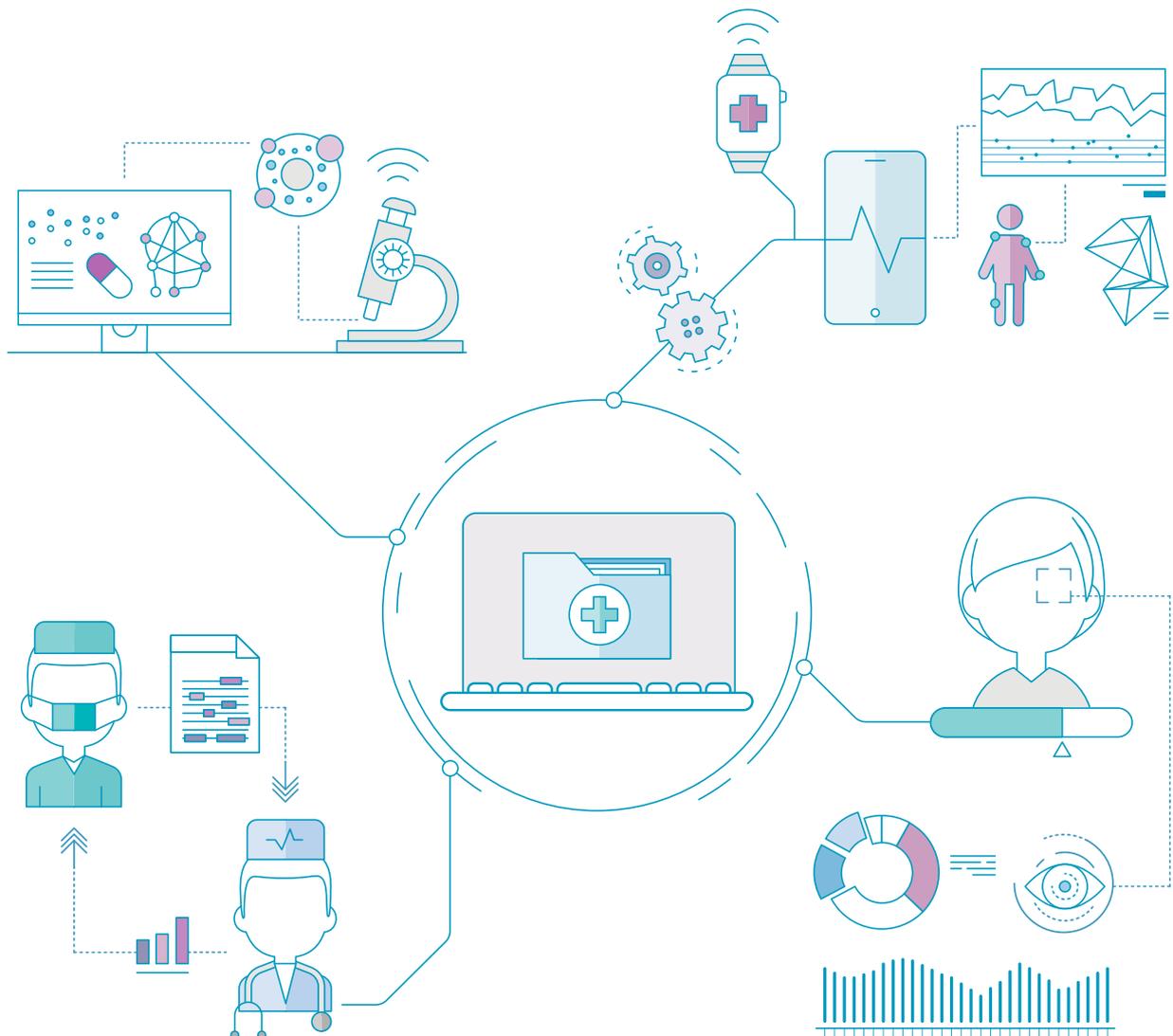




# ehealthmonitor 2019

## PHARMACISTS



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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 **pharmacists**. 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](http://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<sup>1</sup>** 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<sup>2</sup>. 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<sup>3</sup>. 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**.

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 were 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*”<sup>1</sup>. 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).

**AssurPharma.** eHealth service that allows to send documents electronically to the insurer for additional insurance.

**Chapter IV.** eHealth service that allows the electronic consultation of the approval for the reimbursement of medication from Chapter IV.

**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.

**e-vax.** eHealth service that allows the ordering of vaccinations. Currently this eHealth service is only available in Wallonia and Brussels.

**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, Mijgezondheid/Masanté, MyHealthViewer, CoZo, Vlaams Ziekenhuis Netwerk, Réseau Santé Bruxellois/Brussels Gezondheidsnetwerk and Réseau Santé Wallon.

**Health portal.** A secured website/application where patients can consult the health data that is made accessible to them.

**MyCareNet.** eHealth service that allows the electronic consultation of the insurability information of patients.

**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.

**RAOTD/archive.** eHealth service that allows the storage of the executed electronic medical prescriptions.

**Recip-e.** eHealth service that provides access to the outstanding electronic medical prescriptions.

**UPPAD.** eHealth service that allows the consultation of administrative information which the government has about you as a medical professional.

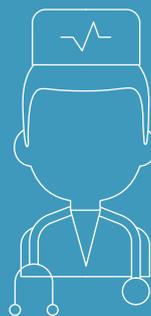
**Vaccinnet.** eHealth service that allows the ordering and distribution of vaccinations and is linked to a registration system for vaccinations. Currently this eHealth service is only available in Flanders.

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<sup>1</sup> European Commission. eHealth: digital health and care [Web page] (2019) [cited 22 June 2020]. Available from: [https://ec.europa.eu/health/eHealth/overview\\_en](https://ec.europa.eu/health/eHealth/overview_en)

CHAPTER 01

# 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**<sup>1</sup>.

|  | Belgium       | Flanders      | Wallonia      | Brussels    |
|--|---------------|---------------|---------------|-------------|
| <b>REGION (N=651)</b>                        |               | N=425         | N=169         | N=57        |
|  |               | 65,3% (59,7%) | 26,0% (31,2%) | 8,8% (9,1%) |
| <b>AGE (N=668)</b>                           |               |               |               |             |
| < 25 years                                   | 3,2% (3,1%)   | 4,2%          | 1,2%          | 1,8%        |
| 25-34 years                                  | 36,1% (24,6%) | 38,1%         | 32,0%         | 33,3%       |
| 35-44 years                                  | 24,7% (17,7%) | 25,4%         | 23,1%         | 24,6%       |
| 45-54 years                                  | 22,7% (19,0%) | 20,7%         | 27,8%         | 22,8%       |
| 55-64 years                                  | 11,7% (13,8%) | 9,9%          | 14,8%         | 15,8%       |
| 65+ years                                    | 1,5% (21,9%)  | 1,6%          | 1,2%          | 1,8%        |
| <b>LANGUAGE (N=692)</b>                      |               |               |               |             |
| Dutch  | 66,7%         | 99,1%         | 0,6%          | 21,1%       |
| French                                       | 33,3%         | 0,9%          | 99,4%         | 78,9%       |
| <b>SEX (N=669)</b>                           |               |               |               |             |
| Female                                       | 66,8% (71,2%) | 68,0%         | 66,9%         | 57,9%       |
| Male   | 33,0% (28,8%) | 31,8%         | 33,1%         | 42,1%       |
| Other  | 0,2%          | 0,2%          | 0,0%          | 0,0%        |
| <b>FUNCTION (N=692)</b>                      |               |               |               |             |
| Pharmacist in training                       | 1,7%          | 2,1%          | 0,0%          | 3,5%        |
| Assistant Pharmacist                         | 2,0%          | 1,6%          | 3,0%          | 1,8%        |
| Pharmacist                                   | 96,3%         | 96,2%         | 97,0%         | 94,7%       |
| <b>WORK EXPERIENCE AS PHARMACIST (N=646)</b> |               |               |               |             |
| 0-4 years                                    | 13,0%         | 13,5%         | 9,5%          | 20,0%       |
| 4-9 years                                    | 21,9%         | 24,0%         | 19,5%         | 12,7%       |
| 10-14 years                                  | 15,3%         | 14,9%         | 17,8%         | 10,9%       |
| 15-19 years                                  | 12,3%         | 13,7%         | 10,1%         | 9,1%        |
| 20-24 years                                  | 11,4%         | 10,6%         | 12,4%         | 14,5%       |
| 25-29 years                                  | 10,9%         | 10,6%         | 11,8%         | 10,9%       |
| 30-34 years                                  | 8,9%          | 7,5%          | 11,8%         | 10,9%       |
| 35-39 years                                  | 4,2%          | 3,4%          | 5,9%          | 5,5%        |
| 40-44 years                                  | 1,6%          | 1,7%          | 0,0%          | 5,5%        |
| 45-49 years                                  | 0,5%          | 0,2%          | 1,2%          | 0,0%        |

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

| TYPE OF WORKPLACE            |       |       |       |       |
|------------------------------|-------|-------|-------|-------|
| Pharmacy open for the public | 74,0% | 79,5% | 60,9% | 71,9% |
| Hospital pharmacy            | 26,4% | 20,7% | 40,2% | 28,1% |
| Public service (e.g. FAGG)   | 0,2%  | 0,2%  | 0,0%  | 0,0%  |
| Scientific research          | 0,5%  | 0,5%  | 0,6%  | 0,0%  |
| Other                        | 0,8%  | 0,9%  | 0,6%  | 0,0%  |

Compared to the Belgian population:

- Pharmacists in **Flanders** are **slightly overrepresented** and pharmacists in **Wallonia** and **Brussels** are **slightly underrepresented**
- **Male** pharmacists are **slightly overrepresented**
- Pharmacists **between 25 and 44 years** old are **overrepresented** and pharmacists **over the age of 65** are **underrepresented**<sup>2</sup>

<sup>2</sup> The percentages in the reference statistics (Steinberg 2019) reflect the number of pharmacists that are allowed to practice their profession. However, in the eHealthmonitor 2019 we only included pharmacists who are still actively working as a pharmacist which might explain the big difference in the 65+ category.

CHAPTER 02

# EHEALTH SERVICES

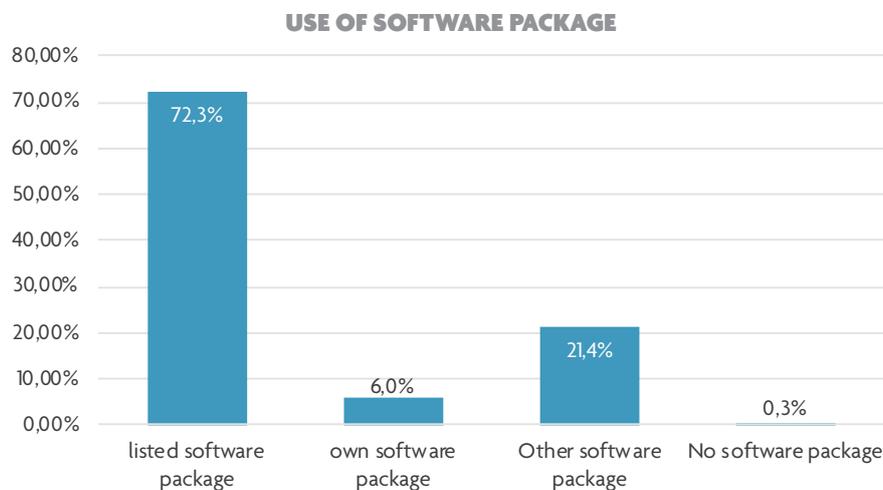


# EHEALTH SERVICES

In this part of the report we will focus on the **use of a software package** to manage patient files, the **use of eHealth services provided by the government**, the **level of satisfaction** with the use of these eHealth services and the **general attitude** of pharmacists **towards the use of digital applications** in their professional life.

## 1. MANAGING THE PATIENT FILE

Almost all pharmacists in our sample (99,7%) used a **software package** to manage the patient file: 72,3% used one of the listed software packages, 6% used an own software package and 21,4% used another software package. Only 0,3% of pharmacists did not use a software package.



Graph 1. What software package do you use in your pharmacy? (N=646)

## 2. USE OF EHEALTH SERVICES

Pharmacists were asked for each of **the eHealth services provided by the government**, that are available to their profession, to indicate whether they had used this service in the past year (October 2018 – September 2019).

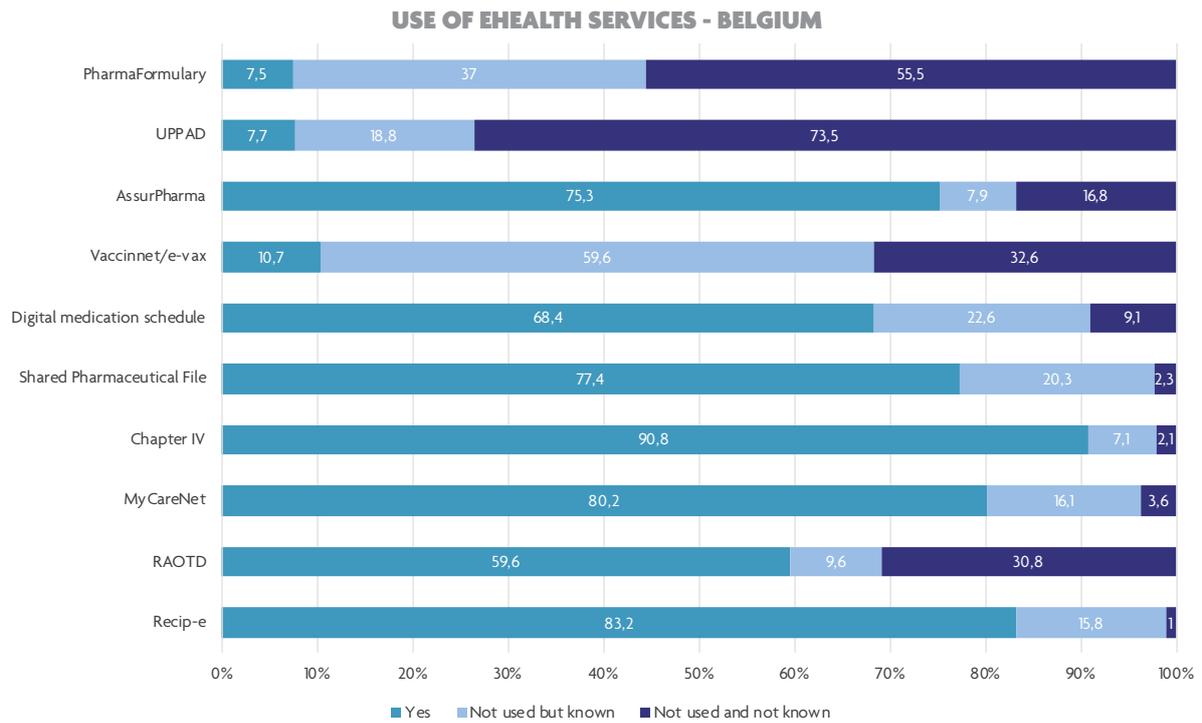
Our results showed that the **most used** eHealth services are:

- Chapter IV (90,8%)
- Recip-e (83,2%)
- MyCarenet (80,2%)
- Shared Pharmaceutical File (77,4%)
- AssurPharma (75,3%)

The **least used** eHealth services are:

- PharmaFormulary\* (7,5% of hospital pharmacists used it)
- UPPAD (7,7%)
- Vaccinet/e-vax (10,7%)

\*eHealth service only available for pharmacists working in a hospital pharmacy



Graph 2. Do you use the following eHealth services? (N=607)

Further exploration of these results showed regional differences in the use of all eHealth services.

| EHEALTH SERVICE             | REGION   | No and had not heard of it |                    |       |
|-----------------------------|----------|----------------------------|--------------------|-------|
|                             |          | Yes                        | No but heard of it | of it |
| Recip-e                     | Flanders | 90.2%                      | 9.0%               | 0.8%  |
|                             | Wallonia | 66.0%                      | 32.1%              | 1.9%  |
|                             | Brussels | 82.0%                      | 18.0%              | 0.0%  |
| RAOTD                       | Flanders | 63.1%                      | 8.8%               | 28.1% |
|                             | Wallonia | 48.4%                      | 11.9%              | 39.6% |
|                             | Brussels | 68.0%                      | 8.0%               | 24.0% |
| MyCareNet                   | Flanders | 84.9%                      | 12.6%              | 2.5%  |
|                             | Wallonia | 66.0%                      | 27.0%              | 6.9%  |
|                             | Brussels | 88.0%                      | 10.0%              | 2.0%  |
| Chapter IV                  | Flanders | 92.0%                      | 6.5%               | 1.5%  |
|                             | Wallonia | 86.2%                      | 10.1%              | 3.8%  |
|                             | Brussels | 96.0%                      | 2.0%               | 2.0%  |
| Shared Pharmaceutical File  | Flanders | 83.2%                      | 15.3%              | 1.5%  |
|                             | Wallonia | 61.6%                      | 33.3%              | 5.0%  |
|                             | Brussels | 82.0%                      | 18.0%              | 0.0%  |
| Digital medication schedule | Flanders | 78.9%                      | 19.1%              | 2.0%  |
|                             | Wallonia | 40.3%                      | 32.7%              | 27.0% |
|                             | Brussels | 74.0%                      | 18.0%              | 8.0%  |
| Vaccinnet/e-vax             | Flanders | 14.6%                      | 71.4%              | 14.1% |
|                             | Wallonia | 1.9%                       | 27.0%              | 71.1% |
|                             | Brussels | 8.0%                       | 34.0%              | 58.0% |

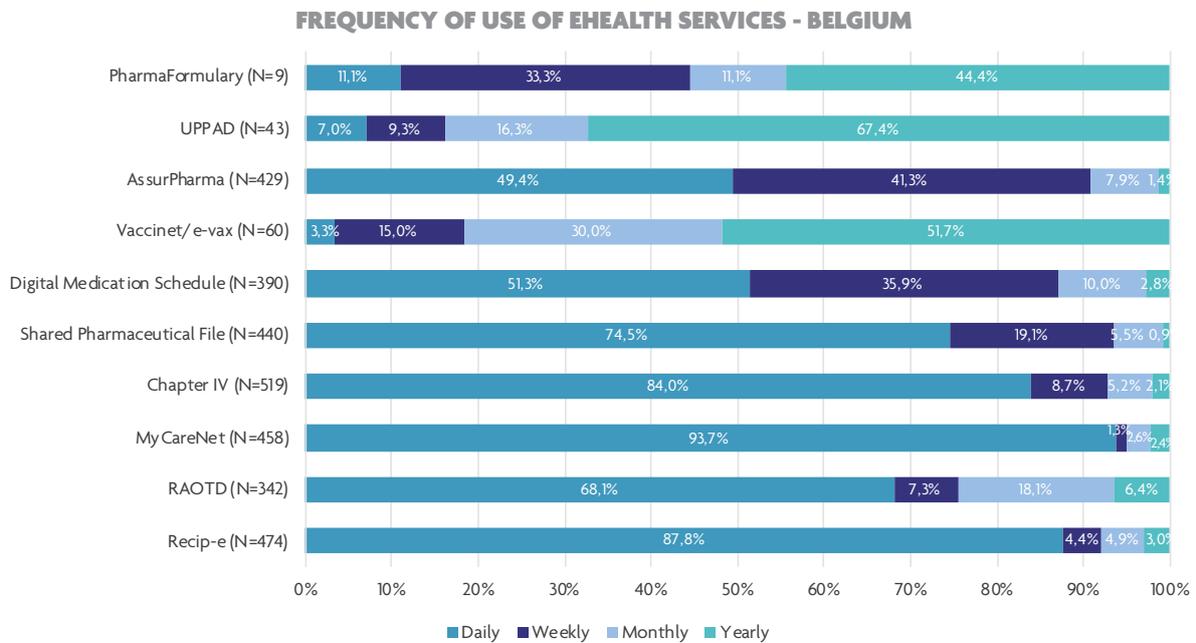
|                 |          |       |       |       |
|-----------------|----------|-------|-------|-------|
| AssurPharma     | Flanders | 80.7% | 5.8%  | 13.6% |
|                 | Wallonia | 61.0% | 10.7% | 28.3% |
|                 | Brussels | 78.0% | 16.0% | 6.0%  |
| UPPAD           | Flanders | 7.5%  | 19.6% | 72.9% |
|                 | Wallonia | 6.9%  | 17.6% | 75.5% |
|                 | Brussels | 12.0% | 16.0% | 72.0% |
| PharmaFormulary | Flanders | 2.7%  | 29.7% | 67.6% |
|                 | Wallonia | 14.3% | 42.9% | 42.9% |
|                 | Brussels | 0.0%  | 55.6% | 44.4% |

Table 1. Do you use the following eHealth services? (N=607)

For each of the eHealth services pharmacists used, they were asked to indicate the **frequency of use**.

Our results showed that the eHealth services with the **highest frequency of use** are:

- MyCareNet (93,7% of pharmacists used it daily)
- Recip-e (87,8% of pharmacists used it daily)
- Chapter IV (84% of pharmacists used it daily)



Graph 3. How often do you use the following eHealth services? (N is provided per service)

Exploration with other variables showed that the **use** of several eHealth services varied across **age** categories.

| EHEALTH SERVICE                | AGE   | Don't use it, but have |             |                     |
|--------------------------------|-------|------------------------|-------------|---------------------|
|                                |       | I use it               | heard of it | Haven't heard of it |
| Recip-e                        | < 25  | 94,7%                  | 0,0%        | 5,3%                |
|                                | 25-34 | 80,5%                  | 19,1%       | 0,5%                |
|                                | 35-44 | 78,3%                  | 21,1%       | 0,7%                |
|                                | 45-54 | 86,6%                  | 12,0%       | 1,4%                |
|                                | 55-64 | 90,1%                  | 8,5%        | 1,4%                |
| RAOTD                          | < 25  | 47,4%                  | 15,8%       | 36,8%               |
|                                | 25-34 | 50,7%                  | 7,4%        | 41,9%               |
|                                | 35-44 | 60,5%                  | 9,9%        | 29,6%               |
|                                | 45-54 | 66,9%                  | 7,7%        | 25,4%               |
|                                | 55-64 | 70,4%                  | 16,9%       | 12,7%               |
| MyCareNet                      | < 25  | 94,7%                  | 5,3%        | 0,0%                |
|                                | 25-34 | 74,4%                  | 21,4%       | 4,2%                |
|                                | 35-44 | 75,0%                  | 20,4%       | 4,6%                |
|                                | 45-54 | 89,4%                  | 7,0%        | 3,5%                |
|                                | 55-64 | 84,5%                  | 14,1%       | 1,4%                |
| Shared<br>Pharmaceutical File  | < 25  | 94,7%                  | 5,3%        | 0,0%                |
|                                | 25-34 | 70,2%                  | 28,8%       | 0,9%                |
|                                | 35-44 | 71,1%                  | 25,0%       | 3,9%                |
|                                | 45-54 | 86,6%                  | 9,2%        | 4,2%                |
|                                | 55-64 | 87,3%                  | 12,7%       | 0,0%                |
| Digital Medication<br>Schedule | < 25  | 100,0%                 | 0,0%        | 0,0%                |
|                                | 25-34 | 61,4%                  | 29,8%       | 8,8%                |
|                                | 35-44 | 69,1%                  | 19,1%       | 11,8%               |
|                                | 45-54 | 73,2%                  | 18,3%       | 8,5%                |
|                                | 55-64 | 70,4%                  | 23,9%       | 5,6%                |
| Vaccinnet/e-vax                | < 25  | 21,1%                  | 57,9%       | 21,1%               |
|                                | 25-34 | 13,5%                  | 56,3%       | 30,2%               |
|                                | 35-44 | 11,8%                  | 57,9%       | 30,3%               |
|                                | 45-54 | 2,8%                   | 59,2%       | 38,0%               |
|                                | 55-64 | 14,1%                  | 47,9%       | 38,0%               |
| AssurPharma                    | < 25  | 84,2%                  | 15,8%       | 0,0%                |
|                                | 25-34 | 66,5%                  | 10,7%       | 22,8%               |
|                                | 35-44 | 71,7%                  | 8,6%        | 19,7%               |
|                                | 45-54 | 86,6%                  | 1,4%        | 12,0%               |
|                                | 55-64 | 81,7%                  | 9,9%        | 8,5%                |
| UPPAD                          | < 25  | 5,3%                   | 26,3%       | 68,4%               |
|                                | 25-34 | 3,7%                   | 13,5%       | 82,8%               |
|                                | 35-44 | 7,2%                   | 19,1%       | 73,7%               |
|                                | 45-54 | 12,7%                  | 17,6%       | 69,7%               |
|                                | 55-64 | 9,9%                   | 33,8%       | 56,3%               |

|  |       |       |       |       |
|--|-------|-------|-------|-------|
| PharmaFormulary <sup>1</sup> (N = 146) | 25-34 | 2,9%  | 29,4% | 67,6% |
|  | 35-44 | 13,0% | 37,0% | 50,0% |
|  | 45-54 | 10,5% | 47,4% | 42,1% |
|  | 55-64 | 9,1%  | 72,7% | 18,2% |

Table 2. Do you use the following eHealth services? \*Category 65+ was omitted from analysis as n = 8. (N = 599)

**Gender** only had an effect on the **use of RAOTD**.

| EHEALTH SERVICE | SEX    | I use it | Don't use it, but have heard of it | Haven't heard of it |
|-----------------|--------|----------|------------------------------------|---------------------|
|                 |        | RAOTD    | Male                               | 74,0%               |
|                 | Female | 52,5%    | 11,1%                              | 36,5%               |

Table 3. Do you use the following eHealth services? \*Gender category 'Other' was omitted from reporting as n = 1. N = 606.

## A. QUALITATIVE FEEDBACK ON THE USE OF EHEALTH SERVICES

The reasons for **not using** an eHealth service were analyzed for some of the eHealth services

### RAOTD

#### 1. Use of a different method

Pharmacists indicated that they used a **different method** or that they believed **another method** achieved the **same result**.

Resp. 221. "Deja inclus dans nos programmes pour la prescription."

Resp 55. "EPD."

Resp. 526. "Je suppose que corilus fait le necessaire."

#### 2. No need

Some pharmacists mentioned that there had been **no need to use the RAOTD** or that it was **not in their job function**.

Resp 615. "Niet mijn functie in de apotheek."

Resp 138. "Nog niet nodig gehad."

Resp 516. "Niet nodig als apotheker."

### DIGITAL MEDICATION SCHEDULE

#### 1. No access to the service

Pharmacists believed they **did not have access** to this service.

Resp 619. "Je pense ne pas y avoir accès en tant que pharmacien, service uniquement réservé aux médecins. Une doctoresse me l'imprime et me le fournit pour les patients très complexes. Quel dommage, cette non généralisation!"

Resp 394. "Je pense pas accessible dans ma region."

**Hospital pharmacists** also stated they **did not have access** to this service or wondering whether they did have access to it. **Access** to this service was seen as an **added value**.

Resp 309. "Is dit beschikbaar voor ziekenhuisapothekers? Dit zou een grote meerwaarde betekenen."

Resp 308. "Geen integratie met onze systemen in het ziekenhuis wat heel jammer is."

Resp 171. "Pas d'accès pour les pharmaciens hospitaliers."

<sup>1</sup> For the service "PharmaFormulary" a different n is provided, as this is a service that is only used by pharmacists who work in a hospital pharmacy

## 2. Not supported by software, poorly implemented in the software and/or not user friendly.

The **implementation** was often **not up to standards** and **not always available** in the software used by pharmacists, also a **lack of user-friendliness** was mentioned by pharmacists.

Resp 245. "Pas d'interfaçage avec notre logiciel de prescription informatisée (H+ Xperthis)."

Resp 322. "Gebrekkige compatibiliteit met mijn soft."

Resp 365. "Nog niet optimaal geïmplementeerd in mijn systeem."

Resp 353. "Het gebruik van de dienst is niet gebruiksvriendelijk zeker niet als dit moet worden binnengetrokken worden in vianova."

## 3. Use of a 'homemade' service.

Certain pharmacists had made their **own version** of the service and used that.

Resp 100. "Je n'ai pas accès à ce service comme pharmacien. J'en fait moi même mais il est seulement visible pour moi et mon patient (impression)."

Resp 37. "We hebben een eigen medicatieschema, voor wat betreft de medicatie toegediend in zh. Maar geen zicht op het digitaal medicatieschema van de officina apotheek."

Resp 204. "Je l'ai dans mon programme maison."

Resp 192. "Lokaal medicatieschema."

## UPPAD

### 1. Lack of knowledge

The service was **unknown** to pharmacists, as was the **added value** of the service.

Resp 592. "Nog nooit van gehoord."

Resp 478. "Je ne sais pas ce que cela peut m'apporter, je ne connais pas bien."

Resp 245. "Je ne connais pas ce service. A quoi sert-il? Que peut-il apporter?"

Resp 164. "Ik ken dit niet."

# 3. INTEREST IN THE USE OF EHEALTH SERVICES

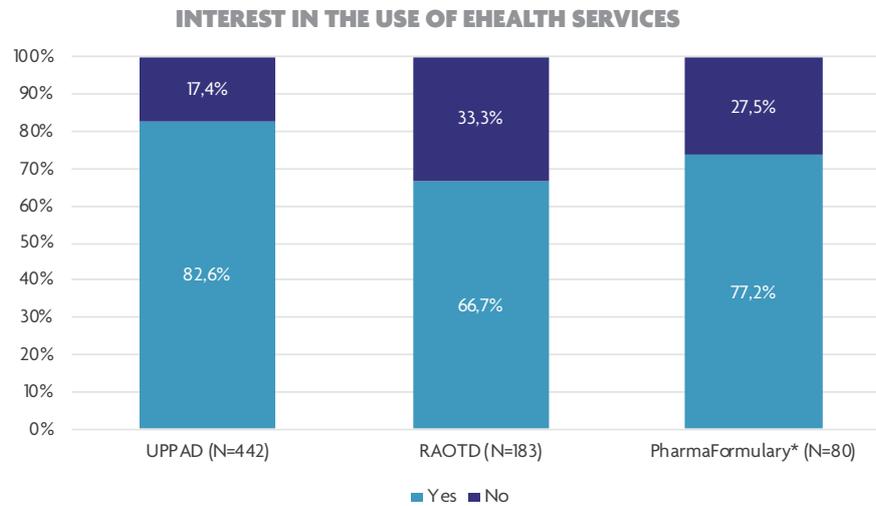
For the eHealth services pharmacists did not use in the past year (October 2018 - September 2019), they were asked to indicate whether they have heard of the service or not.

Our results showed that the **least known** eHealth services are:

- UPPAD (73,5% of pharmacists had not heard of it)
- RAOTD (30,8% of pharmacists had not heard of it)
- PharmaFormulary\* (55,5% of hospital pharmacists had not heard of it)

\*eHealth service only available for pharmacists working in a hospital pharmacy

For those eHealth services pharmacists had not heard of, they were asked whether they would like to use them. For each of the least known eHealth services (UPPAD, RAOTD and PharmaFormulary), more than 2 out of 3 pharmacists in our sample indicated that they would like to use them.



Graph 4. You indicated that you never heard of this eHealth service. Can you please indicate per service if you would like to use it (N is provided per service) \*This eHealth service is only available for pharmacists working in a hospital pharmacy.

## 4. SATISFACTION WITH EHEALTH SERVICES

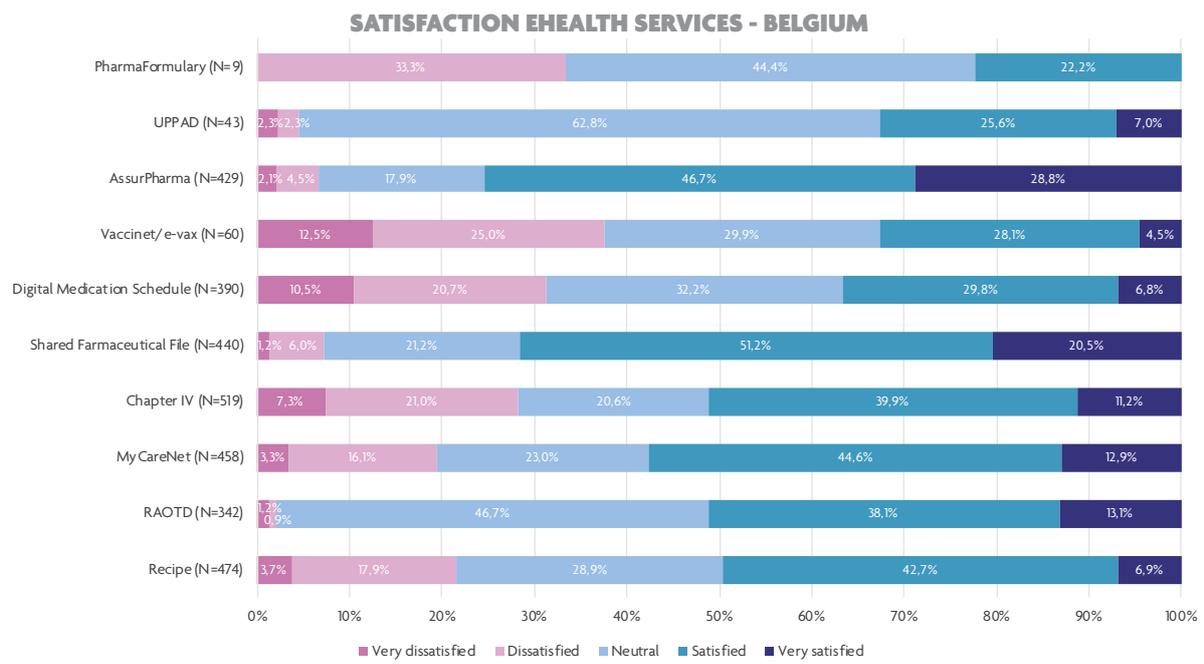
For those eHealth services pharmacists had used in the past year (October 2018 – September 2019), they were asked to indicate how satisfied they were with the use of the service.

Our results showed that the eHealth services with the **highest rate of satisfaction** are:

- AssurPharma (75,5% of pharmacists were (very) satisfied)
- Shared pharmaceutical file (71,7% of pharmacists were (very) satisfied)
- MyCareNet (57,5% of pharmacists were (very) satisfied)

The eHealth services with the **highest rate of dissatisfaction** are:

- Vaccinnet/e-vax (37,5% of pharmacists were (very) dissatisfied)
- PharmaFormulary (33,3% of pharmacists were (very) dissatisfied)
- Digital medication schedule (31,2% of pharmacists were (very) dissatisfied)



Graph 5. How satisfied are you with the following eHealth services? (N provided for each service)

Exploration with other variables showed that the **level of satisfaction** with the **Digital Medication Schedule** varied across **age** categories. Analyses with **gender** revealed a difference in **satisfaction with RAOTD**.

|                             |       | Very dissatisfied | Dissatisfied | Neutral | Satisfied | Very satisfied |
|-----------------------------|-------|-------------------|--------------|---------|-----------|----------------|
| EHEALTH SERVICE             | AGE   |                   |              |         |           |                |
| Digital Medication Schedule | < 25  | 0,0%              | 28,6%        | 21,4%   | 21,4%     | 28,6%          |
|                             | 25-34 | 9,5%              | 20,6%        | 28,6%   | 34,9%     | 6,3%           |
|                             | 35-44 | 14,6%             | 27,1%        | 29,2%   | 27,1%     | 2,1%           |
|                             | 45-54 | 13,4%             | 15,5%        | 34,0%   | 29,9%     | 7,2%           |
|                             | 55-64 | 0,0%              | 15,2%        | 47,8%   | 26,1%     | 10,9%          |

Table 4. How satisfied are you with the following eHealth services? Category '65+' was omitted from reporting as n = 3 (N = 379)

|                 |        | Very dissatisfied | Dissatisfied | Neutral | Satisfied | Very satisfied |
|-----------------|--------|-------------------|--------------|---------|-----------|----------------|
| EHEALTH SERVICE | SEX    |                   |              |         |           |                |
| RAOTD           | Male   | 2,1%              | 0,7%         | 39,3%   | 38,6%     | 19,3%          |
|                 | Female | 0,5%              | 1,0%         | 52,3%   | 37,4%     | 8,7%           |

Table 5. How satisfied are you with the following eHealth services? Gender category 'Other' was omitted from reporting as n = 1. (N = 335)

## A. QUALITATIVE FEEDBACK ON SATISFACTION WITH EHEALTH SERVICES

The reasons for **dissatisfaction** were analyzed for some of the eHealth services.

### DIGITAL MEDICATION SCHEDULE

#### 1. Collaboration with other healthcare professionals

The **collaboration with other healthcare professionals** on the digital medication schedule was found to be complicated for several reasons:

- No **shared** medication schedule
  - Resp 433. "Geen gedeeld medicatieschema."
  - Resp 358. "Geen gedeelde schema's met ziekenhuis."
  - Resp 570. "Artsen en apothekers halen elkaar schema's door elkaar."
- **Not used enough** by **other** healthcare professionals
  - Resp 345. "Bijzonder weinig artsen gebruiken dit systeem waardoor het nut deels vervalt."
  - Resp 439. "Te weinig info van andere zorgverleners."
  - Resp 491. "Artsen werken er nog niet voldoende mee."

#### 2. Technical problems

Pharmacists indicated that the eHealth service was **not compatible** with the software package of other healthcare professionals.

- Resp 5. "Onverenigbaarheden met artsenpakketten."
- Resp 516. "De software systemen van arts en apotheker zijn niet compatibel om op een snelle manier te gebruiken ( dubbele lijnen, overschrijven van schema van arts...)."
- Resp 177. "Werkt niet/ niet compatibel met artsensoftware."

Pharmacists also experienced problems **uploading information** due to the different **incompatible software packages** used by healthcare professionals.

- Resp 649. "Uploaden van medicatieschema's naar Vitalink loopt verkeerd door het gebruik van verschillende software programma's door verschillende zorgverleners."

#### 3. Wrong information and reliability of information

Pharmacists mentioned that the information on the Digital medication Schedule was **not always correct**.

- Resp 541. "De voorschriften zijn dikwijls foutief waardoor toegang moeilijk wordt."
- Resp 16. "Niet correct."
- Resp 318. "Vitalink bevat veel fouten in schema."

Furthermore, there were questions about the **reliability of the information** due to the lack of use and technical bugs.

- Resp 249. "Medicatieschema's die beschikbaar zijn worden te weinig onderhouden om echt betrouwbaar te zijn."
- Resp 4. "Absoluut onveilig omdat het elke dag wel eens niet werkt. Gegevens worden dan niet gesynchroniseerd!"

## CHAPTER IV

### 1. Missing functionalities

Pharmacists mentioned several **functionalities that they missed** in the use of this eHealth service.

- They were not able to **find all certificates** or stated that **not all certificates were included**
  - Resp 36. “Aantal attestaten zijn niet terug te vinden, bv. Pijnstillers.”
  - Resp 439. “Te beperkt, alle attestaten moeten hierin.”
  - Resp 170. “Zou moeten uitgebreid worden naar alle attestaten.”
- They were not able to get a **global overview** of the patient
  - Resp 559. “Pas de possibilité d'avoir l'ensemble des médicaments remboursés pour un patient.”
  - Resp 145. “Impossible d'avoir un aperçu global par patient des autorisations reçues et de leur historique.”
- They were not able to view the **amount of medication** a patient has already received
  - Resp 386. “Il faudrait voir le n,ombre d eboites que le patient a déjà reçu toute officine confondue.”
  - Resp 384. “Geen blokkeren bij overschrijden van hoeveelheden.”
  - Resp 511. “Ne tiens pas compte du nombre de boites.”
- They were not able to consult **old certificates**
  - Resp 384. “Oude attestaten niet te raadplegen.”

### 2. User friendliness

Pharmacists found the use of the eHealth service **too complex** and **not user-friendly**.

- Resp 25. “Niet gebruiksvriendelijk.”
- Resp 245. “La recherche n'est pas convivial.”

### 3. Technical issues

Pharmacists indicated that the service **did not always function properly**.

- Resp 374. “Le systeme ne répond pas toujours même si il y a attestation chez le patient.”
- Resp 170. “Dienst zou nooit mogen plat liggen.”

## RECIP-E

### 1. Technical issues

Pharmacists experienced problems with the **stability** of the eHealth service.

- Resp 241. “Teveel keer dat het systeem plat ligt bij jullie!!”
- Resp 661. “Te snel ingevoerd zonder stabiliteit.”
- Resp 653. “SOA - systeem helemaal plat - nachtmerrie voor apothekers.”

### 2. User friendliness

Pharmacists found that the eHealth service was **not easy** to use. Also, they were **not able execute all the tasks** that they would like to.

- Resp 617. “Pas facile à mettre en pratique au comptoir devant le patient.”
- Resp 384. “Ik kan geen commentaren toevoegen aan voorschriften.”
- Resp 17. “Enkel voorschriften ophalen met barcode, geen zoekfunctie of consulteren geschiedenis.”

### 3. Collaboration with other healthcare professionals

Pharmacists found that the use of the eHealth service **between different healthcare professionals** is **complicated** and that there is a **lack of compatibility** between the different software providers.

Resp 626. “Codes encodés par les médecins ne correspondent pas à la base de données des pharmaciens ils devraient la payer comme nous.”

Resp 664. “Médecin qui prescrivent en texte sans mettre les médicaments.”

Resp 435. “Geen overeenstemming tussen softwarehuizen.”

### 4. Integration of non-commercially available medication

Pharmacists mentioned that the **non-commercially available medications (compounding)** are **not yet integrated** in the eHealth service

Resp 664. “Magistrale toujours pas intégrée.”

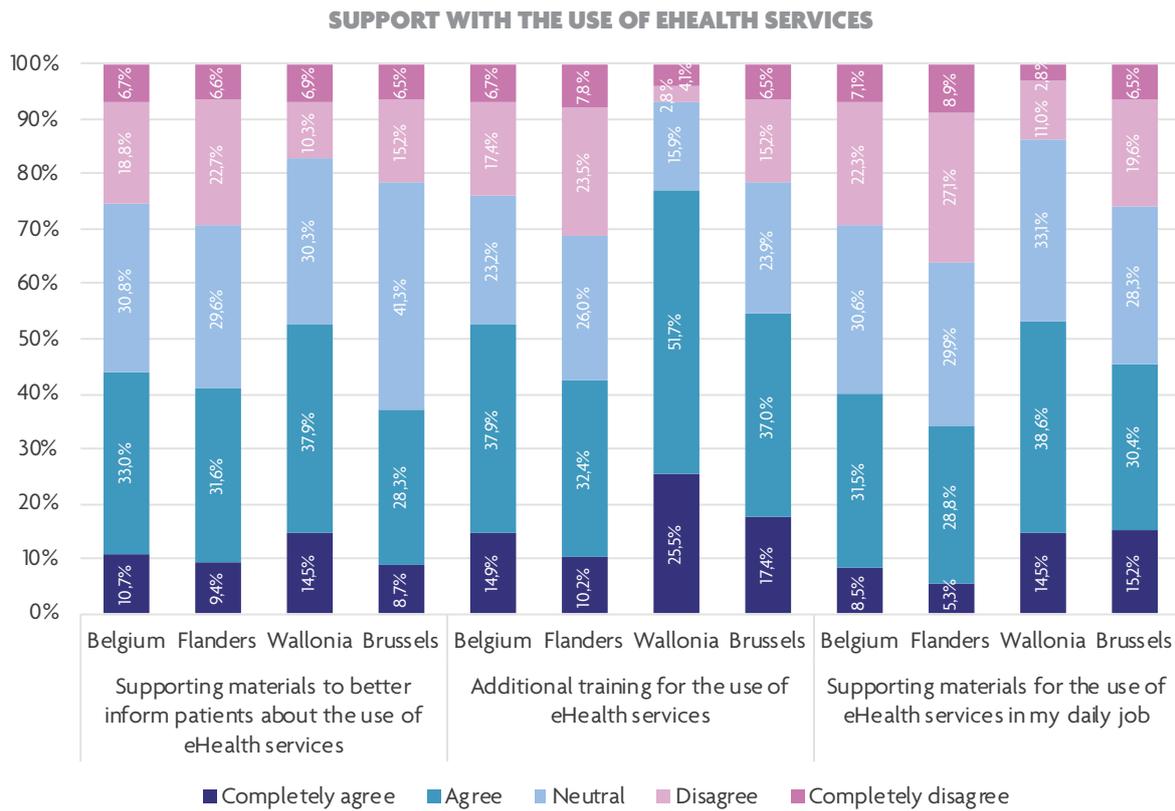
Resp 435. “Geen overdracht magistrale bereidingen.”

## 5. NEED FOR SUPPORT WITH THE USE OF EHEALTH SERVICES

Around 45% of pharmacists in our sample indicated the need for additional training and supporting materials for the use of eHealth services:

- 52,8% of pharmacists would like **additional training** regarding the use of eHealth services.
- 43,7% of pharmacists would like supporting materials to better **inform patients** about the use of eHealth services.
- 40,0% of pharmacists would like supporting materials for the **use of eHealth services in their daily job**.

Our results showed that pharmacists in Wallonia expressed a higher need for supporting materials to **inform patients** (52,4%), supporting materials for the **use of eHealth services in their daily job** (53,1%) and **additional training** for the use of eHealth services (77,2%).



Graph 6. To what extent do you agree or disagree with following statements regarding support in using eHealth services in your professional life? (N=552)

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 majority of pharmacists in our sample (78,6%) fall into the medium or high need for support category.

| NEED FOR SUPPORT | Low need | Medium need | High need |
|------------------|----------|-------------|-----------|
|                  | 21,3%    | 33,9%       | 44,7%     |

Table 6. Need for support in using eHealth services in your professional life (N = 552)

Further exploration of these results showed that a higher percentage of pharmacists in Wallonia (63,4%) fall into the high need for support category.

| REGION   | NEED FOR SUPPORT |             |           |
|----------|------------------|-------------|-----------|
|          | Low need         | Medium need | High need |
| Flanders | 26.9%            | 36.3%       | 36.8%     |
| Wallonia | 9.0%             | 27.6%       | 63.4%     |
| Brussels | 17.4%            | 34.8%       | 47.8%     |

Table 7. Need for support in using eHealth services in your professional life (N = 552)

Exploration with other variables showed **gender differences** in the **need for support** with the use of ehealth services.

| NEED FOR SUPPORT | SEX   |        |
|------------------|-------|--------|
|                  | Male  | Female |
| Low need         | 43.2% | 55.9%  |
| Medium need      | 34.2% | 65.8%  |
| High need        | 28.7% | 71.3%  |

Table 8. Need for support in using eHealth services in your professional life (N = 552)

For all eHealth services that revealed a significant difference between groups, a **higher percentage of pharmacists** in the **low need** group **used** the service, compared to pharmacists in the medium and high need group. There is however one exception, namely Vaccinnet/e-vax, which is used most by pharmacists with a **medium need for support** with the use of eHealth services.

| EHEALTH SERVICE                   | NEED FOR SUPPORT | Don't use it, but have |             |                     |
|-----------------------------------|------------------|------------------------|-------------|---------------------|
|                                   |                  | I use it               | heard of it | Haven't heard of it |
| Recip-e                           | Low need         | 90,7%                  | 9,3%        | 0,0%                |
|                                   | Medium need      | 85,0%                  | 14,4%       | 0,5%                |
|                                   | High need        | 77,7%                  | 20,2%       | 2,0%                |
| RAOTD                             | Low need         | 72,0%                  | 6,8%        | 21,2%               |
|                                   | Medium need      | 60,4%                  | 8,0%        | 31,6%               |
|                                   | High need        | 54,7%                  | 9,7%        | 35,6%               |
| Insurance information (MyCareNet) | Low need         | 91,5%                  | 5,9%        | 2,5%                |
|                                   | Medium need      | 82,4%                  | 15,5%       | 2,1%                |
|                                   | High need        | 73,3%                  | 21,1%       | 5,7%                |
| Chapter IV (MyCareNet)            | Low need         | 98,3%                  | 1,7%        | 0,0%                |
|                                   | Medium need      | 93,6%                  | 4,8%        | 1,6%                |
|                                   | High need        | 85,8%                  | 10,1%       | 4,0%                |
| Shared Pharmaceutical File        | Low need         | 87,3%                  | 12,7%       | 0,0%                |
|                                   | Medium need      | 78,6%                  | 19,3%       | 2,1%                |
|                                   | High need        | 71,3%                  | 25,1%       | 3,6%                |
| Digital Medication Schedule       | Low need         | 74,6%                  | 21,2%       | 4,2%                |
|                                   | Medium need      | 72,2%                  | 20,9%       | 7,0%                |
|                                   | High need        | 62,8%                  | 25,1%       | 12,1%               |
| Vaccinnet/e-vax                   | Low need         | 10,2%                  | 66,9%       | 22,9%               |
|                                   | Medium need      | 12,8%                  | 60,4%       | 26,7%               |
|                                   | High need        | 8,9%                   | 49,8%       | 41,3%               |
| AssurPharma                       | Low need         | 86,4%                  | 3,4%        | 10,2%               |
|                                   | Medium need      | 77,5%                  | 7,0%        | 15,5%               |
|                                   | High need        | 68,4%                  | 10,1%       | 21,5%               |

Table 9. Do you use the following eHealth services? (N = 552)

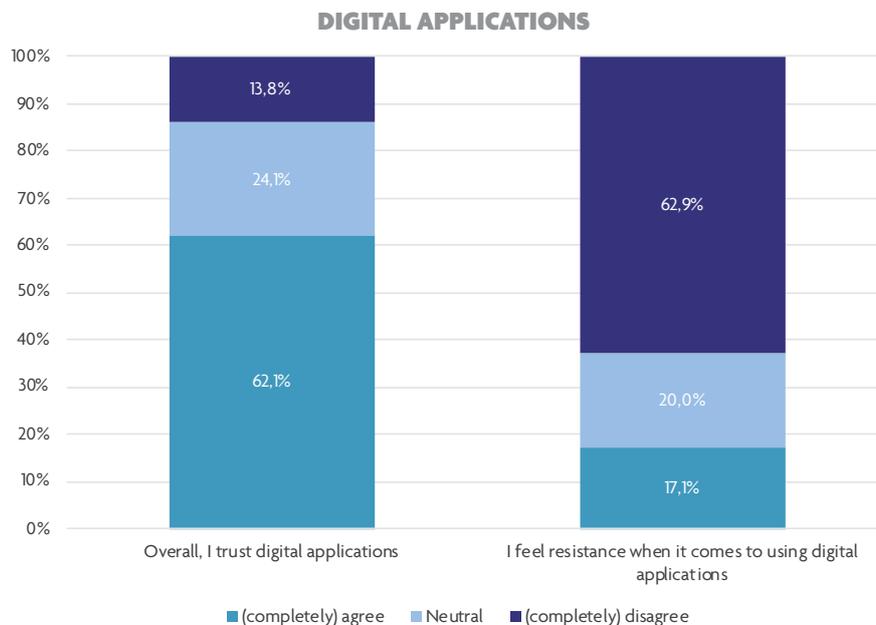
Further exploration with other variables also showed that the **level of satisfaction** with the use of certain eHealth services varied according to the **need for support** with the use of eHealth services.

| EHEALTH SERVICE                             | NEED FOR SUPPORT | Very dissatisfied | Dissatisfied | Neutral | Satisfied | Very satisfied |
|---|------------------|-------------------|--------------|---------|-----------|----------------|
|   |                  | Recip-e (N = 458) | Low need     | 11,2%   | 28,0%     | 23,4%          |
|   | Medium need      | 0,6%              | 18,2%        | 27,7%   | 45,3%     | 8,2%           |
|   | High need        | 2,1%              | 12,5%        | 31,8%   | 46,9%     | 6,8%           |
| Insurance information (MyCareNet) (N = 443) | Low need         | 7,4%              | 25,0%        | 24,1%   | 34,3%     | 9,3%           |
|   | Medium need      | 0,0%              | 13,6%        | 23,4%   | 48,7%     | 14,3%          |
|   | High need        | 3,9%              | 12,7%        | 21,5%   | 47,5%     | 14,4%          |
| Chapter IV (MyCareNet) (N = 503)            | Low need         | 10,3%             | 25,9%        | 23,3%   | 31,9%     | 8,6%           |
|   | Medium need      | 3,4%              | 23,4%        | 20,6%   | 40,6%     | 12,0%          |
|   | High need        | 9,0%              | 16,0%        | 18,9%   | 43,9%     | 12,3%          |
| Digital Medication Schedule (N = 378)       | Low need         | 18,2%             | 25,0%        | 31,8%   | 22,7%     | 2,3%           |
|   | Medium need      | 6,7%              | 21,5%        | 39,3%   | 25,9%     | 6,7%           |
|   | High need        | 9,7%              | 16,8%        | 26,5%   | 37,4%     | 9,7%           |

Table 10. How satisfied are you with the following eHealth services? (N =552)

## 6. GENERAL ATTITUDE TOWARDS THE USE OF DIGITAL APPLICATIONS

Pharmacists were asked for their opinion regarding the use of digital applications in their professional life. The majority of pharmacists in our sample (62,1%) indicated they trust digital applications. 17,1% of pharmacists indicated to feel a certain degree of **resistance** when it comes to using digital applications.



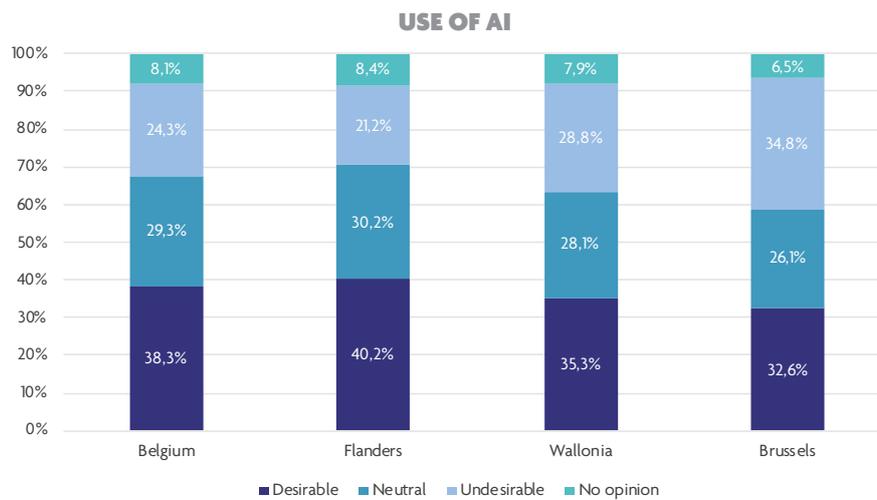
Graph 7. To what extent do you agree or disagree with following statements regarding your use of digital applications in your professional life? (N=544)

Exploration with other variables showed **gender differences** in the **resistance** towards digital applications.

|            | Completely disagree | Disagree | Neutral | Agree | Completely agree |
|------------|---------------------|----------|---------|-------|------------------|
| <b>SEX</b> |                     |          |         |       |                  |
| Male       | 26,2%               | 37,2%    | 17,5%   | 16,9% | 2,2%             |
| Female     | 15,3%               | 47,2%    | 21,4%   | 14,4% | 1,7%             |

Table 11. To what extent do you agree or disagree with following statements regarding your use of digital applications in your professional life? \*Gender category 'other' was omitted from reporting as n = 1. (N = 543)

38,3% of pharmacists found the use of digital tools in decision making, that use **AI** to make suggestions, **desirable**. 29,3% was **neutral** and 24,3% felt it was **undesirable**. 8,1% of pharmacists had no opinion on this matter. A lower percentage of pharmacists in Brussels (32,6%) found the use of AI desirable.



Graph 8. What is your opinion on using digital tools in decision making that use AI to make suggestions (e.g. selecting the best medication)? (N=543)

Exploration with other variables showed that the **attitude toward the use of AI** varied across **age** categories.

|            | Desired | Neutral | Undesired | I have no opinion on this matter |
|------------|---------|---------|-----------|----------------------------------|
| <b>AGE</b> |         |         |           |                                  |
| < 25       | 33,3%   | 41,7%   | 25,0%     | 0,0%                             |
| 25-34      | 40,9%   | 22,2%   | 27,3%     | 9,6%                             |
| 35-44      | 36,1%   | 30,1%   | 20,3%     | 13,5%                            |
| 45-54      | 35,7%   | 34,1%   | 26,4%     | 3,9%                             |
| 55-64      | 35,4%   | 40,0%   | 21,5%     | 3,1%                             |

Table 12. What is your opinion on using digital tools in decision making that use AI to make suggestions (e.g. selecting the best medication)? \*Age category 65+ was omitted from reporting as n = 6. (N = 537)

## 7. KEY FINDINGS

### MANAGING PATIENT FILES

99,7% of pharmacists in our sample used a **software package** to manage the patient file.

### USE OF EHEALTH SERVICES

The **most used** ehealth services are:

- Chapter IV (90,8%)
- Recip-e (83,2%)
- MyCarenet (80,2%)
- Shared pharmaceutical file (77,4%)
- AssurPharma (75,3%)

The **least used** eHealth services are:

- PharmaFormulary\* (7,5% of hospital pharmacists used it)
- UPPAD (7,7%)
- Vaccinnet/e-vax (10,7%)

\*eHealth service only available for pharmacists working in a hospital pharmacy

The eHealth services with the **highest frequency of use** are:

- MyCareNet (93,7% of pharmacists used it daily)
- Recip-e (87,8% of pharmacists used it daily)
- Chapter IV (84% of pharmacists used it daily)

The **least known** eHealth services are:

- UPPAD (73,5% of pharmacists had not heard of it)
- RAOTD (30,8% of pharmacists had not heard of it)
- PharmaFormulary\* (55,5% of hospital pharmacists had not heard of it)

\*eHealth service only available for pharmacists working in a hospital pharmacy

For each of these three services, more than 2 out of 3 pharmacists indicated they would like to use them.

### SATISFACTION WITH EHEALTH SERVICES

eHealth services with the **highest rate of satisfaction**:

- AssurPharma (75,5% of pharmacists were (very) satisfied)
- Shared pharmaceutical File (71,7% of pharmacists were (very) satisfied)
- MyCareNet (57,5% of pharmacists were (very) satisfied)

eHealth services with the **highest rate of dissatisfaction**:

- Vaccinnet/e-vax (37,5% of pharmacists were (very) dissatisfied)
- PharmaFormulary (33,3% of pharmacists were (very) dissatisfied)
- Digital Medication Schedule (31,2% of pharmacists were (very) dissatisfied)

### NEED FOR SUPPORT WITH THE USE OF EHEALTH SERVICES

Around 45% of pharmacists expressed the need for support with the use of eHealth services.

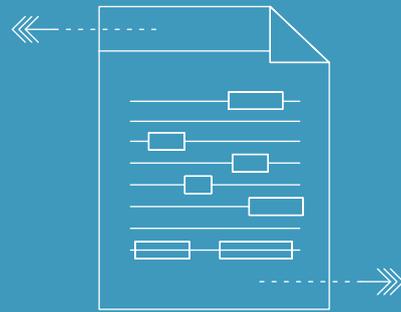
- **Additional** training regarding the use of eHealth services (52,8%)
- Supporting materials to better **inform patients** about the use of eHealth services (43,7%)
- Supporting materials for the **use of eHealth services in their daily job** (40%)

### GENERAL ATTITUDE TOWARDS THE USE OF DIGITAL APPLICATIONS:

- The majority of pharmacists (61,2%) **trust** digital applications
- 17,1% of pharmacists feel **resistance** when it comes to using digital applications
- 38,3% of pharmacists found the use of digital tools in decision making, that use **AI** to make suggestions, **desirable**

CHAPTER 03

# EXCHANGE OF HEALTH DATA AMONGST HEALTHCARE PROFESSIONALS



# EXCHANGE OF HEALTH DATA AMONGST HEALTHCARE PROFESSIONALS

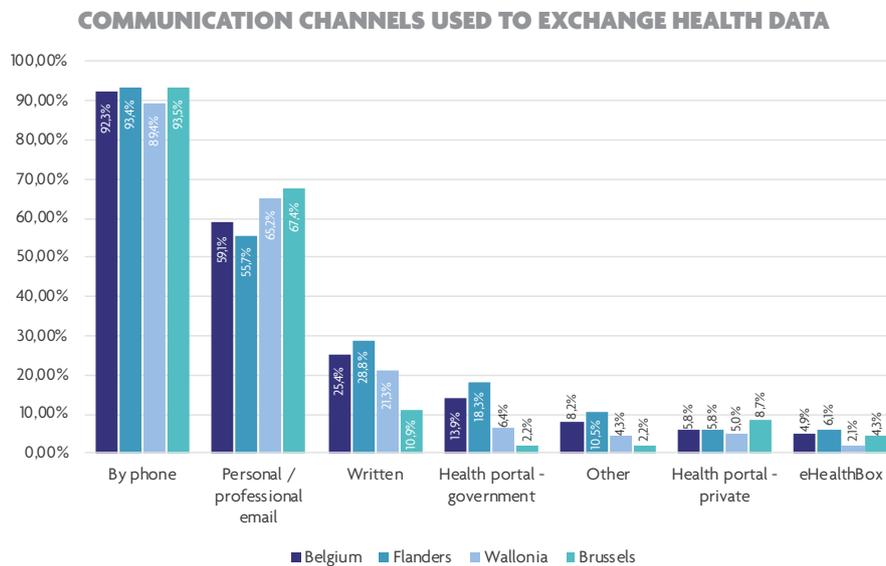
In this part of the report we will focus on the **communication channels** pharmacists use to **exchange health data** with other healthcare professionals and/or healthcare institutions and their satisfaction with the **offer of digital communication channels** that are available for their profession.

## 1. COMMUNICATION CHANNELS USED TO EXCHANGE HEALTH DATA

In general, pharmacists in our sample mostly exchanged health data with other healthcare professionals by **phone** (92,3%), via their **personal/professional email** (59,1%) and via **written communication (paper)** (25,4%). The **eHealthbox** was the least used method (4,9%).

Our results showed some regional differences:

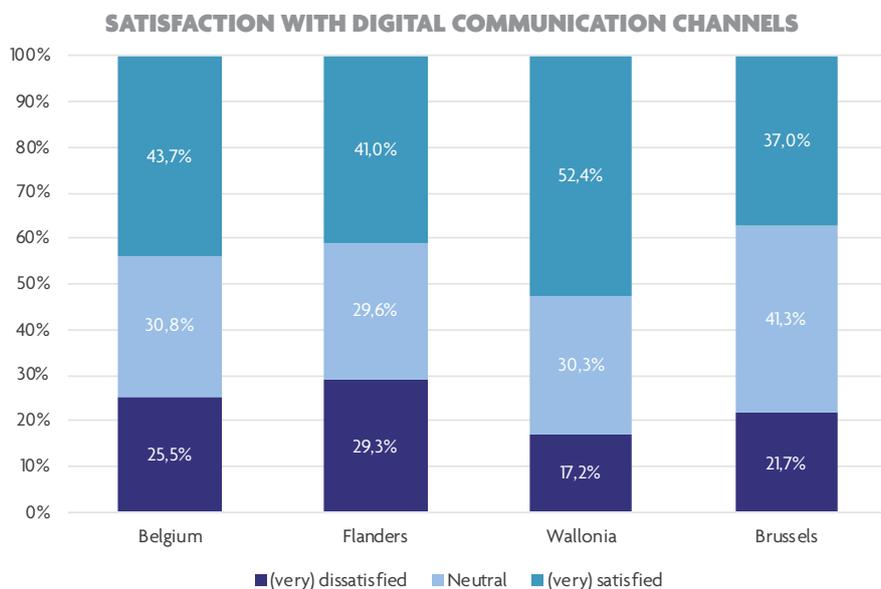
- A lower percentage of pharmacists in Brussels (10,9%) used **written communication (paper)** and a higher percentage (67,4%) used their **personal/professional email**
- A higher percentage of pharmacists in Flanders (18,3%) used a **government health portal**



Graph 9. How do you exchange health data with other health care professionals/health care institutions? (Multiple choices possible) (N=548)

## 2. SATISFACTION WITH DIGITAL COMMUNICATION CHANNELS

Just over 40% of pharmacists in our sample (43,7%) are **(very) satisfied** with the offer of **digital communication channels** that are available for their profession. Our results showed that a higher percentage of pharmacists in Wallonia (52,4%) are **(very) satisfied** with the offer of digital communication channels.



Graph 10. How satisfied are you with the offer of digital communication channels that are available for your profession? (N=548)

Exploration with other variables showed that the **type of communication channels used**, and **satisfaction** with the offer of **digital communication channels** varied across levels of **need for support** with the use of eHealth services.

|                         | By phone | Written | eHealthBox | Personal / professional email | Health portal - government | Health portal - private | Other |
|-------------------------|----------|---------|------------|-------------------------------|----------------------------|-------------------------|-------|
| <b>NEED FOR SUPPORT</b> |          |         |            |                               |                            |                         |       |
| Low need                | 94,9%    | 28,0%   | 5,9%       | 62,7%                         | 17,8%                      | 5,1%                    | 15,3% |
| Medium need             | 93,0%    | 23,7%   | 4,3%       | 51,1%                         | 18,8%                      | 5,9%                    | 8,6%  |
| High need               | 90,6%    | 25,4%   | 4,9%       | 63,5%                         | 8,2%                       | 6,1%                    | 4,5%  |

Table 13. How do you exchange health data with other health care professionals/health care institutions? (Multiple choices possible) (N=548)

|                         | Very dissatisfied | Dissatisfied | Neutral | Satisfied | Very satisfied |
|-------------------------|-------------------|--------------|---------|-----------|----------------|
| <b>NEED FOR SUPPORT</b> |                   |              |         |           |                |
| Low need                | 16,9%             | 35,6%        | 34,7%   | 12,7%     | 0,0%           |
| Medium need             | 8,1%              | 34,9%        | 44,1%   | 12,9%     | 0,0%           |
| High need               | 5,3%              | 32,8%        | 47,1%   | 13,9%     | 0,8%           |

Table 14. How satisfied are you with the offer of digital communication channels that are available for your profession? (N=548)

## 3. KEY FINDINGS

### COMMUNICATION CHANNELS USED TO EXCHANGE HEALTH DATA

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

- Phone (92,3%)
- Personal/professional e-mail (59,1%)
- Written communication (paper) (25,4%)

The **eHealthBox** is the least used method (4,9%)

### SATISFACTION WITH DIGITAL COMMUNICATION CHANNELS

43,7% of pharmacists are **(very) satisfied** with the offer of **digital communication channels** that are available for their profession.

CHAPTER 04

# ONLINE COMMUNICATION WITH PATIENTS

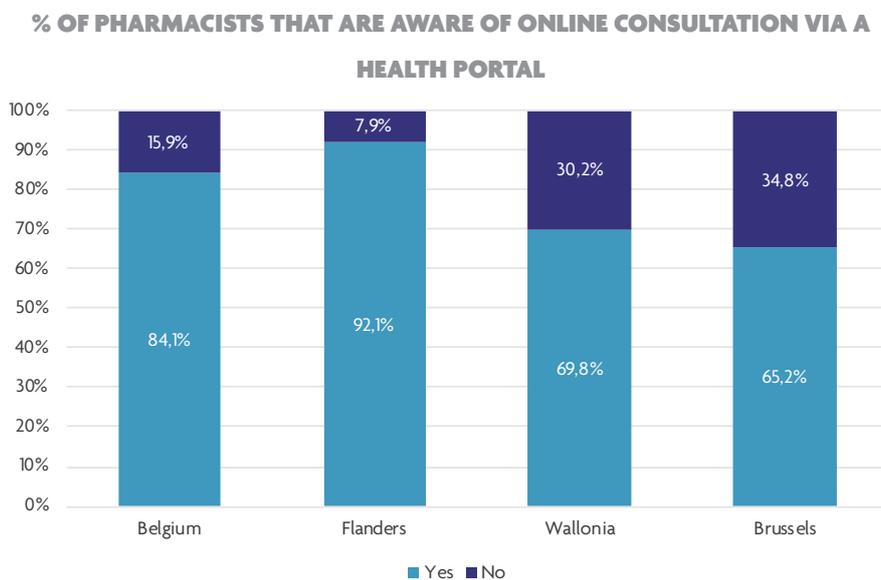


# ONLINE COMMUNICATION WITH PATIENTS

In this part of the report we will focus on different forms of online communication between pharmacists 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 pharmacists towards **online communication** with patients (e.g. asking questions online).

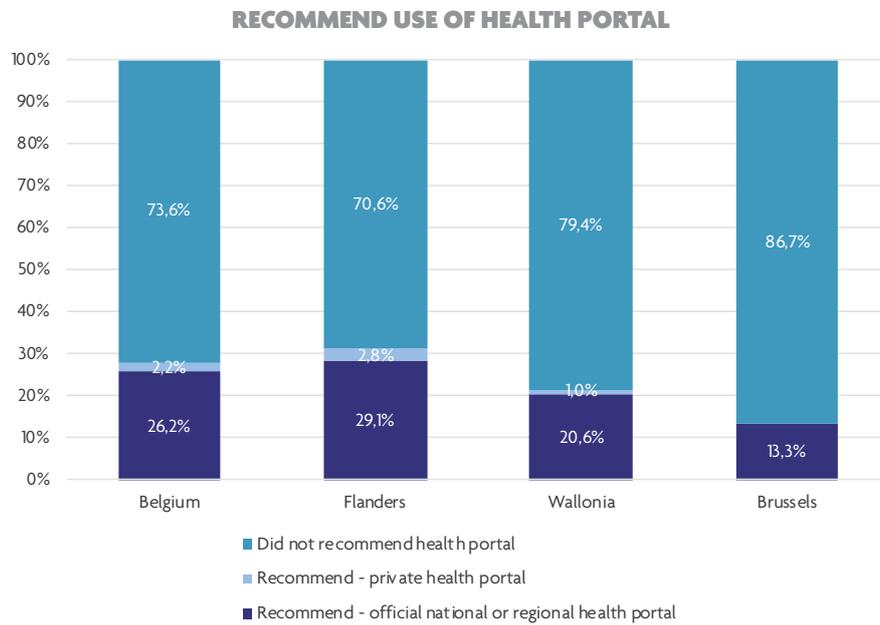
## 1. ONLINE CONSULTATION

Patients can use a health portal to consult their personal health data online. The vast majority of pharmacists in our sample (84,1%) were **aware** that patients can view their personal health data via a health portal. Our results showed that a higher percentage of pharmacists in Flanders (92,1%) were aware that patients can view their personal health data via a health portal.



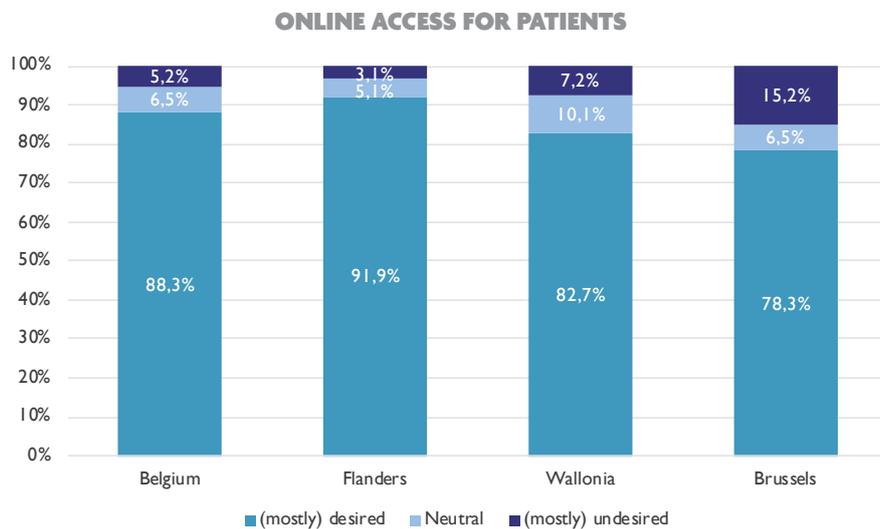
Graph 11. Did you know, before answering this questionnaire, that patients can view their personal health data through a health portal? (N=540)

On average, just under 30% of pharmacists (28,4%) **recommended** one or more of their patients to use a health portal to consult their personal health data: 26,2% recommended the use of an **official national or regional health portal** and 2,2% recommended the use of a **private health portal**. The vast majority of pharmacists (73,6%) did not recommend the use of a health portal. Recommendation rates were the highest in Flanders (31,9%) and Wallonia (21,6%).



Graph 12. In the past year (October 2018 - September 2019), did you recommend to one or more of your patients to consult their personal health data online? (Multiple choices possible) (N=454)

88,3% of pharmacists in our sample find it **(mostly) desirable** that patients have online access to their personal health data through a health portal. 5,2% find it (mostly) undesirable, and 6,5% is neutral. Our results showed that a higher percentage of pharmacists in Brussels (15,2%) find online access for patients (mostly) undesirable.



Graph 13. What is your opinion on patients consulting their personal health data, kept by a healthcare professional, online through a health portal? (N=540)

## 2. RESPONSIBILITIES HEALTH PORTAL AWARENESS

Pharmacists 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 pharmacist believe the **government** is the main responsible party to:

- **Inform** patients about 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 patients **use** this health portal to consult their personal health data.

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

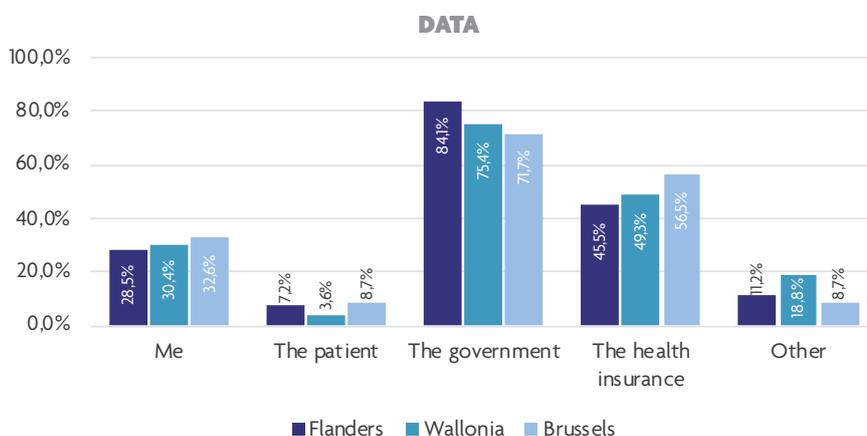
|   | Me    | The patient | The government | The public health insurance company | Other |
|---|-------|-------------|----------------|-------------------------------------|-------|
| TASK  |       |             |                |                                     |       |
| Informing patients about the existence of a health portal with their personal health data | 37,3% | 5,6%        | 85,3%          | 49,2%                               | 15,4% |
| Explaining patients how they can consult their personal health data on this health portal | 29,4% | 6,4%        | 80,8%          | 47,5%                               | 13,0% |
| Ensuring that patients understand the health-related information on this health portal    | 60,1% | 8,3%        | 48,6%          | 32,6%                               | 25,2% |
| Ensuring that patients use this health portal to consult their personal health data       | 31,8% | 20,9%       | 66,5%          | 42,2%                               | 17,3% |

Table 15. According to you, who is mainly responsible for the following tasks? (Multiple choices possible) (N=531)

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

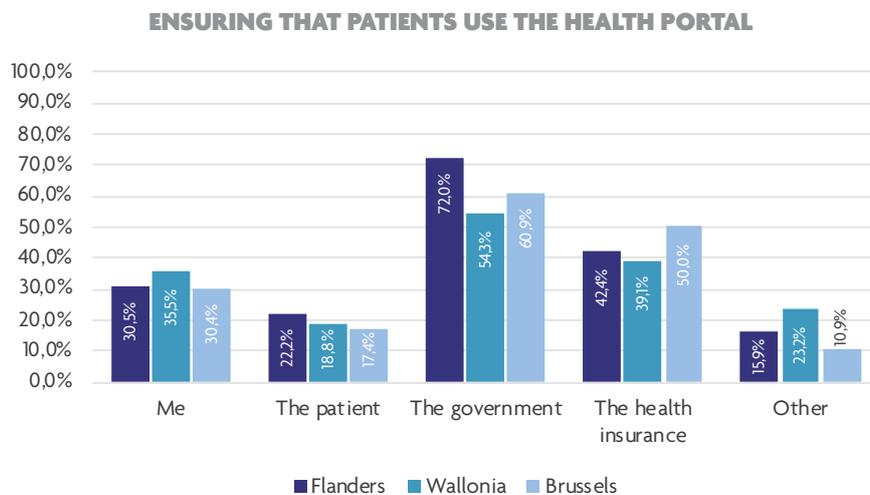
- **Explaining patients how they can consult their personal health data on this health portal.** In Flanders, a higher percentage of pharmacists (84,1%) selected the government as the main responsible party. Pharmacists in Brussels (56,5%) selected the public health insurance company more often.

### EXPLAINING PATIENTS HOW THEY CAN CONSULT THEIR PERSONAL HEALTH DATA



Graph 14. According to you, who is mainly responsible for explaining patients how they can consult their personal health data on this health portal? (Multiple choices possible) (N=531)

- **Ensuring that patients use this health portal to consult their personal health data.** A higher percentage of pharmacists in Flanders (72,0%) selected the government as the main responsible party. In Brussels, a higher percentage of pharmacists (50,0%) selected the public health insurance company as the main responsible party.



Graph 15. According to you, who is mainly responsible to ensure patients use this health portal to consult their personal health data? (Multiple choices possible) (N=531)

Further exploration with other variables revealed that **gender, age** and **need for support** with the use of eHealth services have an impact on some of the **perceived responsibilities**.

| TASK   | SEX    | The public health insurance company |             |                |                                     |       |
|--|--------|-------------------------------------|-------------|----------------|-------------------------------------|-------|
|  |        | Me                                  | The patient | The government | The public health insurance company | Other |
| Ensuring that patients understand the health-related information on this health portal | Male   | 59,7%                               | 9,9%        | 58,6%          | 27,1%                               | 19,3% |
|  | Female | 60,5%                               | 7,4%        | 43,3%          | 35,5%                               | 28,1% |
| Ensuring that patients use this health portal to consult their personal health data    | Male   | 29,8%                               | 22,1%       | 74,6%          | 37,0%                               | 10,5% |
|  | Female | 33,0%                               | 20,1%       | 62,5%          | 45,0%                               | 20,9% |

Table 16. According to you, who is mainly responsible for the following tasks? (Multiple choices possible). For the variable gender, the category 'other' was omitted from reporting, as n = 1. (N = 530)

| TASK  | AGE   | Who is mainly responsible for the following tasks? |             |                |                                     |       |
|---|-------|--|-------------|----------------|-------------------------------------|-------|
|   |       | 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 | < 25  | 41,7%  | 0,0%        | 66,7%          | 50,0%                               | 33,3% |
|   | 25-34 | 36,8%  | 7,3%        | 88,1%          | 52,3%                               | 17,6% |
|   | 35-44 | 37,7%  | 4,6%        | 89,2%          | 49,2%                               | 16,9% |
|   | 45-54 | 37,3%  | 3,2%        | 80,2%          | 47,6%                               | 11,1% |
|   | 55-64 | 34,4%  | 6,3%        | 82,8%          | 40,6%                               | 9,4%  |
| Explaining patients how they can consult their personal health data on this health portal | < 25  | 33,3%  | 0,0%        | 58,3%          | 41,7%                               | 0,0%  |
|   | 25-34 | 28,0%  | 7,3%        | 83,4%          | 49,7%                               | 15,5% |
|   | 35-44 | 31,5%  | 6,9%        | 84,6%          | 48,5%                               | 16,2% |
|   | 45-54 | 29,4%  | 3,2%        | 77,8%          | 44,4%                               | 8,7%  |
|   | 55-64 | 25,0%  | 9,4%        | 76,6%          | 43,8%                               | 7,8%  |
| Ensuring that patients understand the health-related information on this health portal    | < 25  | 66,7%  | 0,0%        | 41,7%          | 33,3%                               | 16,7% |
|   | 25-34 | 63,7%  | 11,9%       | 42,5%          | 33,2%                               | 32,6% |
|   | 35-44 | 60,0%  | 9,2%        | 53,8%          | 35,4%                               | 21,5% |
|   | 45-54 | 58,7%  | 4,0%        | 49,2%          | 31,7%                               | 19,0% |
|   | 55-64 | 50,0%  | 4,7%        | 57,8%          | 26,6%                               | 23,4% |
| Ensuring that patients use this health portal to consult their personal health data       | < 25  | 50,0%  | 16,7%       | 66,7%          | 33,3%                               | 8,3%  |
|   | 25-34 | 28,0%  | 25,9%       | 63,7%          | 42,5%                               | 18,1% |
|   | 35-44 | 30,0%  | 26,9%       | 68,5%          | 42,3%                               | 19,2% |
|   | 45-54 | 36,5%  | 11,9%       | 68,3%          | 42,1%                               | 14,3% |
|   | 55-64 | 31,3%  | 12,5%       | 67,2%          | 40,6%                               | 17,2% |

Table 17. According to you, who is mainly responsible for the following tasks? (Multiple choices possible) \*Category 65+ was omitted from reporting as n = 6. (N = 525)

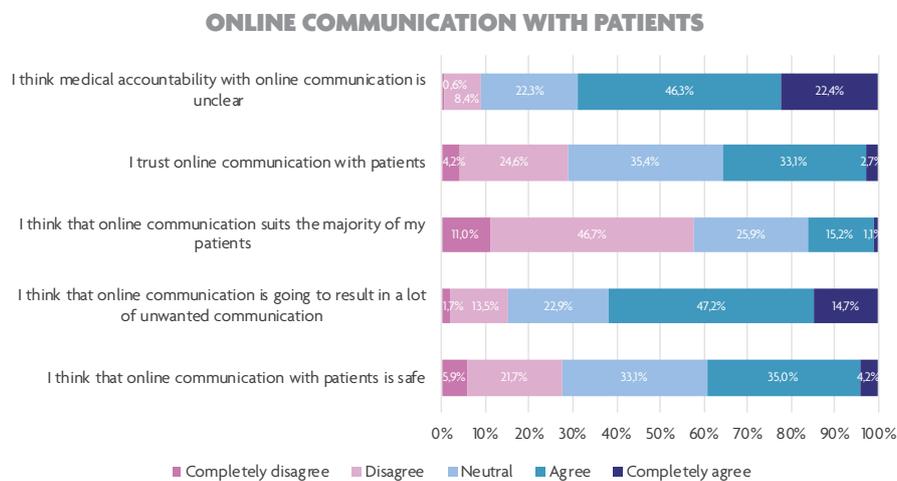
| TASK  | NEED FOR SUPPORT | Who is mainly responsible for the following tasks? |             |                |                                     |       |
|---|------------------|--|-------------|----------------|-------------------------------------|-------|
|   |                  | Me   | The patient | The government | The public health insurance company | Other |
| Informing patients about the existence of a health portal with their personal health data | Low need         | 25,9%  | 4,3%        | 89,7%          | 43,1%                               | 11,2% |
|   | Medium need      | 34,8%  | 6,7%        | 86,0%          | 47,8%                               | 11,2% |
|   | High need        | 44,7%  | 5,5%        | 82,7%          | 53,2%                               | 20,7% |
| Explaining patients how they can consult their personal health data on this health portal | Low need         | 18,1%  | 5,2%        | 87,9%          | 37,9%                               | 9,5%  |
|   | Medium need      | 25,3%  | 6,7%        | 83,1%          | 47,2%                               | 9,0%  |
|   | High need        | 38,0%  | 6,8%        | 75,5%          | 52,3%                               | 17,7% |
| Ensuring that patients understand the health-related information on this health portal    | Low need         | 46,6%  | 7,8%        | 50,9%          | 27,6%                               | 25,0% |
|   | Medium need      | 60,1%  | 8,4%        | 50,0%          | 29,8%                               | 21,9% |
|   | High need        | 66,7%  | 8,4%        | 46,4%          | 37,1%                               | 27,8% |
| Ensuring that patients use this health portal to consult their personal health data       | Low need         | 16,4%  | 19,8%       | 70,7%          | 36,2%                               | 14,7% |
|   | Medium need      | 31,5%  | 24,7%       | 66,9%          | 44,4%                               | 14,0% |
|   | High need        | 39,7%  | 18,6%       | 64,1%          | 43,5%                               | 21,1% |

Table 18. According to you, who is mainly responsible for the following tasks? (Multiple choices possible) (N = 531)

### 3. ATTITUDE TOWARDS ONLINE COMMUNICATION WITH PATIENTS

Pharmacists 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:

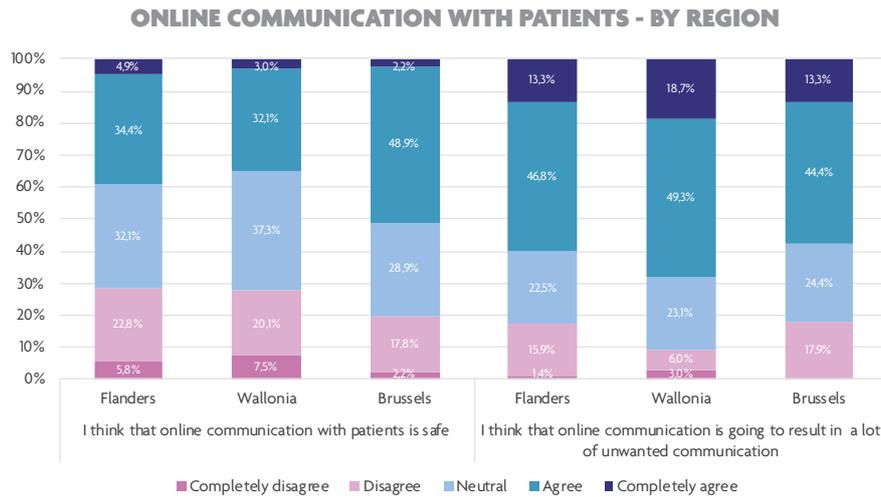
- Almost 7 out of 10 pharmacists in our sample (68,7%) believe that **medical accountability** with online communication is unclear
- The majority of pharmacists (61,9%) think that online communication is going to result in a **lot of unwanted communication**.
- 57,7% of pharmacists believe that online communication **does not suit the majority of their patients**.
- Just under 30% of pharmacists (28,8%) do not **trust** online communication with patients
- Over one in four pharmacists (27,6%) do not think that online communication with patients is **safe**.



Graph 16. To what extent do you agree or disagree with following statements regarding online communication with patients (e.g. asking questions online)? (N=525)

Our results showed some regional differences in the attitude towards online communication:

- A higher percentage of pharmacists in Brussels (51,1%) believe that online communication with patients is **safe**
- A higher percentage of pharmacists in Wallonia (68%) think that online communication will result in a **lot of unwanted communication**



Graph 17. To what extent do you agree or disagree with following statements regarding online communication with patients (e.g. asking questions online)? (N=525)

Exploration with other variables revealed that the **attitude towards online communication** with patients varied with **age**.

| STATEMENT | AGE   | Completely disagree   | Disagree | Neutral | Agree | Completely agree |
|-----------|-------|---|----------|---------|-------|------------------|
|           |       | I think online communication will result in a lot of unwanted communication | < 25     | 0,0%    | 25,0% | 50,0%            |
|           | 25-34 | 1,1%  | 19,5%    | 21,1%   | 45,3% | 13,2%            |
|           | 35-44 | 0,8%  | 10,8%    | 22,3%   | 49,2% | 16,9%            |
|           | 45-54 | 4,8%  | 9,7%     | 25,0%   | 47,6% | 12,9%            |
|           | 55-64 | 0,0%  | 4,8%     | 19,0%   | 55,6% | 20,6%            |

Table 19. To what extent do you agree or disagree with following statements regarding online communication with patients (e.g asking questions online)? \*Category 65+ was omitted from reporting as n = 6. (N = 519.)

## 4. KEY FINDINGS

### ONLINE CONSULTATION

The vast majority of pharmacists in our sample (84,1%) were **aware** that patients can view their personal health data via a health portal.

- 28,4% of pharmacists **recommended** one or more of their patients to use a health portal to consult their personal health data
- 88,3% of pharmacists find it **(mostly) desirable** that patients have access to their personal health data online via a health portal

### RESPONSIBILITIES EHEALTH PORTAL AWARENESS

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

- **Inform** patients about 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 patients **use** this health portal to consult their personal health data

Pharmacists 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:

- 68,7% of pharmacists in our sample believe that **medical accountability** with online communication is unclear
- The majority of pharmacists (61,9%) believe that online communication is going to result in a **lot of unwanted communication**
- 57,7% of pharmacists believe that online communication **does not suit the majority of their patients**
- 28,8% of pharmacists do not **trust** online communication with patients
- 27,6% of pharmacists do not think that online communication with patients is **safe**

CHAPTER 05

# SELF MANAGEMENT AND ONLINE TREATMENT



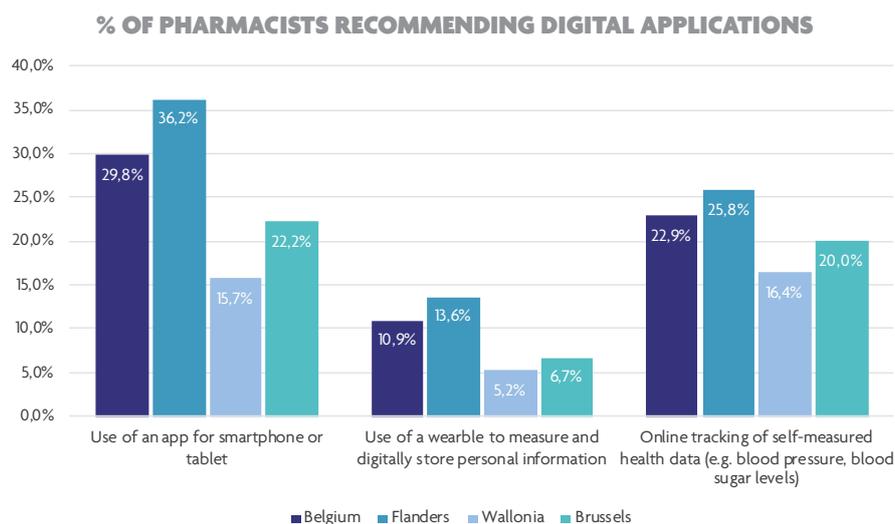
# SELF MANAGEMENT AND ONLINE TREATMENT

In this part of the report we will focus on the use of digital applications for health purposes.

## 1. USE OF DIGITAL APPLICATIONS FOR HEALTH PURPOSES

A minority of pharmacists in our sample recommended the use of digital applications for health purposes. The use of a **health-related app for smartphone or tablet** (29,8%) and **online tracking of self-measured health data** (22,9%) were recommended more frequently than the use of a **wearable** (10,9%).

Our results showed that a higher percentage of pharmacists in Flanders (36,2%) recommended the use of a health-related app for smartphone or tablet.



Graph 18. In the past year (October 2018 - September 2019), have you recommended your patients to use the following options regarding their health? (N=524)

Further exploration of these results revealed a relationship between the **need for support** with the use of eHealth services and the **recommendation of a health-related app for smartphone or tablet**.

|                         | Yes   | No    |
|-------------------------|-------|-------|
| <b>NEED FOR SUPPORT</b> |       |       |
| Low need                | 37,4% | 62,6% |
| Medium need             | 36,4% | 63,6% |
| High need               | 21,0% | 79,0% |

Table 20. In the past year, have you recommended your patients to use the following options regarding their health? (N=524)

## 2. KEY FINDINGS:

### USE OF DIGITAL APPLICATIONS FOR HEALTH PURPOSES

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

- A **health-related app** for smartphone or tablet (29,8%)
- **Online tracking** of self-measured health data (22,9%)
- The use of a **wearable** (10,9%)

**ANNEX**



# ANNEX

## 1. GENERAL QUALITATIVE FEEDBACK ON EHEALTH

### 1. Technical problems and the reliability of eHealth services and platforms.

In general, pharmacists were **enthusiastic** about the different eHealth services. However, the **technical problems** they experienced made them question the stability and reliability of these services.

Resp 29. “eHealth, Mycarenet,... in theorie heel tof maar in praktijk zijn al deze systemen nog te onstabiel. Er zijn nog al te veel pannes. Zie bijv. 24/10/2019: algemene uitval van de systemen van +/- 4 uur!”

Resp 89. “Pratique quand cela n'est pas en panne! ce qui arrive hélas trop souvent en pharmacie (consultation MyCareNet!)”

Resp 175. “Wat niet aan bod gekomen is in de vragenlijst, is de performance van de systemen. Er zijn nog al te vaak onderbrekingen waardoor we niet kunnen werken zoals het hoort. Dit is een basisvereiste voor verdere ontwikkeling.”

Resp 348. “Il faut surtout améliorer la stabilité, la fiabilité des serveurs . Coupures parfois longues et invalidentes dans notre quotidien.”

Resp 596. “Gelieve bij het opstarten van nieuwe digitale diensten ervoor te zorgen dat deze STEEDS werken. Zodra eHealth om een technisch probleem niet meer werkt, dan zijn wij technisch werkeloos en kunnen niet meer werken alsof we een gewoon voorschrift hebben. Heel vervelend! Is het niet mogelijk om hierop een veiligheid in te bouwen?”

Resp 208. “Avant de pousser plus loin le développement de l'E-santé plus loin, il faudrait s'assurer que ce qui existe actuellement fonctionne correctement (cfr. pannes régulières !!). Ce système DEVRAIT être INFALLIBLE et JAMAIS EN PANNE. Cela est possible, le système bancontact y arrive bien !”

### 2. Communication and exchange of information with other healthcare professionals

Pharmacists expressed the need for **better communication** with **other health care professionals** and a **better exchange of information** between **primary** and **secondary care**.

Resp 445. “Une meilleure communication entre les différents prestataires est indispensable pour le développement de soins plus performants mais nous devons tous accepter un meilleur échange des données.”

Resp 1. “Graag voor ontwikkeling bekijken of communicatie tussen eerste en tweede lijn werkt in systemen. Nu vaak een probleem.”

### 3. Access to eHealth services and information

Pharmacists, in particular hospital pharmacists, expressed the need for access **to more eHealth services** and **information**.

Resp 331. “Impliquer et permettre plus de fonctionnalité pour les pharmaciens et spécialement clinicien qui peuvent apporter une plus value certaine mais qui sont trop souvent oubliés (car peu nombreux).”

Resp 243. “Amélioration de l'accès à l'information dans le programme civars pour les pharmaciens.”

Resp 258. “DPI actuellement non accessible pour nous. Idem pour RSW!”

Resp 187. “Avoir accès au schéma de médication créé par le médecin généraliste ou spécialiste.”

Resp 320. “Het ziekenhuis hinkt erg achterop met al deze technologie...”

Resp 228. “N'oubliez pas les pharmaciens d'hôpitaux ! nous avons aussi besoin d'avoir accès aux plateformes en ligne.”

#### 4. User friendliness of eHealth services and digital applications

Pharmacists mentioned that lack of user friendliness of some of the eHealth services or digital applications made their use more **complicated** and **burdensome**.

Resp 245. “Les rendre plus conviviaux (pratiques et rapides à utiliser). Ne pas oublier de consulter les utilisateurs pour connaître leurs besoins et leurs retours d'expérience. “

Resp 25. “[...] dat ze gebruiksvriendelijk zijn. Vaak zijn de tools veel te omslachtig (bv. e-health attest opzoeken -&gt; beter zou zijn dat we de patiënt opvragen en meteen een overzicht krijgen van alle lopende attesten alsook een historiek ervan)”

Resp 231. “Les outils principalement utilisés en Hôpital sont peu conviviaux et posent souvent problème. Ils n'aident pas à faciliter le travail, au contraire, rendent les tâches plus lourdes.”

Resp 529. “Vitalink is nog heel traag en zou wat gebruiksvriendelijker afgeprint moeten worden.”

#### 5. Other minor themes

- Need for more **support**
- Heavy **administrative burden**
- Compensation and premiums for **all** healthcare professionals
- Impact on the **'human aspect'** of healthcare
- Paperless prescriptions might be a **dangerous** idea
- Need to consider the **different types of patients** (e.g. older adults, foreigners)

