

# POLICY BRIEF #50

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## eHealth after the corona pandemic: is Belgium ready for the paradigm shift?

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The corona pandemic has been a driver of change in many respects. The public health measures imposed to slow the spread of the virus accelerated the implementation of digital technologies across our society. At the frontline of the pandemic, the digitalization of healthcare unfolded at an unprecedented speed. Whereas in the past decades the field of healthcare has been rather slow at adopting eHealth, digital technologies now played a major role in informing the public, limiting physical patient contact, containing the further spread of the virus, and optimizing diagnoses. The Belgian government, for example, accelerated the implementation and renumeration of teleconsults, launched a [website](#) to inform citizens about current public health measures, developed digital Passenger Locator Forms for travellers, made COVID test results available via [health portals](#), and launched the Coronalert tracing app and the CovidSafe app to facilitate travelling within the EU.

**eHealth** refers to the use of digital technologies and the internet to promote health and wellbeing and improve the delivery of healthcare. eHealth is often portrayed as the ideal solution to cope with the many challenges of the current healthcare system. Also, eHealth is expected to offer some important benefits to both citizens and healthcare workers and improve the quality of care, health, and wellbeing. Nevertheless, numerous barriers for the use of eHealth continue to exist. These hamper the widespread adoption and implementation of eHealth and risk to reinforce existing inequalities in healthcare delivery and the access to healthcare.

With the [eHealthmonitor 2019](#), we investigated the use of eHealth within the Belgian healthcare system, from the perspective of citizens and healthcare workers (general practitioners (GPs), specialists, pharmacists, nurses, and nursing assistants). As the data collection took place between September and December 2019, our results reflect the situation prior to the pandemic. To obtain a view on the impact of the COVID-19 sanitary crisis on the use of eHealth, we also conducted several focus group discussions with the different target groups in September 2020.

### Highlights

- Healthcare workers and citizens fear that **not all people will benefit** from the increasing digitalization of healthcare and are concerned that some people might be **denied access to healthcare**.
- Prior to the corona crisis, eHealth was **not yet fully integrated** in Belgian healthcare. Some important barriers remained that might explain the low level of adoption and implementation.
- **Access to digital technologies** and **digital skills** are important preconditions for the use of eHealth. Vulnerable populations are most at **risk of digital exclusion** and less likely to benefit from the advantages of eHealth. Also, **healthcare workers** feel

insufficiently trained to cope with the demands and challenges of an increasingly digitalized healthcare sector.

- **Health literacy** is required to understand and use health-related information to improve health and wellbeing. However, one in three Belgian citizens do not possess the required level of health literacy to make decisions regarding their health and wellbeing.

## 1. Future and challenges for eHealth in the post-corona era

The long-expected end of the corona pandemic will be an important **turning point** with regards to the future of eHealth. Will we finally see the long-expected paradigm shift in healthcare delivery from mainly face-to-face contact to the sustainable adoption and implementation of eHealth? Based on the results from the *eHealthmonitor 2019*, we identified some important challenges with regards to the future of eHealth.

Both citizens and healthcare workers were concerned that the increased digitalization of healthcare might lead to a **healthcare system at two speeds**. People who possess the necessary resources, skills and motivation can take an active role in managing their health and wellbeing, whereas others might be left out and denied access to healthcare.

*“Andere visie sinds corona. Iedereen is meer verplicht om het te gebruiken, maar ik merk dat er veel mensen zijn die er moeite mee hebben”* (Citizens, Flanders)

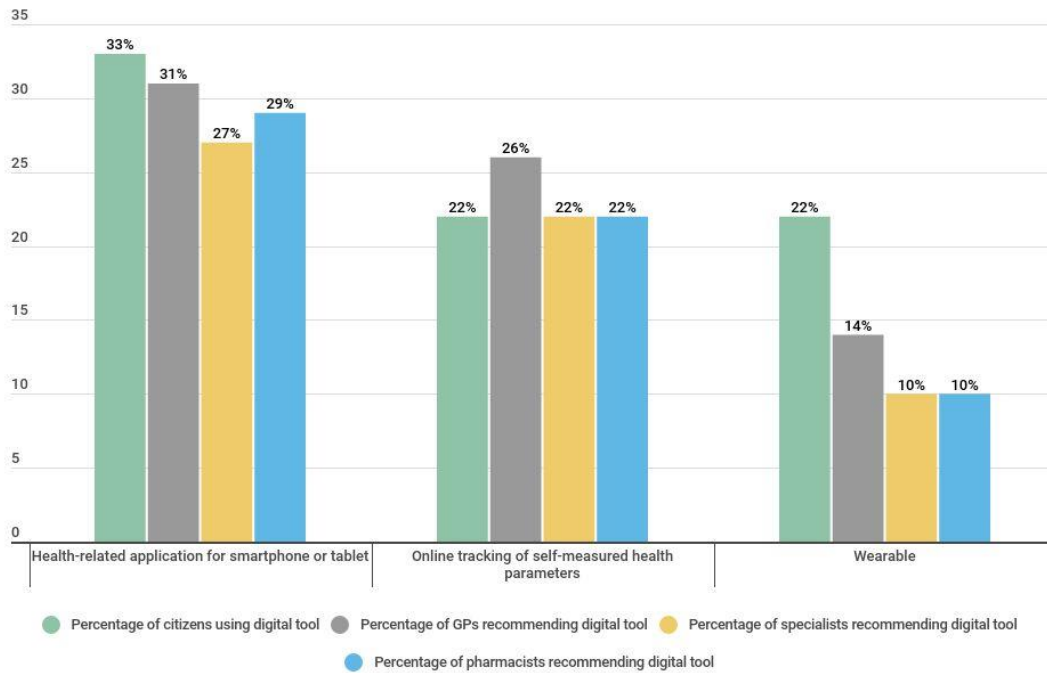
Several healthcare workers were also worried about **healthcare workers** who do not possess the required digital skills to make optimal use of eHealth.

*“Oui, il y a plein de médecins qui ne savent pas encore comment ça fonctionne et il faut qu'on leur explique”* (GPs, Brussels)

Therefore, the major question regarding the future of eHealth in the post-corona era is not whether eHealth will become an integral part of Belgian healthcare, but rather **if we are ready for the digital revolution in healthcare and who is at risk of being excluded from the benefits of eHealth and, even more problematic, from healthcare in general?** Based on the results of the *eHealthmonitor 2019*, the *Barometer Digitale Inclusie* and the available Belgian data on health literacy, we will provide some first insights into this topic.

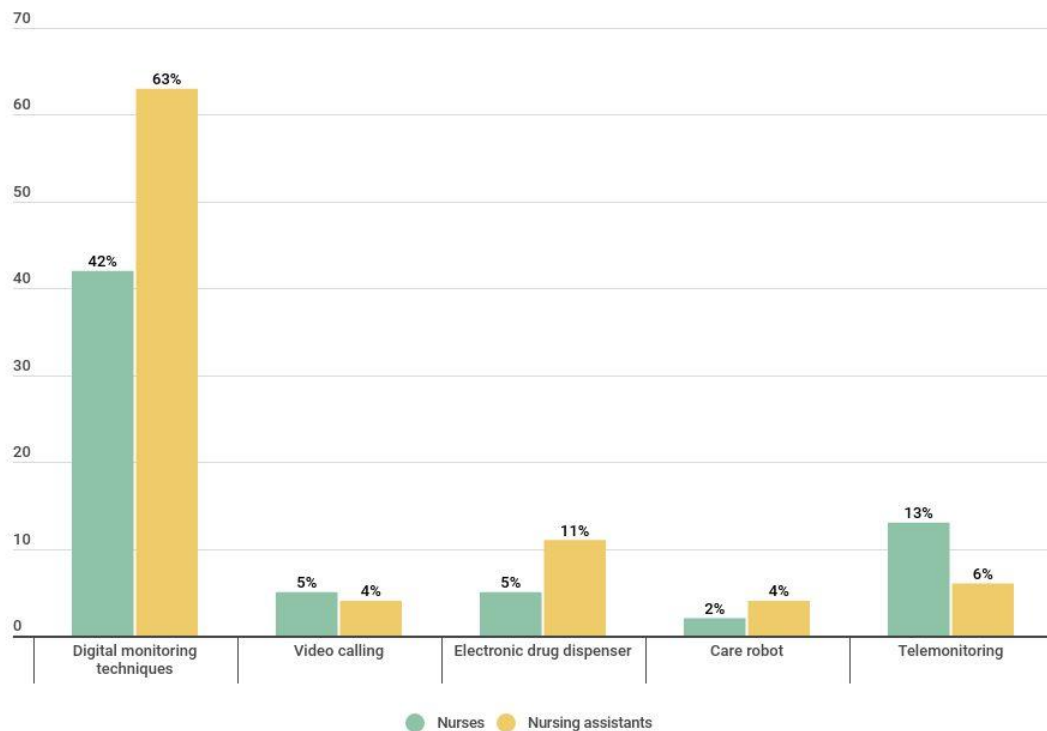
## 2. Use of eHealth in Belgium

Results from the *eHealthmonitor 2019* indicated that, prior to the corona crisis, digital technologies were not yet fully integrated in Belgian healthcare. Less than one in three GPs, specialists and pharmacists recommended the use of digital tools for health purposes. A similar result was found for Belgian citizens.



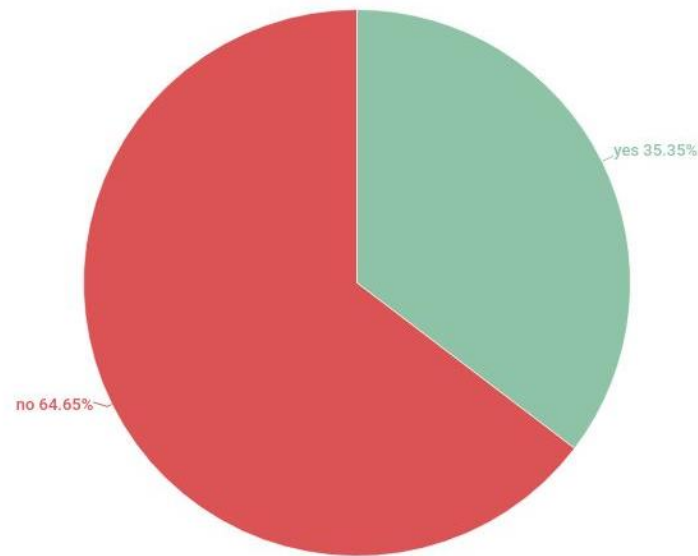
Graph 1: Use of digital tools for health purposes by citizens (N=3746) and percentage of GPs (N=675), specialists (N=802) and pharmacists (N=524) recommending the use of digital tools for health purposes.

If we look at the use of digital tools in patient care, we found that over 60% of nursing assistants and more than 40% of nurses used digital monitoring techniques (e.g. movement sensors, a personal alarm, an interactive buzzer system, electronic bed pads, video and/or audio surveillance). Only a minority used telemonitoring, an electronic drug dispenser, video calling or a care robot.



Graph 2: Use of digital tools for patient care by nurses (N=747) and nursing assistants (N=73).

About one in three citizens used one of the official national or regional health portals (Mijngezondheid/Masanté, MyHealthViewer, CoZo, Brussels Gezondheidsnetwerk/Réseau Santé Bruxellois, Réseau Santé Wallon) to consult the personal health data that is available to them.



Graph 3: Percentage of Belgian citizens that used an official national or regional health portal to consult their personal health data (N=4356).

These results clearly illustrate the existing gap between the potential of eHealth and its actual adoption and implementation in healthcare. Results from our focus group discussions revealed some important barriers for the use of eHealth amongst healthcare workers and citizens. For **healthcare workers**, these include:

- the lack of information on eHealth services,
- the lack of interoperability between the different eHealth services and applications,
- poor user friendliness,
- technical issues,
- the lack of remuneration for the use of eHealth.

**Citizens** unanimously agreed that there is an important lack of information and awareness about the available health portals and their possibilities. Other barriers for the use of eHealth included:

- the complex eHealth landscape,
- lack of a clear overview of personal health data available for online consultation,
- poor user-friendliness,
- technical issues,
- problems with the availability and completeness of personal health data.

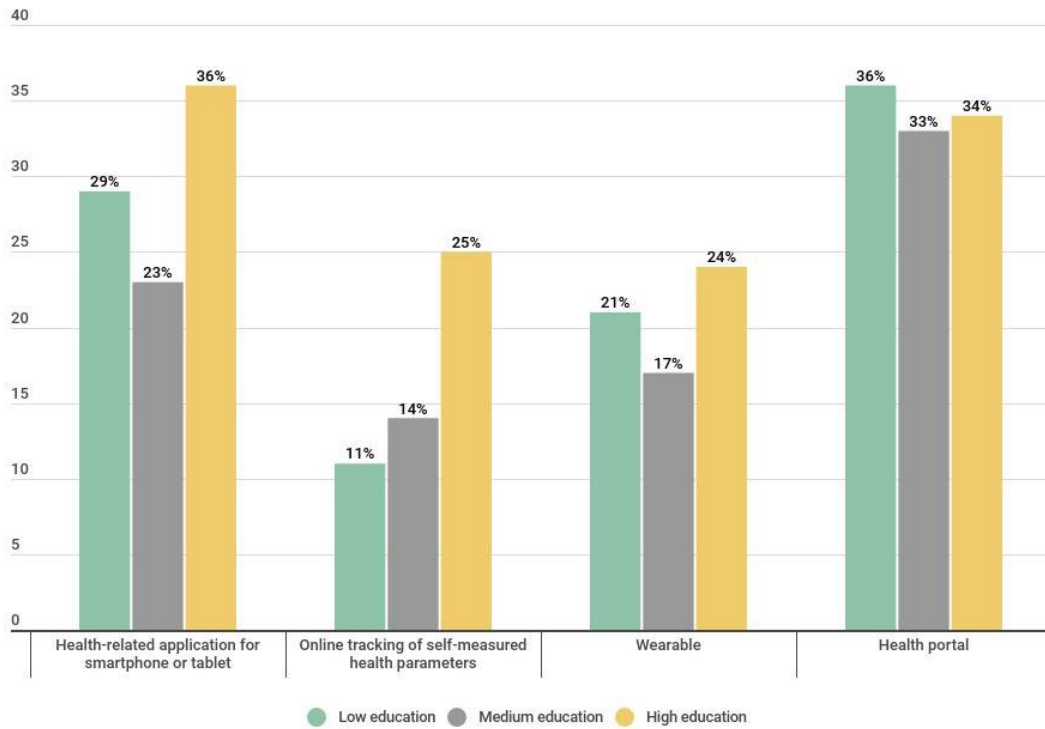
During the corona pandemic, the Belgian government tried to overcome some of these challenges, (e.g., by agreeing on the reimbursement of teleconsults and by informing citizens how to consult their test results online). Nevertheless, one of the most important barriers to the adoption and implementation of eHealth remains, namely that the use of eHealth requires specific resources and competences.

### 3. Access to digital technologies and digital skills

Essential preconditions for the use of eHealth include **access to digital technologies** and possession of the **digital skills** to optimally use them. According to the *Barometer Digitale Inclusie*, 40% of the Belgian population is at risk for digital exclusion, either because they cannot use or access the internet (8%) or because they lack the skills to make optimal use of digital technologies (32%). A closer look at these results reveals that the most vulnerable populations are most at risk. Three out of four people with a monthly income below 1200 € and low education level risk to be left behind by increasing digitalization. However, the risk of digital exclusion is

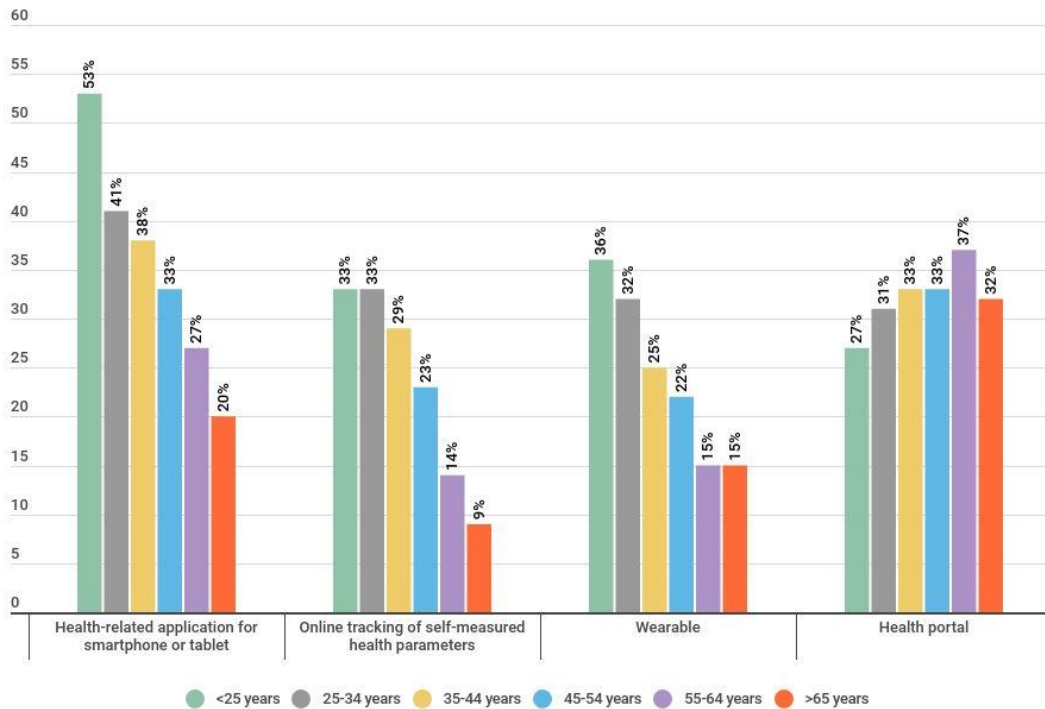
not limited to the ‘traditional’ socioeconomic vulnerable populations but can also affect highly educated or young people. These inequalities in access to digital technologies and skills translate into inequalities in access to essential digital services. For example, people with a low education level and people younger than 25 or older than 54 years old are less likely to use eHealth services and technologies.

The results of the *eHealthmonitor 2019* revealed important differences in the use of digital tools for health purposes correlated with education level and age of participants. These results need to be interpreted with care as the surveys were conducted exclusively online. Therefore, our sample consisted of people who are already connected to the internet. Also, citizens with a high education level were largely overrepresented.



Graph 4: Use of digital health tools for health purposes (N=3746) and official national and regional health portals (N=4356) by Belgian citizens, according to the level of education

In general, the use of digital tools for health purposes was higher amongst younger participants and participants with a higher education level. However, we noticed a different trend in the use of health portals. The use of health portals was the highest amongst citizens with a low education level and the lowest amongst citizens under 25 years old.

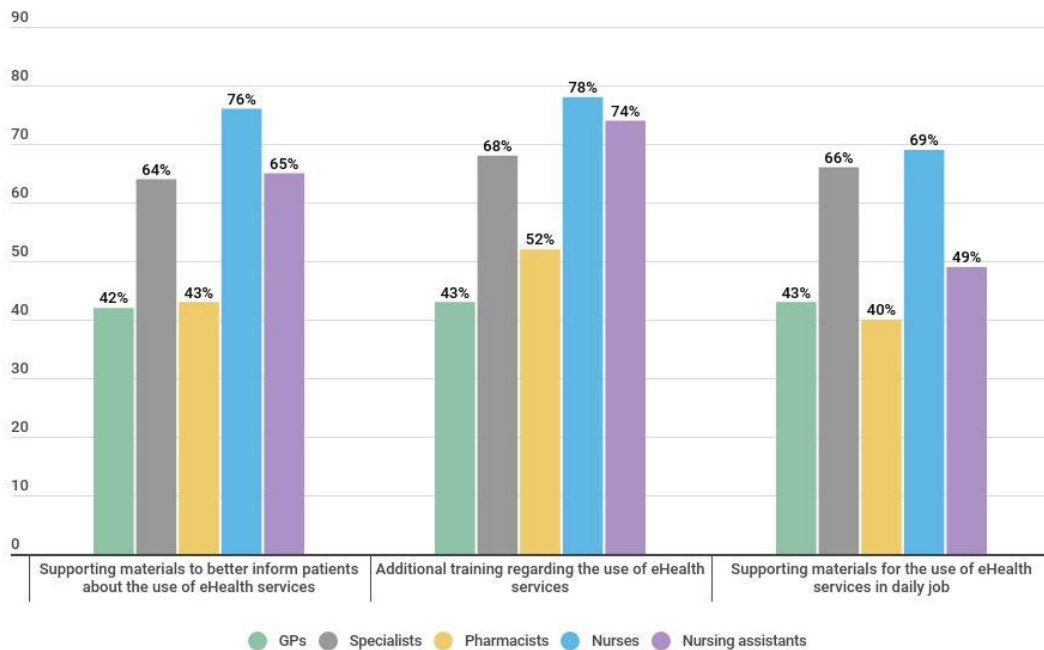


Graph 5: Use of digital health tools for health purposes (N=3746) and official national and regional health portals (N=4356) according to age

The increased digitalization of healthcare also requires **healthcare workers** to possess the **digital skills** to understand and use eHealth services, applications, and technologies and to cope with their changing role from delivering face-to-face care to assisting and supporting patients with the use of eHealth. So far little to no efforts have been made to integrate eHealth into the curriculum of future healthcare workers and continuous workplace education programs. A survey amongst European healthcare workers revealed that 60% received no digital skills training during their education and more than 80% find the current offer of digital skills training to be insufficient<sup>1</sup>. Consequently, most European healthcare workers do not feel sufficiently trained to cope with the increased digitalization of healthcare its challenges.

In the *eHealthmonitor 2019*, a considerable number of healthcare workers expressed the need for support with the use of eHealth services. In general, GPs and pharmacists indicated a lower need for support compared to specialists, nurses, and nursing assistants.

<sup>1</sup> Committee on Digital Skills for Health Professionals. (2016). *Digital skills for health professionals*. Brussels: European Health Parliament



Graph 6: Need for support with the use of eHealth services for GPs (N=698), specialists (N=854), pharmacists (N=552), nurses (N=838) and nursing assistants (N=87).

During the focus group discussions, healthcare workers asked for clear and understandable training materials, adapted to their level of digital skills and needs.

*"J'ai parcouru les formations e-santé. Je n'ai rien pu utiliser dans le matériel qu'on m'a présenté, pour moi c'est du chinois, c'est une approche très compliquée, nous avons besoin d'une approche de terrain."* (Nurses, Wallonia)

Access to digital technologies and digital skills are, however, not sufficient to benefit from eHealth. People should also be able to interpret the information and personal health data they consult or measure. This is where health literacy comes in place.

#### 4. The importance of health literacy

**Health literacy** refers to the skills to find, access, understand and apply health-related information to make decisions regarding health and wellbeing to maintain or improve the current quality of life. In Belgium, one in three citizens aged 15 years and older do not possess the necessary skills to make decisions regarding their health and wellbeing. Especially women, older people, people with a low education level and those with poor health have a low health literacy.

Results from the *eHealthmonitor 2019* indicated that 83% of Belgian citizens would like access to a website, validated by healthcare professionals, to help them understand their personal health data. Also, during the focus group interviews citizens mentioned that the data that is available for online consultation is not always understandable.

*"Begrijp ook een deel van de info niet. Er zijn afkortingen die gebruikt worden die ik niet ken. Ik kan er ook niet op klikken om meer uitleg te krijgen, dus ben het overzicht een beetje kwijt."* (Citizens, Flanders)

Given that our sample consisted of more than 70% of highly educated citizens, these findings are remarkable and suggest that health literacy cannot be assumed.

## 5. Final thoughts and recommendations

Based on our findings, we developed the following conclusions and recommendations:

**Adopt a holistic approach to the development, implementation and evaluation of eHealth and consider factors such as access to digital resources and the level of digital skills and health literacy.**

In the development, implementation and evaluation of eHealth, the **access to digital technologies, digital skills and eHealth literacy is too often assumed**. With 40% of the Belgian population at risk of digital exclusion and one in three citizens with low health literacy levels, numerous people risk being excluded not only from the benefits of eHealth but also from healthcare in general.

**Invest in the assessment of digital skills of healthcare workers to develop customized education programs.**

A considerable number of **healthcare workers** feels insufficiently trained to cope with the increasing digitalization of healthcare and their changing role. They clearly expressed the need for additional training, by integrating eHealth into the curriculum of future healthcare workers and by providing continuous training and education programs at their workplace. Nevertheless, if we want to educate and train future and current healthcare workers to use eHealth *“in an effective, responsible, and ethical way with the interest of the patient at the centre”*<sup>2</sup>, we first need to get a good view of their current level of digital skills.

**When looking at the future of eHealth, look beyond the use of eHealth services and applications.**

Data on access to digital resources, digital skills and health literacy are key to get a true understanding of emerging trends in the use of eHealth. Also, they provide an insight into the people that are at risk of being excluded from eHealth and healthcare in general. Policy makers, researchers and developers of eHealth applications can use this information to develop measures that ensure that all people, regardless of their level of digital skills and eHealth literacy, can have access to and benefit from the advantages of eHealth.

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*To view the reports of the **eHealthmonitor 2019**, click [here](#)*

*To view the results of the **Barometer Digitale Inclusie 2020**, click [here](#)*



*This research was conducted within the **Data & Society Programme** of imec-SMIT, Vrije Universiteit Brussel. The Data & Society programme is headed by Prof. Dr. An Jacobs ([an.jacobs@vub.be](mailto:an.jacobs@vub.be)).*

<sup>2</sup> Committee on Digital Skills for Health Professionals. (2016). *Digital skills for health professionals*. Brussels: European Health Parliament, p.3