INCISIVE HEALTH INTERNATIONAL

Taking the pulse of eHealth in the EU

An analysis of public attitudes to eHealth issues in Austria, Bulgaria, Estonia, France, Germany, Italy, and the UK

December 2017

Foreword

Digital innovation in healthcare is one of the 'hot' topics in European Union (EU) health policy. Frequently portrayed as the key to revamp European healthcare systems, it has been a hub of EU policy activity and debate in 2017 – a trend that is expected to continue as the EU plans to take further steps to trigger more research and investment in eHealth.

The current drive for digital innovation in healthcare is also reflected in consumers' growing appetite for eHealth services. However, barriers to digital healthcare solutions remain high. Understanding these barriers and the mechanisms through which they can be addressed is essential in order to make an incisive impact. In a noisy policy environment, simply calling for more investment and more digital innovation will not be enough.
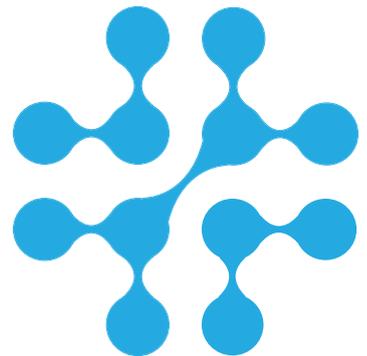
As Incisive Health continues to expand its presence in the international health policy and communications space, we wanted to take the pulse of public attitudes to eHealth in the EU.

This report showcases the findings from exclusive polling undertaken in seven EU countries: Austria, Bulgaria, Estonia, France, Germany, Italy, and the UK. It shows that public attitudes towards eHealth are mixed and while some healthcare systems are embracing new technologies, others are well behind. It reveals some common trends but also some striking differences, providing important insights into what is needed in order to shape eHealth policy in Europe.

We hope you find it useful. Please do get in touch should you have any questions.
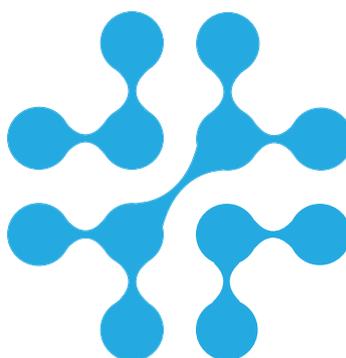
Francesca Scassellati Sforzolini
Managing Director
Incisive Health

francesca.scassellati@incisivehealth.com
Office: +32 (0)2 8953688
Mobile: +32 (0)499 585912

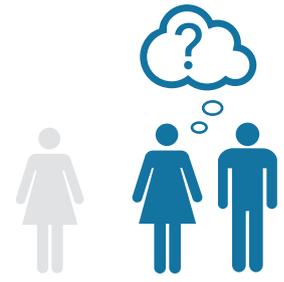# Contents

Attitudes to eHealth in Europe at a glance

Nearly three quarters of people (73%) have never used a health app

Three quarters of people using health apps are 34 years old or younger

60% of people who use health apps do so less than once a week

Almost two thirds of people (63%) who are currently not using a health app would consider using one in the future

People in France are more than twice as likely (40%) to use a health app than people in Germany (18%)

Maintaining a healthy lifestyle is the most common reason why people use a health app

People in Bulgaria use health apps to contact a medical professional more often than people in other European countries

Lack of trust in health app services is one of the key barriers to greater uptake of health apps in Europe

Reliability of data produced by health apps is cited as a particular concern in Austria (38%) and Germany (36%) compared to Estonia (15%)

More than half of people (55%) cite data reliability concerns, data protection concerns and lack of health system endorsement as among the top three barriers to health app usage

Almost a third of people (31%) are likely to be encouraged to use health apps if they are offered more clarity over what is being done with their personal medical data

The majority of people (71%) are happy to share their health data for research purposes or if it reduces the cost of treating ill health

Public attitudes to eHealth in Europe

Society is becoming increasingly digitised, with technology having a transformative impact on a growing number of public and private services where often a high degree of security and consumer protection is required.

Digital innovation in healthcare has broadly followed successive waves of innovation in other industries. Healthcare systems have used technology to process data since the 1960s, with those in the UK and Germany leading the more systematic digitalisation of health services that began in the 1980s.

Nevertheless, healthcare players have thus far not been able to construct a fully integrated digital healthcare system, with battles over how best to manage data privacy concerns, regulatory barriers and diverging interests within the stakeholder community.

Solutions, or at least more effective answers, to these issues have to be found in order for digital innovation in healthcare to move beyond the traditional emphasis on "big data" processing to a digitalisation which can actually satisfy patient needs. Indeed, the process-centric digitalisation of healthcare to the detriment of patient-focused innovation is a trend reflected by the growing industry of eHealth applications developed to cater for a variety of patient needs.

There are now over 43,000 health apps available. Below is a sample of the most popular health app categories.

| Lifestyle and fitness | Counselling and Mental Health support | Women's health | Personal health data storage | Dieting | Online Doctor |

As people become more comfortable with using digital health services in one form or another, the question is whether healthcare stakeholders are willing to do what it takes to fully unlock the potential of digitalisation for patients.

Given that a cornerstone of digital innovation in healthcare is a robust and secure framework for the sharing of personal health data, the EU's policy agenda is critical due to its exclusive competence over data regulation. There certainly seems to be appetite for change, as reflected in the priorities of the Estonian Presidency of the EU and policy developments (explored in more depth overleaf). Individual Member States also play a pivotal role in implementing EU legislation, in setting the agenda of national healthcare systems and controlling national budget allocation for digital innovation in healthcare.

Whichever way we split the competencies for digital innovation in healthcare, for this growing, cross-cutting policy area to have optimal impact and relevance at EU and national levels, it must be informed by up-to-date knowledge of public attitudes to eHealth.

This is why Incisive Health set out to take the pulse of eHealth in the EU through commissioning polling in seven European countries. Our findings pinpoint where changes need to take place to secure the growth of the eHealth market which, as will be revealed, is anything but certain at the moment.

The EU's policy agenda is critical due to its exclusive competence over data regulation

Policy context

Set against the background of the priority policy areas of the Digital Single Market and the Free Flow of Data as the fifth EU freedom, the domain of digital innovation in healthcare has been a hub of EU policy activity and debate in 2017.

The current drive and appetite for change in the eHealth domain is reflected in the Digital Health Society (DHS) Declaration launched by the Estonian Presidency of the Council of the EU and the European Connected Health Alliance (ECHAlliance) in Tallinn in October 2017.[1]

This centrepiece of the Estonian Presidency was issued as a call to action on the strategies necessary to overcome the barriers to the implementation of digital healthcare solutions. To this end, the DHS Declaration brought together the EU stakeholder community to focus predominantly on issues such as the right of citizens to access, manage and control their health data and the better use of health data.

The DHS Declaration will form the basis for the Council of the EU's recommendations on eHealth to be published in December 2017. It will also feed into the European Commission's Communication on eHealth, which is also expected by the end of the year. As a follow-up to the mid-term review of the Digital Single Market Strategy and a public consultation that ended in October 2017, the communication is to set out possible steps to trigger research and investment in eHealth.[2,3]

With Estonia being the first member of the current trio of Presidencies, it is expected that Bulgaria and Austria, the next two Member States to preside over the Council from January to June and July to December respectively, will continue to pursue the eHealth agenda as part of the trio's collective commitment to furthering the Digital Single Market.

In addition, as of May 2018, EU Member States will be grappling with the entry into force of the General Data Protection Regulation (GDPR), the legal basis for the free movement of personal data in the EU. The GDPR sets out rules to give people more control over their data and provide more security about its use.[4] With provisions for health and genetic data falling under the processing of "special categories of personal data", the extent to which the new framework is implemented consistently across the EU has clear implications for the EU's drive towards a single market for data in e-services, including eHealth.

The area of digital innovation in healthcare has been a hub of EU policy activity and debate in 2017
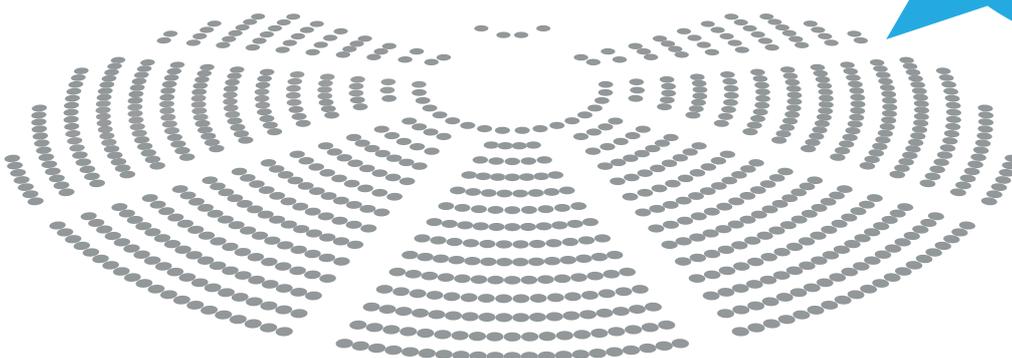
Polling scope, methodology and definitions

Incisive Health commissioned polling in seven European countries: Austria, Bulgaria, Estonia, France, Germany, Italy and the UK.

France, Germany, Italy and the UK were chosen on the grounds of their population size, relatively high expenditure on healthcare, including eHealth, and national policy initiatives on eHealth. Estonia was a clear choice owing not only to its current Presidency of the Council of the EU, but also to its status as a digital pioneer in Europe. Bulgaria and Austria were chosen because of their burgeoning eHealth markets and their forthcoming Presidencies of the EU.

More than 4,000 adults aged 16 or over were polled across the seven countries between 27 September 2017 and 5 October 2017, with 1,000 respondents in the UK and 500 in each of the other countries. The complete data tables for the information presented in this report can be found here.

The survey was conducted by market research company Censuswide from a sample of adults representative of the general population for each of the seven countries.

Where the statistical significance of findings was testable, Censuswide found that all applicable findings are statistically significant. For all other findings, Censuswide provided a margin of error/confidence interval. All findings subject to this method returned a confidence interval of 95%, reflecting a statistically significant p-value of 0.05.

Censuswide abides by and employ members of the Market Research Society which is based on the ESOMAR principles.

Incisive Health undertook the polling to:

- Understand the extent to which eHealth services are being used by the public and the issues that people are most concerned about

- Explore what policy-makers can do to address concerns and encourage people to use eHealth services

- Compare the state of public opinion on eHealth across seven European countries

- Support the case for targeted collaboration between stakeholders to address the issues raised by the polling and ensure the growth of the eHealth market

More than 4,000 adults aged 16 and over were polled across the seven countries

Given that online applications are the most common example of information and communication technologies being used for health purposes, this survey focused specifically on public attitudes to "health apps".

At the start of the survey, respondents were informed that a "health app" has been defined by Incisive Health as "any health app or online health service used to monitor, manage or improve your health, diagnose any health issues, contact a medical professional or store personal medical data".

Respondents were asked:

Have you ever used a health app?

In the last year, how often have you used a health app?

If you have used a health app previously, what did you use the health app for?

What concerns currently prevent you from using a health app or using it more often?

What would encourage you to use health apps more often?

To what extent do you agree or disagree with the following statements?

- *I'm happy to share my health information if it helps researchers discover new treatments for serious ill-health*

- *I'm happy to share my health information if it reduces the costs of treating ill-health*

- *I would only be happy to share my health information with non-profit organisations*

- *As long as I give my consent, I am happy with my health data being used by businesses to make profits*

- *I am concerned that my health information could be hacked*

Key findings

Usage of health apps in Europe

Despite the growing number of health apps available and the widespread public perception that apps are becoming more popular, the polling shows that the use of health apps remains limited. Figure 1 shows that approximately 73% of respondents have not previously used a health app, with a negligible difference in usage between men and women (73% versus 72% respectively).

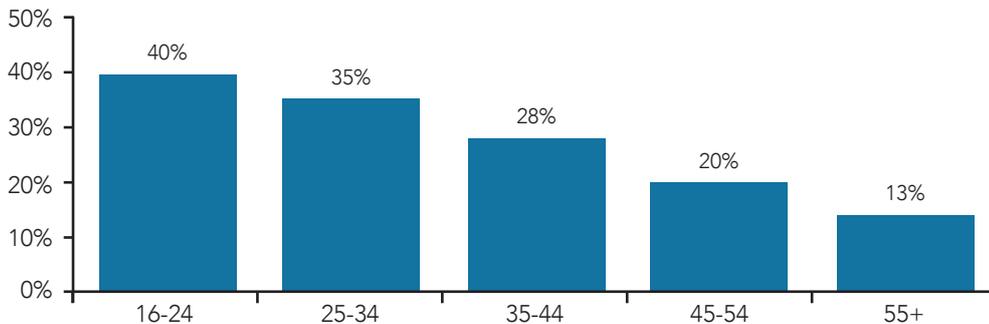### Figure 1 Health app usage

Have you ever used a health app?

No ▪ Yes
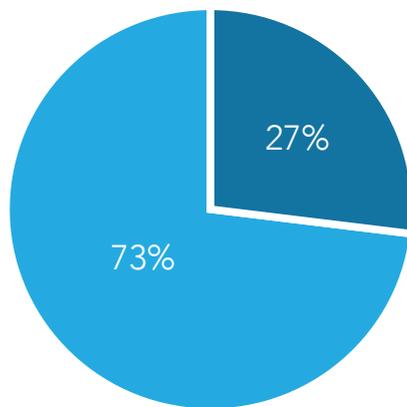
Nearly three quarters of people (73%) have never used a health app

A breakdown of those who use health apps by age range shows that 40% of 16-24 year olds and 35% of 25-34 year olds have already used health apps, the two highest percentages across all age ranges. This reinforces the expectation that younger people tend to access and use digital devices more often than older people. Figure 2 shows that usage decreases as age increases.

Figure 2 Health app users, by age

Have you ever used a health app?

▪ Yes

Three quarters of people using health apps are 34 years old or younger

Figure 3 shows that there is significant variation in usage between countries, with people in France more than twice as likely to use heath apps than people in Germany (40% versus 18%). Figure 14 on page 14 shows that concerns around data protection are particularly prominent in Germany, potentially explaining their apparent reluctant use of health apps. Interestingly, although the Baltic countries are leading the debate on promoting the eHealth economy, the usage of health apps in Estonia (27%) remains behind that in countries such as Italy (35%) and France (40%) where eHealth is further down the health agenda.

Figure 3 Country breakdown of health app usage

Have you ever used a health app?
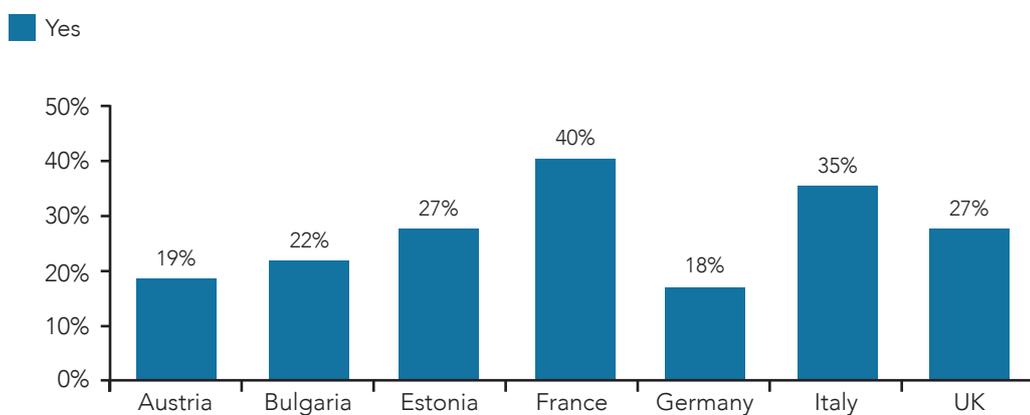
■ Yes

People in France are more than twice as likely (40%) to use a health app than people in Germany (18%)

Figure 4 shows that amongst those respondents who have used a health app, usage is infrequent. 53% of women and 48% of men use a health app less than once a week, with only 14% of people reporting using a health app every day. Men are slightly more likely than women to report using a health app every week.

## Figure 4 Frequency of health app usage by gender

In the last year how often have you used a health app?

■ Men   ■ Women
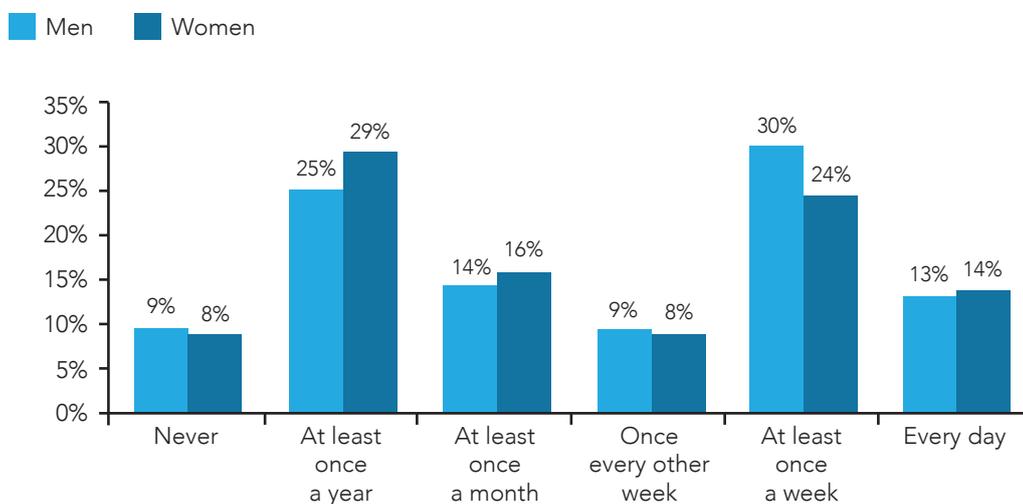
Although Germany has the lowest proportion of people using health apps, those Germans who use health apps do so more frequently. Figure 5 shows that 56% of people using a health app in Germany do so at least once a week, compared to 21% of people in Bulgaria, the country with the lowest frequency of use across the seven countries.

Figure 5 Usage of health apps in the last year

In the last year how often have you used a health app?

- Germany
- Bulgaria
- Average across all seven countries
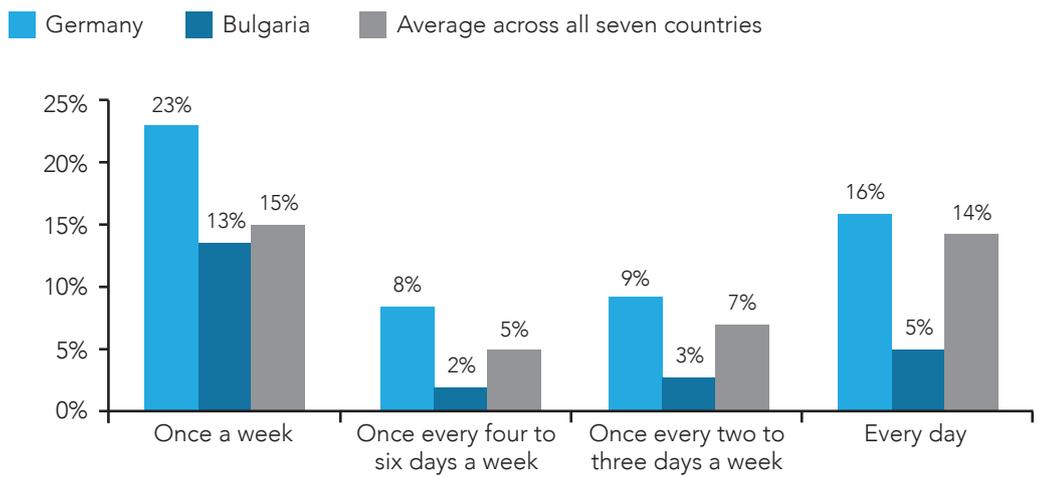
60% of people who use health apps do so less than once a week

Although health app usage remains relatively low, there is a good deal of interest in them. Figure 6 shows that, of the 46% of respondents that had not used a health app before, nearly two thirds (63%) said they would consider using one in the future. This suggests that there is significant eHealth market to be tapped into. For instance, if we draw on Figure 7 and extrapolate the 46% (1,857) of all respondents who had not used a health app but would consider doing so in the future, we have a market potential of 105 million people across the seven countries based on an estimated total adult population of 228 million.

Figure 6 Interest in using health apps among current non-users

Have you ever used a health app?

- No, but I would consider using one in the future
- No, and I wouldn't consider using one in the future
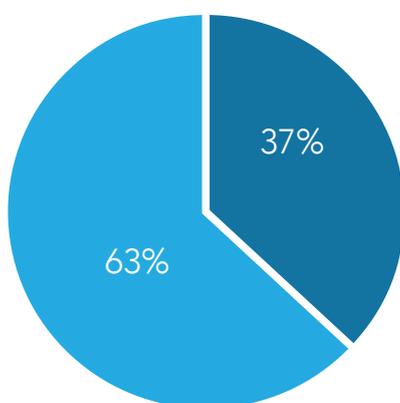
37%

63%

Almost two thirds of people (63%) who are currently not using a health app would consider using one in the future

As shown by Figure 7, people 25 years and older are most likely to use a health app in the future, with half of 45-54 years olds (50%) indicating this. In what could reflect the higher usage rates and the overall utility of health apps for the age group, 16-24 years olds are least likely to say they would use a health app in the future (35%).

Figure 7 Interest in using health apps among non-users, by age

Have you used a health app?

■ No, but would consider using one in the future   ■ Average across all age ranges
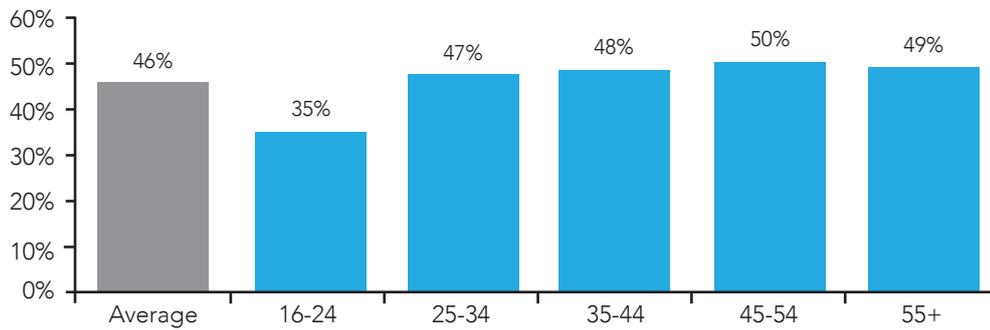

What do people use health apps for?

As set out in Figure 8, the most commonly cited uses of health apps are to maintain a healthy lifestyle (42%), to take greater control over health (38%) and to find out more information on one's own health (34%). A quarter (25%) of respondents used apps to monitor or manage a health condition. Fewer than 8% of respondents indicated that they use health apps to contact a medical professional.

Figure 8 Reasons for using health apps

If you have used a health app previously, what did you use the health app for?
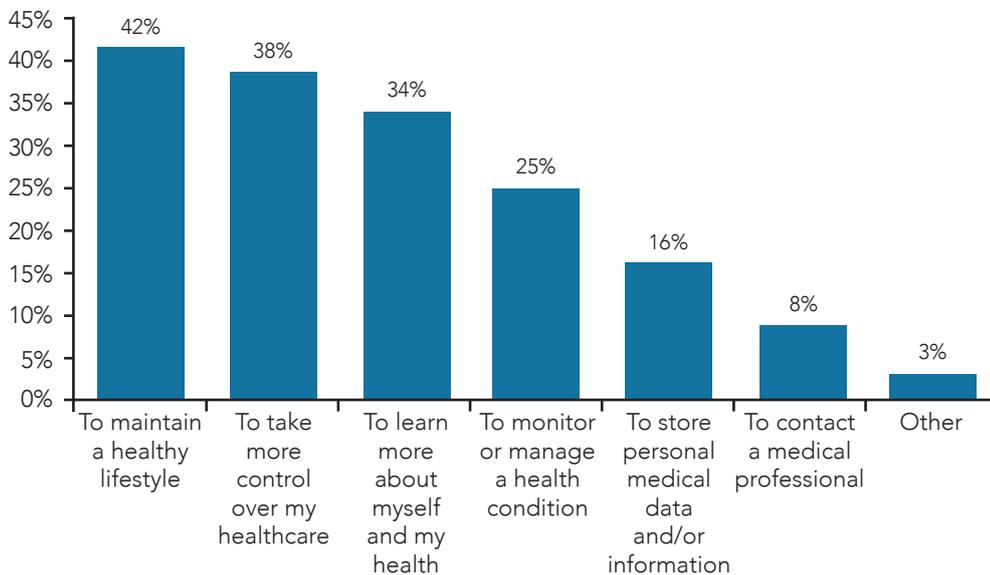

Maintaining a healthy lifestyle is the most common reason why people use a health app

Figure 9 breaks down reasons for using health apps by country. Italians score lowest in using apps to monitor or manage a medical condition at 14%, but highest at 55% when it comes to using health apps to maintain a healthy lifestyle.

Figure 9 Why people use health apps

If you have used a health app previously, what did you use the health app for?
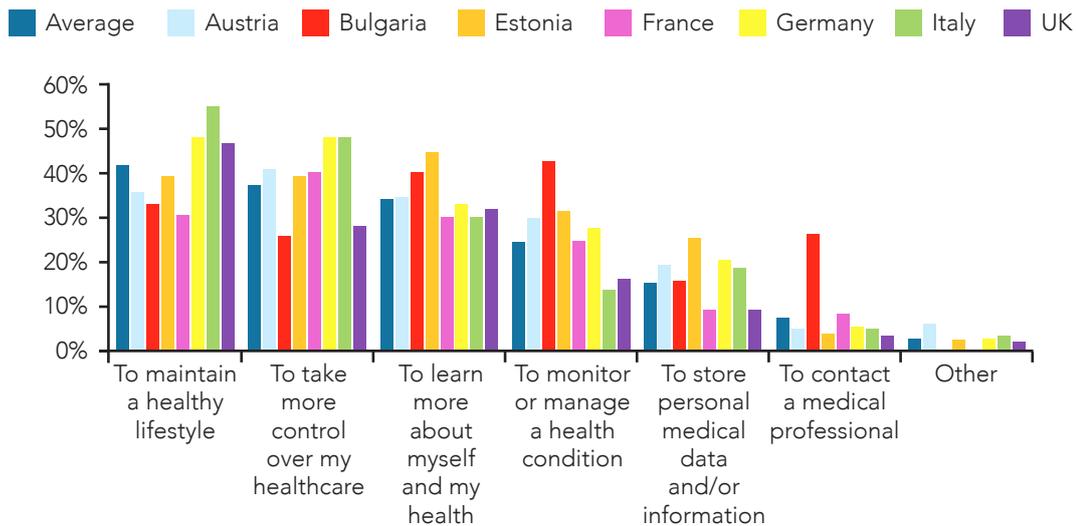
People in Bulgaria use health apps to contact a medical professional more often than people in other European countries

Figure 10 provides a breakdown of why people use health apps by country. People in Bulgaria appear to be more likely to use health apps to manage a health condition or contact a health professional than people in the other countries surveyed. One reason for this might be that health apps represent a valid alternative in countries like Bulgaria where the access to and the quality of primary care has come under scrutiny recently, with a 2017 study on Bulgaria calling for "serious organizational change in primary care provision".[5]

Austria, Estonia, Germany and Italy show very similar attitudes to using health apps to contact a medical professional with only France diverging slightly, with 10% of French respondents saying they use health apps to contact a medical professional.

Figure 10 Country breakdown of why people use health apps

If you have used a health app previously, what did you use the health app for?
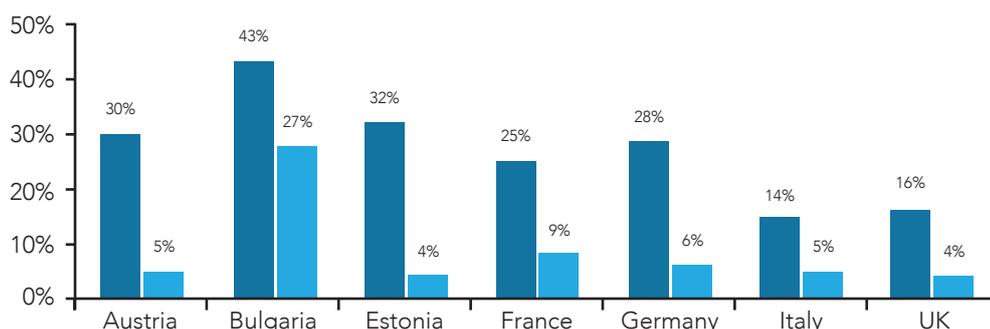
Figure 11 breaks down app usage by age group. Older respondents (55+) are most likely to use health apps to take control over their healthcare or learn about their health, perhaps reflecting the increased burden of ill health in older people. In addition, the use of health apps for the storage of personal data or for contacting a medical professional is most prevalent amongst respondents aged 55+. This suggests that there could be a role for health apps in supporting the management of chronic conditions.

Figure 11 Age group breakdown of why people use health apps

If you have used a health app previously, what did you use the health app for?

Legend: 16-24, 25-34, 35-44, 45-54, 55+
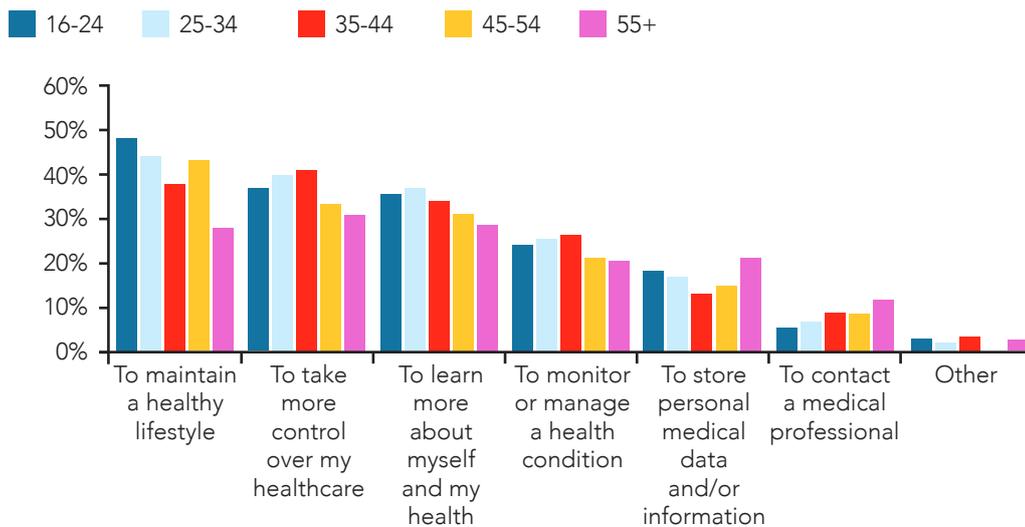
What concerns are preventing people from using health apps?

We asked all respondents what currently prevents them from using a health app or using it more often.

Figure 12 shows the options from which people could choose when identifying what concerns prevent them from using health apps or using them more often.

Figure 12 Concerns that are preventing people from using health apps

What concerns currently prevent you from using a health app or using it more often?

%	Concern
27%	I am concerned about the reliability of the findings provided by the health app
26%	I don't want to pay for a health app
23%	I am concerned about what happens to the data that I enter as part of using the service
13%	I am happy to use a health app to maintain a healthy lifestyle but would not want to use it for serious issues such as monitoring or managing a condition
11%	It takes too much time to enter the required information regularly
10%	I don't know how to use it / it's too difficult to use
7%	The health app doesn't provide me with the information I want
6%	I don't know what to do with the result provided by the health app and they are not recognised by my GP
5%	Other
2%	The health app is not provided in my native language
27%	I have no concerns that currently prevent me from using a health app or using it more often

Lack of trust in health app services is one of the key barriers to greater uptake of health apps in Europe

As Figure 12 reflects, reliability, cost and data concerns are the main factors cited as preventing people across all seven countries from using a health app or doing so more frequently. Reliability comes out on top, with 27% of people saying that concerns over the integrity of findings (whether founded or unfounded) currently stop them from using health apps.

There are variations in national concerns on health apps. As Figure 13 shows, concerns about the reliability of health apps are most pronounced in Austria (38%) and Germany (36%), followed by Italy (32%) and Bulgaria (30%). Estonian respondents (15%), on the other hand, emerge as the least concerned about the reliability of health apps. This amounts to a 23% gap between Austria (most concerned) and Estonia (least concerned).

Figure 13 Proportion of health app users concerned by reliability of findings

I am concerned about the reliability of the findings provided by the health app
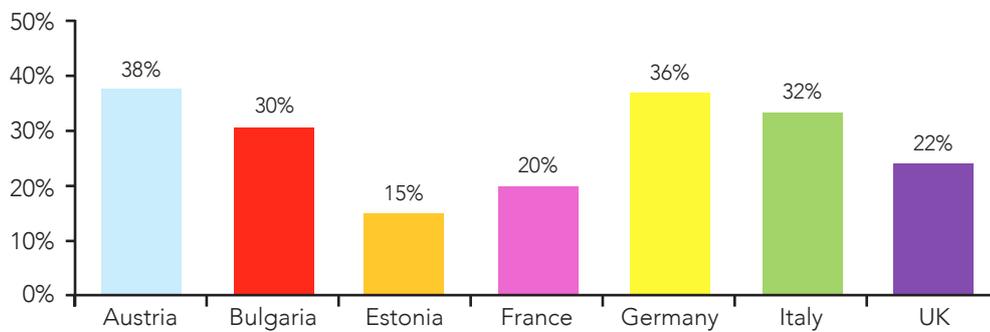

Figure 14 shows that people in Austria (41%) and Germany (39%) are also the most concerned about what happens to their data once they enter it as part of using a health app service. Italian respondents are the least concerned about what happens to the information entered into a health app service. Respondents in the UK and France also show comparatively little concern about data security. Across the seven countries, there is a 28% gap between Austria (most concerned) and Italy (least concerned).

Figure 14 Proportion of health app users concerned about what happens to their data

I am concerned about what happens to the data that I enter as part of using the service
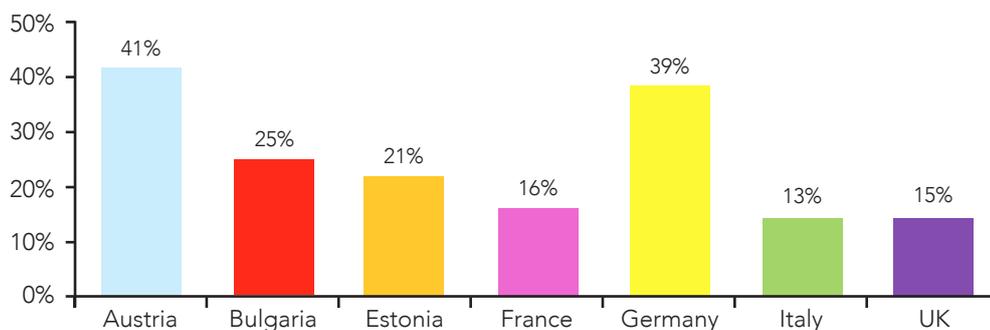
More than half of people (55%) cite data reliability concerns, data protection concerns, lack of health system endorsement as among the top three barriers to health app usage

Reliability of data produced by health apps is cited as a particular concern in Austria (38%) and Germany (36%) compared to Estonia (15%)

What would encourage people to use health apps?

As set out above, there is significant room for the eHealth market to develop, with 46% of respondents indicating that they have not used a health app but would consider doing so. If we extrapolate this across the EU, it suggests a potential market of 150+ million people. However, as shown in the previous section, reliability, cost and data concerns are the main factors preventing people in all seven countries from using a health app or using it more frequently.

Unlocking the growth potential of the eHealth market in the EU is contingent on being able to identify the changes which are necessary to bolster public confidence, translating latent interest into regular usage.

Figure 15 shows the options from which people could choose when identifying what would encourage them to use health apps.

Almost a third of people (31%) are likely to be encouraged to use health apps if they are offered more clarity over what is being done with their personal medical data

Figure 15 Factors that would encourage people to use a health app more often

What would encourage you to use health apps more often?

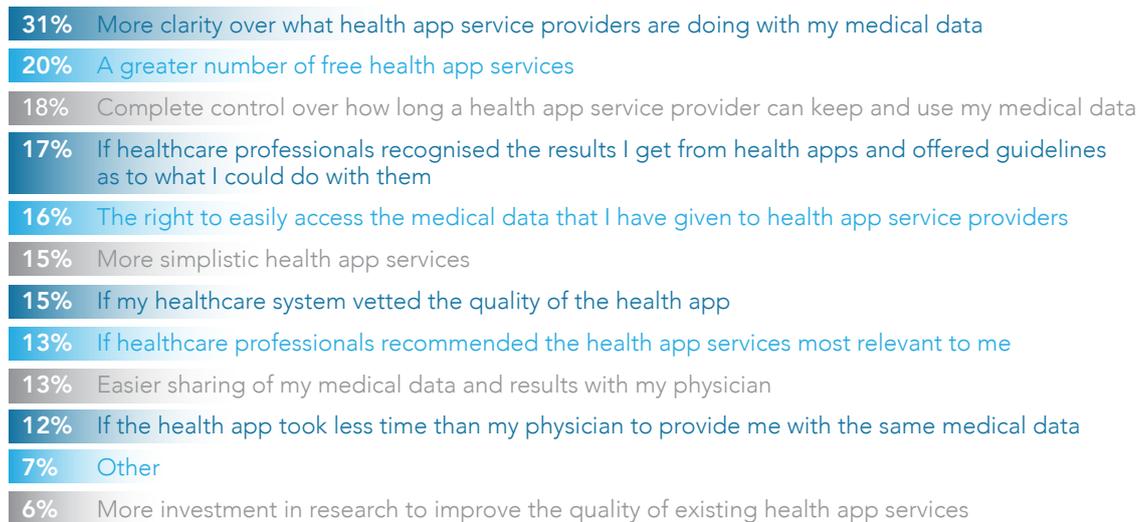|	
31%	More clarity over what health app service providers are doing with my medical data
20%	A greater number of free health app services
18%	Complete control over how long a health app service provider can keep and use my medical data
17%	If healthcare professionals recognised the results I get from health apps and offered guidelines as to what I could do with them
16%	The right to easily access the medical data that I have given to health app service providers
15%	More simplistic health app services
15%	If my healthcare system vetted the quality of the health app
13%	If healthcare professionals recommended the health app services most relevant to me
13%	Easier sharing of my medical data and results with my physician
12%	If the health app took less time than my physician to provide me with the same medical data
7%	Other
6%	More investment in research to improve the quality of existing health app services

Figure 16 shows support for greater clarity on the use of personal health data, broken down by country. As would be expected, respondents from countries in which data concerns were most pronounced (Austria, Bulgaria, Estonia and Germany) are most likely to be encouraged to use eHealth apps if they are offered more clarity over what is being done with their personal medical data.

Figure 16 Country breakdown of attitudes towards usage of personal health data

More clarity over what health app service providers are doing with my medical data would encourage me to use health apps
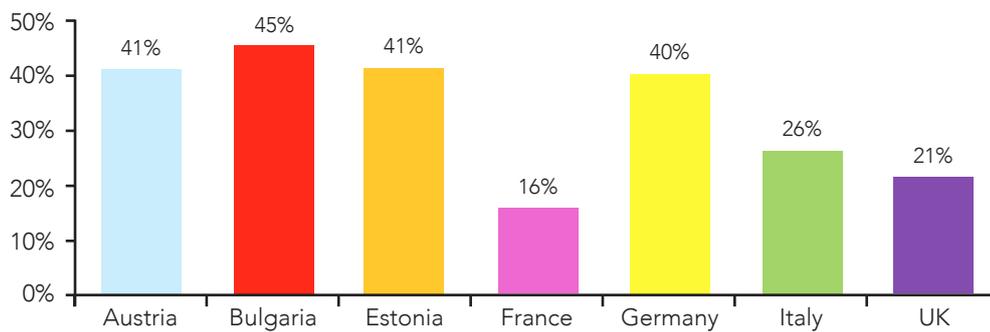
As shown in Figure 17, a lower proportion of respondents state that health system endorsement, in the form of health app vetting (15%) or recognition from health professionals (17%), would encourage them to use health apps.

Figure 17 Attitudes towards endorsement by the national health system

What would encourage you to use health apps more often?
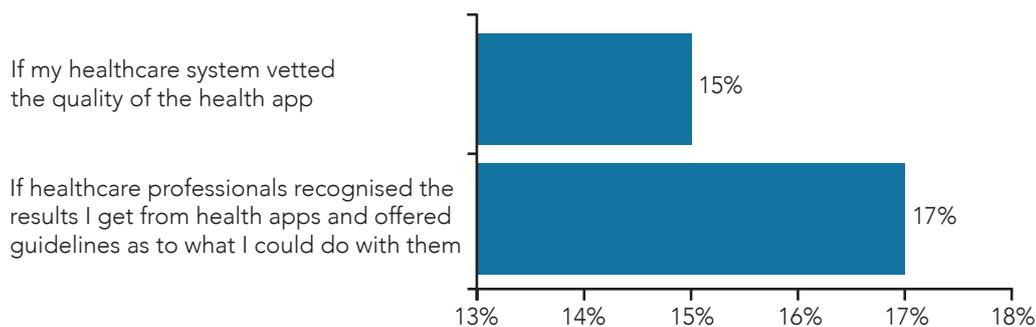
According to Figure 18, Bulgaria and Italy are the countries in which both health system recognition of health apps and their vetting received the most support, with nearly one quarter (22%) of respondents selecting these two options.

Figure 18 Country breakdown of attitudes towards endorsement by national health systems

What would encourage you to use a health app more often?

■ If healthcare professionals recognised the results I get from health apps and offered guidelines as to what I could do with them

■ If my healthcare system vetted the quality of the health app
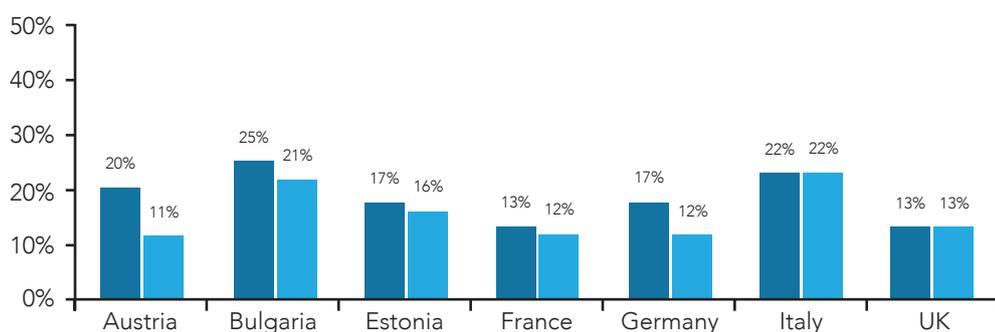
Public attitudes to sharing personal health data

Although there are clear concerns about data security, Figure 19 shows that the majority of people (71%) are happy to share their personal information if it can support research into serious diseases. The results also show that 71% of people would be happy to share their health data if it reduces the cost of treating ill-health.

Figure 19 Public attitudes to sharing personal health data

I'm happy to share my health information if it helps researchers discover new treatments for serious ill-health
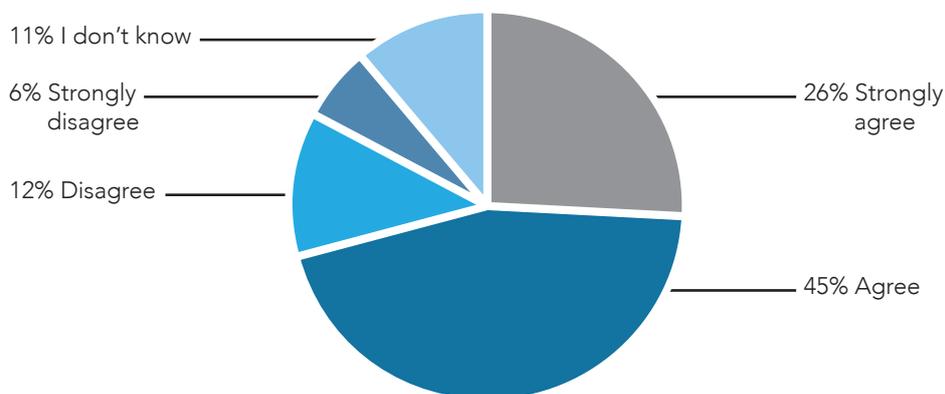

The majority of people (71%) are happy to share their health data for research purposes or if it reduces the cost of treating ill health

However, as shown in Figure 20, just less than one third (31%) of respondents said that they are content to have their data used by businesses which make profits.

Figure 20   Public attitudes to sharing personal health data

As long as I give my consent, I am happy with my health data being used by businesses to make profits

14% I don't know

9% Strongly agree

22% Agree

26% Disagree

29% Strongly disagree
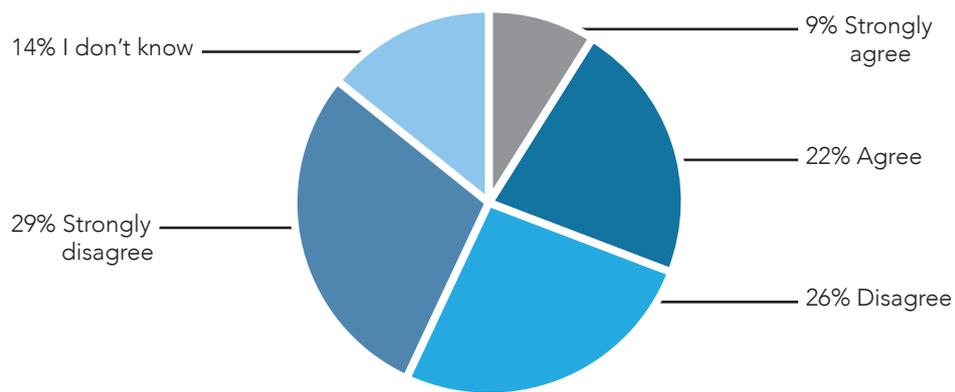
However, more than half of people (55%) are concerned about sharing their personal health data with profit-making businesses

Conclusion

Although there is a good deal of excitement about health apps, our survey shows that use remains fairly limited, with nearly three quarters (73%) of respondents stating they have never used a health app. Yet our study also reveals the potential for health apps to improve the quality and efficiency of health services across Europe. Many people (63%) are open to the idea of using a health app and – importantly – although older age groups are less likely to use an app at present, there is an interest and willingness to do so in the future.

Our study also lays down a challenge to European policymakers. If the potential of apps is to be realised, then the barriers we have identified will need to be addressed. Concerns about reliability, privacy and a perceived disconnect with existing health systems all impact upon people's willingness to use health apps. These are issues over which the EU has "full" or "partial" competence and, as it seeks to carve out a new role for itself in health, they are issues on which action could make a major impact on the lives of European citizens.

It is also clear that no single actor will be able to unlock the potential of health apps. Success will require action from the EU, members states, app developers, researchers and consumers. We hope that this report will play a part in informing the debate on the next steps for eHealth. We look forward to playing our part in bringing together stakeholders and informing better policy to unleash the potential of health apps across Europe.

Incisive Health

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About Incisive Health

Incisive Health is a multi-award-winning consultancy based in London and Brussels specialising in health policy and communications. Our job is to help you create the best case and deliver it in the most compelling way. We know how to cut through the noise and competing priorities to deliver results that enhance our clients' businesses and reputations and – ultimately – improve healthcare for patients.
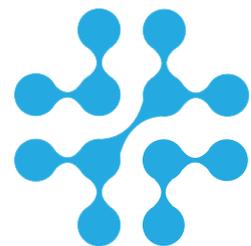
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