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The rise of mobile healthcare applications in the wake of COVID-19

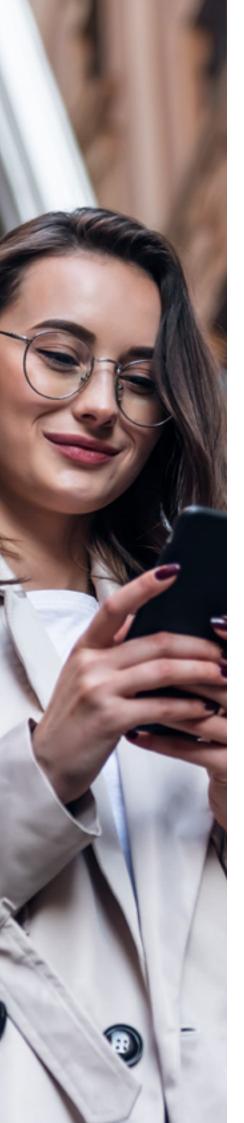




OVERVIEW

Table of contents

CHAPTER 1 Foreword: Teun Schutte, Managing Consultant Healthcare, Mobiquity	3
CHAPTER 2	
Infographic of main findings	5
CHAPTER 3	
Conclusions	10
CHAPTER 4	
Recommendations	14
CHAPTER 5	
About the research	15
CONTACT	
Get in touch	16



CHAPTER 1
Foreword



Teun Schutte,
Managing Consultant Healthcare, Mobiquity

"Solving business frictions in the delivery of mobile healthcare applications"

The COVID-19 pandemic has accelerated digital transformation in healthcare. It has provided a catalyst for patients and healthcare professionals to adopt digital health solutions, such as mobile healthcare applications, in the context of social distancing, mask-wearing and stay-at-home guidance.

For those of us in the digital health space, it has been a transformational time. The pandemic has shown the importance of digital health solutions and the need for increased adoption in the future, while at the same time highlighting the benefits around ease of access to care for patients and lower costs for healthcare providers.

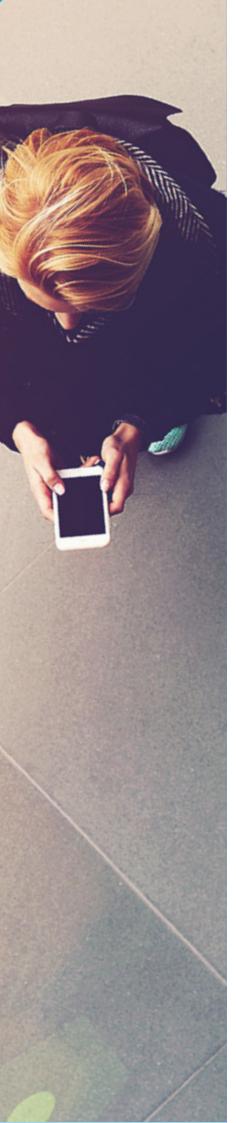


According to Mobiquity's research into digital health adoption during the pandemic, around a third of patients across the Netherlands (35%), the UK (33%) and Germany (32%) had a more favourable experience with mobile healthcare applications in comparison to in-person consultations.



Patients also cited high levels of comfort while using mobile healthcare applications. During the pandemic, nearly three quarters (72%) of patients in Germany said they felt comfortable using mobile healthcare applications. In the UK, over two thirds (69%) of patients felt comfortable using mobile healthcare applications, while almost two thirds (64%) of Dutch patients felt comfortable using them.

The challenge is how to solve frictions in the delivery of mobile healthcare applications in the future. Our research highlighted the main barriers to adoption for patients and practitioners, and the areas we need to optimise to ensure digital innovation is scaled successfully to improve patient outcomes. Indeed, technical issues and privacy concerns need to be solved by aligning stakeholder concerns before launch. For example, over 2 in 5 (43%) patients in German reported that they were concerned about being monitored while using mobile healthcare applications.



To solve these frictions, in preparation for a second generation of digital tools, we firstly need to simplify the digital innovation process into a blueprint for scaling digital health solutions.

At Mobiquity, we've simplified the key lessons learned from our global digital healthcare partnerships into four key areas. Firstly, we strongly believe that the best way to innovate is by following a clearly defined process. Therefore, pre-launch you need to define the digital innovation process clearly and the areas of opportunity – and stick to it. Where, why and how are we delivering human-centric digital health solutions? What business frictions are we solving along the multi-stakeholder journey?

Secondly, once you have aligned the appetite for innovation between all stakeholders and defined the digital innovation process and its opportunities, you can start to validate the solution. This means validating if it works in practice and then building and optimising it based on feedback from stakeholders. Implementation is the next step, and to ensure the digital health solution is market ready, we need to analyse the solution from 3 different angles.

USER VALUE FOR BOTH PATIENTS AND PROFESSIONALS Is there willingness to adopt the solution?

FEASIBILITY

Is there proof that the solution works, both technically and as part of the clinicians' workflows?

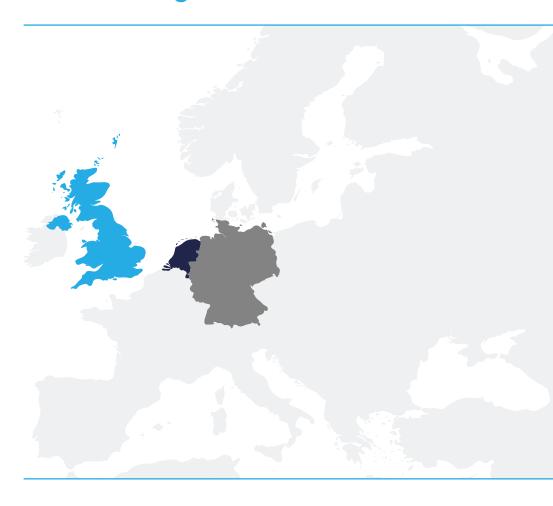
SUSTAINABLE FUNDING

Have we secured funding for the different stages of the project, from idea to implementation?

Finally, once all steps have been completed and the digital innovation process is finalised, we can scale the digital health product or service to other disease areas, hospitals, markets and regions, ensuring that patients receive personalised, quality care through leveraging digital health technologies.



CHAPTER 2 Main findings



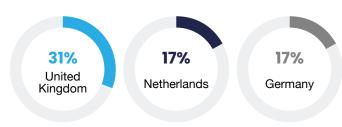
Mobiquity surveyed over 3,000 patients who saw or spoke to their doctor during COVID-19 and over 300 GPs/local doctors who consulted patients during COVID-19 across the United Kingdom, Germany, and the Netherlands on their experience and attitudes towards mobile healthcare applications.

Usage of mobile healthcare applications during COVID-19

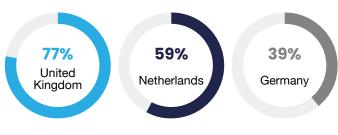
The survey found that mobile healthcare app usage was low among patients across the UK, Germany and the Netherlands.

The most common reason for mobile app usage during the pandemic was cholesterol in the UK and sexual health in Germany and the Netherlands.





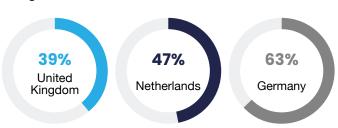
Most common reason for mobile app usage among patients during COVID-19



United Kingdom: Cholesterol Netherlands: Sexual health **Germany:**Sexual health

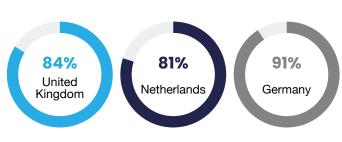
The survey found that GPs across Germany, Netherlands and UK are using mobile healthcare applications more than before the pandemic, as COVID-19 has increased the dependency on remote monitoring.

GPs using mobile healthcare applications more during COVID-19



Awareness is high among GPs in all regions when it comes to mobile healthcare applications, with Germany ahead of the curve.

Level of awareness around mobile healthcare applications high among GPs



Experience of mobile healthcare applications

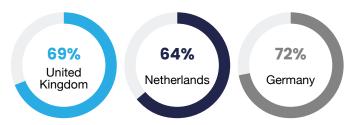
In total, around one third of patients across the Netherlands, UK and Germany had a more positive experience with mobile healthcare applications in comparison to in-person consultations.





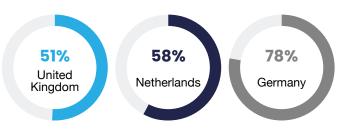
Among those patients who used mobile healthcare applications during the pandemic, patients in Germany were most comfortable using them. In the UK and the Netherlands, levels of comfort were also high.

Patients comfortable using mobile applications

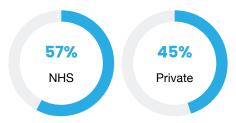


GPs in Germany felt most comfortable using mobile healthcare applications, followed by GPs in the Netherlands and the UK. In the UK, NHS GPs felt more comfortable using mobile healthcare applications than private GPs.



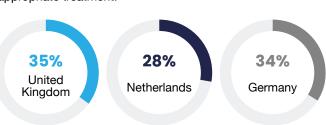


NHS GPs more comfortable using mobile applications compared to private GPs



A large proportion of GPs found using mobile healthcare applications made it easier to prescribe the appropriate treatment. Dutch GPs were less confident in using mobile applications to prescribe the appropriate treatment.

GPs that found mobile healthcare applications made it easier to prescribe the appropriate treatment



Main barriers to adoption: technical issues

The main barriers to adopting mobile healthcare applications among patients varied across the regions.

Main barriers to patient adoption of mobile healthcare applications



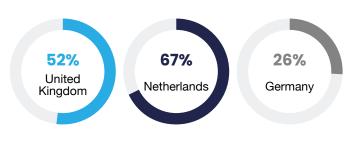
United Kingdom: Privacy concerns

Netherlands: Privacy concerns

Germany:Concerns around being monitored

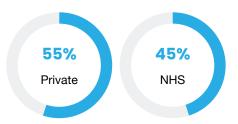
Dutch GPs experienced the most technical issues with mobile healthcare applications, followed by the UK.

GPs
experiencing
technical
issues with
mobile
healthcare
applications



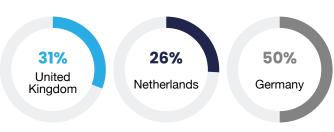
In the UK, NHS GPs experienced less technical issues than private GPs.

GPs that cited technical issues with mobile healthcare applications



In Germany software crashing was the most cited issue with using mobile healthcare applications. Device compatibility problems were the most frequently reported technical issue experienced by UK and Dutch GPs.

Most frequent technical issue experienced by GPs



United Kingdom:

Device

compatibility

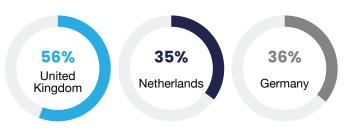
Netherlands:Device
compatibility

Germany:Software crashing

Future of digital healthcare with mobile healthcare applications

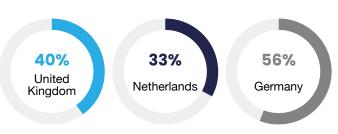
In the future, over half of UK patients would use mobile healthcare applications if they resulted in less waiting time and better patient care. In contrast, only just over a third of German and Dutch patients would use mobile healthcare applications in the future.

Future adoption of mobile healthcare applications by patients



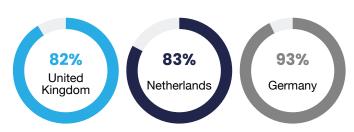
For GPs, the impact of COVID-19 on adoption of mobile healthcare applications differed across each region. In Germany, over half of GPs said the pandemic accelerated the adoption of mobile healthcare applications, while in the UK only 2 in 5 agreed. In the Netherlands, just a third of GPs reported COVID-19 accelerating the adoption of mobile healthcare applications.

Impact of COVID-19 on GP adoption of mobile healthcare applications



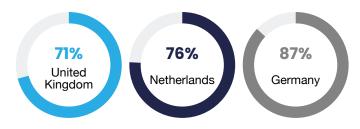
The survey also found that over three quarters of GPs in all three regions believe that mobile healthcare applications will be important in the future of medicine.

Importance of mobile healthcare applications to the future of medicine



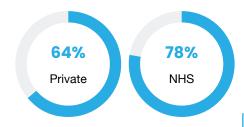
German GPs are leading the way when it comes to adopting mobile healthcare applications in the future, with nearly 4 in 5 GPs likely to adopt applications as part of their practice. This is followed by the Netherlands and then the UK.

Likelihood of future adoption among GPs



NHS GPs are more likely to adopt mobile healthcare applications in the future than private GPs.

GP likelihood of adopting mobile healthcare applications in the future





CHAPTER 3 Conclusions

UK patients and German GPs leading the way in mobile healthcare application usage during COVID-19

COVID-19 has accelerated digital transformation, causing a larger uptake of mobile healthcare applications among patients and GPs.



The research shows UK patients are using mobile healthcare applications at a higher rate during COVID-19 than German and Dutch patients. In the UK, nearly one third (32%) of patients surveyed had used mobile healthcare applications with their doctor. In Germany (17%) and the Netherlands (17%), less than 1 in 5 patients had used mobile healthcare applications during the pandemic.

The findings show the most common reasons for patient use of mobile healthcare applications. In the UK, nearly 4 in 5 (77%) of patients are using applications to monitor cholesterol, with nearly 4 in 5 (77%) of patients using an app for this treatment. In Germany and the Netherlands, the most common reason was sexual health, with over half (59%) of Dutch patients and 2 in 5 (39%) German patients using mobile applications for sexual health treatment.

We can identify from the data around levels of usage before and after COVID-19. GPs in Germany are using mobile healthcare applications more than before the pandemic, as COVID-19 has increased reliance on digital technologies. Interestingly, less than half of GPs in the Netherlands (47%) and the UK (39%) are using mobile healthcare applications more than before COVID-19.

Levels of awareness around mobile healthcare applications are high across all regions surveyed. Awareness of mobile healthcare applications among GPs is highest in Germany, with 9 in 10 (91%) citing knowledge of them. Levels of awareness are also high among GPs across the UK (84%) and the Netherlands (81%).



A third of patients had a better experience with mobile healthcare applications than in-person consultations



Patient experience of mobile healthcare applications during COVID-19 was overall positive. Around one third of patients across the Netherlands (35%), the UK (33%) and Germany (32%) had a more favourable experience with mobile healthcare applications in comparison to in-person consultations.

Patients cited high levels of comfort when using mobile healthcare applications. During the pandemic, nearly three quarters (72%) of patients in Germany said they felt comfortable using mobile healthcare applications. In the UK, over two thirds (69%) of patients felt comfortable using mobile healthcare applications, while almost two thirds (64%) of Dutch patients felt comfortable using them.

Levels of comfort among GPs high across all regions

The survey found that over half of GPs in all regions felt comfortable using mobile healthcare applications.



In the UK, NHS GPs felt more comfortable using mobile healthcare applications than private GPs. Over half (57%) of NHS GPs said they felt comfortable in comparison to under half (45%) of private GPs.

Over a third of GPs in the UK (35%) and Germany (34%) found that using mobile healthcare applications made it easier to prescribe the appropriate treatment. GPs in the Netherlands were less confident, with over a quarter (28%) of GPs finding mobile applications made it easier to prescribe the appropriate treatment.



Technical issues and privacy concerns halt adoption of mobile healthcare applications

The main barriers to adopting mobile healthcare applications among patients differed across all three regions.

In the UK, the main barrier was internet connection concerns when transferring data, according to over a quarter (29%) of patients. In the Netherlands, the most common barrier to adoption was privacy concerns, reported by a third (33%) of Dutch patients using mobile healthcare applications. In Germany, the main barrier was patient concerns around being monitored, which was reported by over 2 in 5 (43%) patients.



The research also shows that among GPs that used mobile healthcare applications, Dutch GPs experienced the most technical issues, with over two thirds (67%) of GPs in the Netherlands experiencing technical issues with mobile healthcare applications. This was followed by the UK, with over half (52%) of GPs experiencing technical issues. In Germany, over a quarter (26%) of GPs experienced technical issues, the lowest rate of any region.

In the UK, NHS GPs experienced less technical issues than private GPs, with over half of private GPs (55%) experiencing technical issues when using mobile healthcare applications, compared to less than half (45%) of NHS GPs.

For GPs, device compatibility problems were the most frequently reported technical issue experienced by UK and Dutch GPs. In the UK, just under a third (31%) of GPs experienced this issue while using mobile healthcare applications. In the Netherlands, over a quarter (26%) of GPs faced similar issues.

In contrast, half (50%) of GPs using mobile healthcare applications experienced software crashing in Germany – highlighting a significant barrier to the adoption of digital health technologies during the pandemic for GPs.



Future of healthcare: Most UK patients and GPs adopting mobile healthcare applications in the future



UK patients would use mobile healthcare applications if they resulted in less waiting times and better patient care. The research shows that over half (56%) of UK patients would use mobile healthcare applications in this instance. However, this was only the case for over a third of German (36%) and Dutch patients (35%).

COVID-19 has resulted in cultural variation in the speed of adoption among GPs across the Netherlands, UK and Germany. In Germany, over half (56%) of GPs said the pandemic accelerated the adoption of mobile healthcare applications, while in the UK only 2 in 5 (40%) agreed. In the Netherlands, a third (33%) of GPs reported COVID-19 accelerating the adoption of mobile healthcare applications.



GPs across all regions cited that mobile healthcare applications will be important in the feature of medicine. 9 in 10 (93%) GPs in Germany believe mobile healthcare applications will be important to the future of medicine. This was followed by 83% of GPs in the Netherlands and 82% of GPs in the UK.

Germany is the most mature market when it comes to the adoption of mobile healthcare applications. Nearly 4 in 5 (87%) GPs cited that they are likely to adopt applications as part of their practice in the future. This is followed by the Netherlands, with over three quarters (76%) of GPs adopting mobile healthcare applications as part of their practice. In the UK, 71% of GPs said they would adopt mobile healthcare applications as part of their practice.

According to our research, levels of willingness to adopt mobile healthcare applications in the future were highest among NHS GPs in the UK. Over three quarters (78%) of NHS GPs reported that they would adopt mobile healthcare applications as part of their practice, compared to less than two thirds (64%) of private GPs.



CHAPTER 4

Recommendations

The research shows there are clear benefits to using mobile healthcare applications to improve patient outcomes and treatment. The COVID-19 pandemic has rapidly accelerated digital transformation in healthcare, with a rise in usage and adoption of these digital tools, for both patients and healthcare professionals.

However, the pandemic has also highlighted the limitations of mobile healthcare applications, including the frictions that the healthcare industry needs to solve in preparing for a second generation of digital tools.

NAVIGATING THE MULTI STAKEHOLDER JOURNEY

To ensure that mobile healthcare applications are successful, the healthcare industry needs to solve frictions in the multi stakeholder journey - removing the barriers to adopting digital technologies among patients and GPs.

This can be achieved by taking a holistic digital strategy, understanding and implementing analysis from stakeholders into the roll out of digital healthcare solutions. For example, concerns around privacy and data collection, as highlighted in our findings, are a key barrier to adopting mobile healthcare applications among patients and practitioners.

OVERCOMING FRICTIONS THROUGH TRAINING

Another area that will support the uptake of mobile healthcare applications, is improvements in training for healthcare professionals.

Effective training is crucial in the delivery of mobile healthcare applications. The technical issues reported by GPs represent key frictions that can be solved with improved awareness of how to use mobile healthcare applications and their associated benefits. For example, this could be ensuring that healthcare professionals have a support network when using digital health solutions.



CATERING TO REGIONAL VARIATION

Digital healthcare helps to create personalised patient care, and mobile healthcare applications need to be built properly to ensure that each patient feels they are receiving the best standard of care.

At the same time, regional demands should be taken into account when creating mobile healthcare applications. A different user experience or an emphasis on certain features are all elements to consider in creating digital health solutions that address cultural nuances.

THE FUTURE OF HEALTHCARE

For mobile healthcare applications to be successful the industry must focus on creating human-centric digital health solutions.

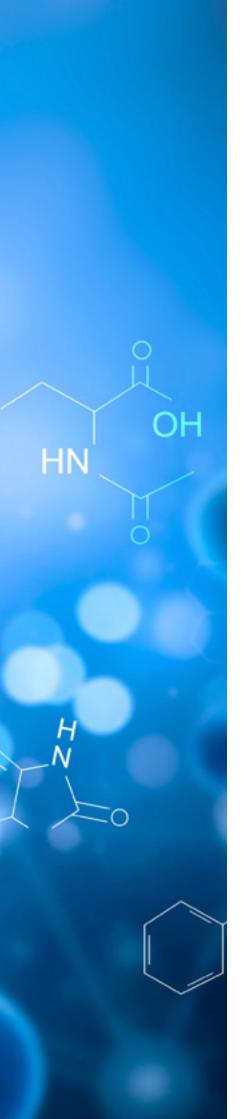
Solving frictions in the multistakeholder journey, prioritising practitioner training to limit the impact of technical issues, and optimising apps through regionalisation and personalisation will enable the continued scaling of mobile healthcare applications in the future.

According to our research, over three quarters of GPs in the UK, Germany and the Netherlands believe mobile healthcare applications will be important to the future of medicine. The challenge now is to ensure that there is a standardised approach for patients to receive the best standard of care. For us to achieve better patient outcomes, the industry needs to implement digital products and services that serve a purpose by blending strategy, design and engineering.

CHAPTER 5

About the research

The research was conducted by Censuswide, with 3,310 respon- dents in total across 2 surveys; 301 GPs/local doctors in the UK, in Germany, in Netherlands and 3,009 respondents who have seen or spoken to a GP in the UK, in Netherlands and Germany. Both surveys ran between 13.11.2020-23.11.2020. Censuswide abide by and employ members of the Market Research Society which is based on the ESOMAR principles.





part of **HEXAWARE**

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About Mobiquity

Mobiquity is a full-service digital transformation enabler that delivers compelling digital products and services that serve a purpose, by blending strategy, creative and engineering. We apply a sector ag- nostic approach to human centered innovation applied with in-depth industry expertise.

Founded in 2011 with a focus on mobile technology solutions, Mobiquity has adapted to client needs across 9 different geograph- ical locations, providing end-to-end omnichannel digital services to leading B2B and B2C brands.

Mobiquity's global team of 800+ employees serves over 100 million users every day. The company takes shared ownership and account- ability throughout the entire clients' project life cycle, enabling digital transformation success.

Mobiquity has extensive experience in working for all relevant stake- holders in Healthcare, and is committed to accelerating the transfor- mation of healthcare by putting people in charge of their own health enabled by human centered innovation.

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